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**Impact of Changes in the Global
Financial Regulatory Landscape on
Asian Emerging Markets**

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Abstract

This paper discusses the relevance of Basel III to Asian emerging markets. It reviews some of the proposed regulations of Basel III in order to evaluate their likely implications for, and their ability to enhance, the stability of the banking and financial system. This is followed by a discussion on the challenges faced by the regulators of Asian emerging markets in effectively managing their financial regulations, given their capacity and institutional constraints. The paper concludes with policy recommendations for Asian emerging markets to strengthen and enhance the stability of their banking and financial systems.

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1. INTRODUCTION

The global financial crisis in 2008 can be attributed to a number of factors, but the main root causes were (i) inadequate supervision, including a large unregulated shadow banking sector; and (ii) systemic risks originated from financial imbalances in several economies and the interconnectedness of financial institutions' balance sheets through leverage and the creation of opaque products. In response, the Basel Committee on Banking Supervision (BCBS) developed a new financial regulatory framework to reform, improve, and strengthen the finance sector, as well as to reduce systemic risks and enhance financial stability, taking into account the lessons learned from the crisis. The G20 nations have also called for international financial institutions to work on a number of reforms to strengthen the stability of the global financial system. These proposals, collectively called Basel III, released in December 2010, are extensive, with multiple dimensions and components. The implementation of capital requirements, a major component of Basel III, is due to start from January 2013 according to a phase-in timetable. In addition, there are already some regulatory and legislative changes at the national level, such as the United States (US) Dodd-Frank Wall Street Reform and Consumer Protection Act and the European Market Infrastructure Regulation, which will no doubt have implications beyond their respective borders. Because of the extensive coverage and implications, Basel III is expected to substantially change the global financial regulatory landscape.

In this paper I will discuss the relevance of Basel III to Asian emerging markets (AEMs) and review some of the proposed regulations of Basel III in order to evaluate their likely implications for, and their adequacy in enhancing, the stability of the banking and financial system. This will be followed by a discussion on the challenges faced by the regulators of AEMs, given their capacity and institutional constraints, in effectively managing their financial regulations. The paper concludes with policy recommendations for AEMs to strengthen and enhance the stability their financial systems. Where appropriate, my experience at the Bank of Thailand will be drawn upon.

2. THE RELEVANCE OF BASEL III TO ASIAN EMERGING MARKETS

AEMs had fairly resilient economies and financial markets when the 2008 global crisis broke out. Economies that experienced major challenges during the 1997 Asian crisis in particular had revamped their supervisory frameworks to be risk-focused, requiring banks to put in place robust risk management systems. Apart from the problems of temporary liquidity squeezes and dollar shortages in some economies in September–October 2008, most AEMs did not have major finance sector difficulties. The impacts of the global crisis were felt indirectly via the trade channel, with exports and imports plummeting, leading to generally two quarters of economic slowdown or contraction, but the affected economies rebounded strongly afterwards. Therefore, one may have the impression that all of these regulatory reforms are meant for the crisis-hit advanced economies and are not relevant to AEMs. In fact, there are at least three reasons why Basel III and other ongoing regulatory reforms are highly relevant to AEMs:

1. The world economy has long been integrated through trade, but more recently financial markets have become highly integrated due to technological and financial innovations. A major crisis in one corner of the world can bring about contagion and have significant adverse impacts on the rest of the world, as was witnessed in the 2008 global crisis. Hence, it would be in the interest of all countries, including AEMs, to ensure that Basel III is sufficiently comprehensive to bring about safe and sound individual financial institutions and stability in financial markets. The

financial products, services, and markets of AEMs are mostly less diverse and less sophisticated than those in advanced economies, with the finance sector playing the conventional role of financial intermediary, providing mostly plain "vanilla" products. Hence, some Basel III regulations, such as those on securitization, may not be directly relevant to some AEMs currently. However, with continued financial market deepening, the risk profiles of AEM financial markets will change and become more complicated. A comprehensive regulatory framework to tackle different risks will no doubt further strengthen the stability of the domestic financial systems in AEMs.

2. Foreign banks are present in all AEM economies, and this can be fairly significant in some cases. Basel III will have direct implications on these foreign operations. In addition, although there has been some emerging market participation in the formulation of some Basel III components, most proposed regulations are formulated and calibrated based mainly on the contexts and data of advanced markets, which can be significantly different from the those of AEMs. Hence, it is in the interest of AEMs to ensure that the regulations proposed by Basel III are also appropriate for emerging markets.

3. Even though most AEMs are currently resilient, they can be susceptible to financial instability, partly because of the lack of depth of their financial markets and partly because of insufficient data for monitoring and policy analysis, among other things. Data on housing and real estate (a sector prone to financial imbalances) are usually grossly inadequate. Small AEMs, in particular, lack adequate instruments to deal with global volatilities and capital flows. Hence, Basel III regulatory proposals on countercyclical and macroprudential measures are of particular interest to AEMs in further enhancing their economic and financial stability.

3. THE ADEQUACY OF BASEL III IN REGULATORY REFORM

Is Basel III able to answer to concerns and expectations of AEMs? The following table gives a summary of the different components and measures proposed by Basel III:

Table 1: Proposed Regulatory Reforms: Basel III and Related Measures

Measure	Key Features	Implementation Timeline
1. Basel III 1.1 Capital	❖ Definition of capital: Raise both quantity and quality of capital	2013 – 2015
	• Quantity: minimum Common Equity Tier 1 (CET1) Ratio = 4.5%, Tier 1 Ratio = 6.0%, Total Capital Ratio = 8.0%	2013
	• Quality: Define “common equity” as core capital and enhance inclusion criteria of Additional Tier 1 and Tier 2	2016 – 2019
	❖ Capital buffers: Build up common equity above the minimum capital requirement	2013
	• Conservation 2.5%	2018
	• Countercyclical 0%–2.5%	
	❖ Risk coverage: Refine the calculation of risk-weighted assets for better prudence	
	❖ Leverage ratio: Non-risk-based supplementary measure to constrain excessive leverage	

<p>1.2 Liquidity</p>	<ul style="list-style-type: none"> ❖ Liquidity risk measurement: <ul style="list-style-type: none"> • Liquidity coverage ratio: banks to maintain adequate liquidity for a severe stress scenario for up to 30 days • Net stable funding ratio: banks to maintain sustainable maturity structure of assets and liabilities over 1-year horizon ❖ Monitoring tools: <ul style="list-style-type: none"> • Set of harmonized metrics to capture additional information on banks' liquidity profiles 	<p>2018</p>
<p>1.3 Global Systemically Important Banks (G-SIBs)</p>	<ul style="list-style-type: none"> ❖ SIFIs to have higher loss absorbency capacity, with additional progressive CET1 requirement ranging from 1.0% to 2.5% ❖ Identification of SIBs to use quantitative indicators and qualitative elements 	<p>2016</p>
<p>2. OTC Derivative Market Reform</p>	<ul style="list-style-type: none"> ❖ All standardized OTC derivative contracts to be traded on exchanges or electronic trading platforms, and cleared through central counterparties ❖ OTC derivative contracts to be reported to trade repositories. Non-centrally cleared contracts subject to higher capital requirements 	<p>End 2012</p>
<p>3. Procyclicality 3.1 Capital buffers</p>	<ul style="list-style-type: none"> ❖ Capital conservation buffer: build up buffer to increase banking sector resilience going into a downturn ❖ Countercyclical buffer: build up buffer for broader macroprudential goal of protecting the banking sector in periods of excess aggregate credit growth 	<p>2016–2019 2016–2019</p>
<p>3.2 Forward looking provisioning (IFRS 9)</p>	<ul style="list-style-type: none"> ❖ IASB/FASB/BCBS to consider moving from “incurred loss” to “expected loss” provisioning, i.e., provisioning on performing loans in good time before they turn nonperforming 	
<p>4. Macroprudential Policy Tools and Framework</p>	<ul style="list-style-type: none"> ❖ FSB, IMF, and BIS to do further work on macroprudential policy frameworks, including tools to mitigate the impact of excessive capital flows 	
<p>5. Shadow Banking</p>	<p>FSB's proposal:</p> <ul style="list-style-type: none"> ❖ Definition: system of credit intermediation that involves entities and activities outside the regular banking system, focusing particularly on the interconnectedness within the financial system that may cause systemic risk and regulatory arbitrage ❖ Three steps for monitoring the shadow banking system <ul style="list-style-type: none"> • Map overall shadow banking • Identify concerns regarding shadow banking • Detailed assessment of systemic risk and regulatory arbitrage concerns 	

Notes: SIFI = Systemically important financial institution, IASB = International Accounting Standards Board, FASB = Financial Accounting Standards Board, BCBS = Basel Committee on Banking Supervision, FSB = Financial Stability Board, IMF = International Monetary Fund, BIS = Bank for International Settlements.
Source: Bank of Thailand, Financial Institution Strategy Department and Prudential Policy Department.

The increased minimum capital requirement with more focus on Tier 1 and improved quality of capital enables banks to absorb losses better and improve the resilience of individual financial institutions to better withstand shocks. Other requirements on capital buffers to build up capital in good times, leverage, liquidity, systemically important financial institutions, improvement of market infrastructure (such as a clearing and settlement mechanism), better collection of data, and monitoring through exchanges aim to reduce the interconnectedness and systemic risk of the finance sector, in addition to strengthening individual institutions. Regulations are also being extended to financial institutions other than banks. There is no doubt that Basel III is a significantly better regulatory framework to deal with the root causes of the recent crisis, but weaknesses remain, as follows:

1. Like its predecessor Basel II, Basel III focuses substantially more on rules and regulations than supervision. More specifically, the focus is on Pillar 1 even though Pillar 2 is more important. A brief description of Pillar 2 of Basel II may be helpful. Pillar 2 is about supervisory review for supervisors to ensure that banks comprehensively assess risks and have adequate risk management with adequate oversight of the board. If a supervisor does not believe the level of capital and risk management is commensurate with the bank's risks, it would demand corrective actions which may include additional capital. In short, Pillar 2 focuses on risk management of banks and requires supervisors to take discretionary supervisory measures when necessary. Pillar 2 also spells out the supervisory review process for certain products and risks. In the case of securitization, for example, supervisors should review aspects such as the extent of risk transfer and market innovation and, if the associated risks are deemed excessive, the supervisor should require a reduction of exposure or capital increase or a combination of both. Despite these clearly defined principles, supervision and risk management in some countries had been weak before the global crisis, partly because of the opacity of products but also due to inadequate attention to risky behaviors (such as granting loans without verifying a borrower's income and risky products (such as interest-only mortgages). There was also excessive reliance of supervisors on self-control and self-regulation of banks, believing in market mechanisms and that banks with risky behaviors would be penalized by the market. Had supervision and risk management been more vigorous, in line with what Pillar 2 prescribes, weaknesses in the finance sectors associated with lax credit underwriting standards, securitization of subprime mortgages, and excessive leverage before 2008 could have been detected and corrective actions could have lessened the extent of, if not totally prevented, the global financial crisis.

From the Bank of Thailand's supervisory experience, I cannot overstate the importance of supervision and risk management. After the 1997 Asian crisis, the Bank of Thailand (BOT) revamped its supervisory framework to focus on risks, ensuring banks have a good risk management system in place and holding bank management and boards accountable for their risk management. It took a few years before both the supervisory staff and bank management were comfortable with the switch from compliance to risk-based supervision, but risk management has since become a critical part of banking business and bank supervision. At the time of the 2008 global crisis, the Thai banking sector's investment in Collateralized debt obligation-related products accounted for only about 0.1% of total assets, in spite of the fact that there was no regulation against investing in such products and, because of the sluggish domestic economy, banks had abundant liquidity to make the investment if they wanted to. I had learned from a few bankers that they did not invest in these products because they were opaque and difficult to understand their risks. No doubt lessons from the Asian crisis and the continued risk focus of both the supervisor and banks fostered such a prudent attitude. In today's fast-changing world with new technologies and innovations, the nature and the sources of risks are likely to shift rapidly, making it difficult to have adequate regulations to deal with the

changing risks. I, therefore, believe that risk-based supervision and risk management—not regulations—are the most important ingredients for a safe and sound finance sector.

Coming back to Basel III, Pillar 2 is also about risk management and supervision similar to that of Basel II with additional principles, learning from the last crisis. The BCBS has issued a consultative paper on the revision of the core principles for banking supervision to strengthen supervisory practices and risk management. The core principles also respond to several key trends and developments that emerged during the last few years of market turmoil, such as the need for greater intensity and resources to deal effectively with systemically important banks, and the importance of applying a system-wide macro perspective to the microprudential supervision of banks.¹ The proposed revised core principles are a significant improvement over the current set. However, my concern is that, because of its lack of enforceability, Pillar 2 may not be adopted, as happened to Pillar 2 of Basel II.

I strongly believe it should be mandatory for systemically important countries, with large finance sectors and a significant bearing on other countries, to take part in the World Bank–International Monetary Fund (IMF) joint assessment of the Financial Sector Assessment Program and Review of Standards and Codes. This will enable international assessment and surveillance of the adequacy of supervisory frameworks and risks and resilience of the finance sectors of these countries according to international standards and codes, such as the Basel Core Principles for Supervision.

The problem is, of course, that we cannot realistically expect the World Bank or the IMF to successfully push for such a requirement, given that most systemically important economies are major shareholders and voters in these international financial institutions. This is where the BCBS can make significantly more effort to ensure support from the global community for such a requirement or work out alternative mechanisms for enforcement. There are enforcement mechanisms that have been proposed, e.g., by Eichengreen² and Claessens.³ Eichengreen's proposal is to create a world financial organization, analogous to the already existing World Trade Organization, which would establish principles for prudential supervision obligatory for all countries seeking freedom of access to foreign markets for domestically chartered financial institutions. Importantly, a world financial organization would authorize the imposition of sanctions against countries that fail to comply with international standards for supervision and regulation of their financial markets and institutions. Other members would be within their rights to restrict the ability of banks and nonbank financial institutions chartered in the offending country to do business in their markets. In a similar proposal, Claessens has proposed creating an international charter for banks engaged in cross-border activity. Internationally active banks would be required to secure a charter from an international college of supervisors and be subject to its supervision. When the members of the college determined that a bank was in violation of its charter, it could impose cease-and-desist orders, limit the operations of said institutions, and require remedial action. The BCBS can further pursue these proposals or

¹ Basel Committee on Banking Supervision. 2011. Consultative paper on revised core principles for effective banking supervision. 20 December.

² Eichengreen, B. 2008. Not a New Bretton Woods but a New Bretton Woods Process. In *What G20 Leaders Must Do to Stabilize our Economy and Fix the Financial System*. Edited by B. Eichengreen and R. Baldwin. VoxEU. 11 November.

³ Claessens, S. 2008. The New International Financial Architecture Requires Better Governance. In *What G20 Leaders Must Do to Stabilize our Economy and Fix the Financial System*. Edited by B. Eichengreen and R. Baldwin. VoxEU: 11 November.

propose its own with the objective of enforcing the adoption of risk-based supervision and risk management along the lines of Pillar 2 and the Basel Core Principles for Banking Supervision.

2. Preventing moral hazard by providing the right incentives is important in discouraging excessive risk behaviors. In my view, Pillar 2 of Basel III and the Basel Core Principles on Banking Supervision should include the principle of remuneration of bank management, which should reflect long-term performance and/or risk-adjusted returns of the bank. In addition, bank management who fail a bank with reckless behaviors must face consequences. Under the Thai Banking Act, the top management and members of the board of directors of a failed bank will be removed. Those suspected of fraudulent behaviors and/or gross negligence will be prosecuted, and if found guilty face a jail term and/or a personal fine and are banned from becoming a member of a bank's top management or board again. It clearly is a moral hazard issue if the top management can manage a bank in a reckless manner without any consequences, the way we have witnessed in the recent global crisis.

3. On the issue of systemically important financial institutions, the methodology of identifying globally systemically important banks (G-SIBs) have been agreed upon.⁴ The requirement is for G-SIBs to have additional loss absorption capacity with additional capital, and to meet higher expectations of supervisors in data aggregation capabilities. A preliminary group of 29 G-SIBs has been identified. Works are ongoing to extend the identification to other financial institutions and to cover or explore in further detail a new international standard as a reference for a national resolution regime, resolution powers and tools, recovery, resolution plan, creditor hierarchy, and institution-specific cross-border cooperation agreements.⁵

By definition, G-SIBs are large and complex with a global network, hence all works on the above cross-border issues—in particular, institution-specific resolution plans—will be valuable in assisting G-SIBs' home and host supervisors alike to work out an orderly resolution of a G-SIB. However, precisely because of G-SIBs' complex nature with operations spanning many jurisdictions with different national resolution laws (which are usually part of a broader legal regime), the new international standard as a reference for national resolution may not be easily adopted, and different national interests may prevent such adoption. In this case, one may have no other choice but to work out a resolution plan based on different national resolution regimes, which can be inconsistent across jurisdictions. In addition, in cases where some provisions of the resolution laws have not been contested in court, one may have to wait for a court case to set the precedence of a court ruling. In reality, therefore, a resolution plan can be full of inconsistencies and shrouded with uncertainty. This can lead to excessive risk taking by investors and bank management if they perceive that the resolution plan is not credible and that the authorities will not allow the bank to fail because of its systemic implication as a G-SIB. This is clearly a potential case of moral hazard.

4. The leverage ratio, a non-risk-based ratio which includes off-balance-sheet exposures, has been proposed and in fact implemented to cap the leverage of both an individual financial institution and the leverage build-up of the entire finance sector, to help contain systemic risks. Although this ratio will be able to contain leverage as intended, there are two problems that I see with it. First, we have moved to a risk-based approach since Basel II because it is only logical for riskier services or products to be subject to higher charges. I find it difficult to understand the reason for resorting to a non-risk-based ratio, even though it is used as a backstop to supplement the risk-based capital requirement. This may look like a minor technical

⁴ Basel Committee on Banking Supervision. 2011. Global Systemically Important Banks: Assessment Methodology and the Additional Loss Absorbency Requirement. 4 November. <http://www.bis.org/publ/bcbs207.pdf>

⁵ Financial Stability Board. 2011. Key Attributes of Effective Resolution Regimes for Financial institutions. October. http://www.financialstabilityboard.org/publications/r_111104cc.pdf

detail, but in fact it leads to the second problem, which can be serious. Because of the ratio's non-risk-based nature, all off-balance-sheet items are treated equally on balance sheets. However, when converting off-balance-sheet items into on-balance-sheet items, a conversion factor is used and, hence, following the Basel 1 tradition that the exposure of a derivative is only its notional amount, it has a smaller conversion factor than a traditional financial product with relatively low risk such as trade finance. The consequence is that it is more costly for banks to carry trade finance off their balance sheets than a derivative product, although it's clear that derivative products have a higher risk. Therefore, the leverage ratio may unintentionally penalize AEMs whose banks usually carry more trade finance (as a result of high exports and imports in their economies) in their balance sheets than derivative products. Even more worrisome is the fact that banks may try to limit their charges under this ratio by promoting some derivative products to replace traditional trade finance, resulting in higher risks for the individual banks and banking sectors.

5. Countercyclical capital buffers, global liquidity standards, and supervisory monitoring of liquidity are good initiatives of Basel III to contain systemic risk for financial stability. A recent report jointly released by the Financial Stability Board (FSB), IMF, and the Bank for International Settlements (BIS) traces the progress in implementing macroprudential policy and highlights the scope for further progress, such as in the areas of systemic risk identification and policy calibration for optimal policy design.⁶ The technical expertise on these issues is still evolving and a comprehensive theoretical and analytical framework has yet to be worked out. Hence, works to better understand and utilize macroprudential policy for financial stability purposes are ongoing. International work is also under way to strengthen financial market infrastructure and improve market practices. A consultative report on harmonized principles for financial market infrastructures—covering payment systems, central securities depositories, securities settlements systems, and central counterparties, including guidance on trade depositories—has also been issued. The adequacy of the Basel III proposal for macroprudential measures, therefore, remains to be assessed.

Here, however, I'd like to offer a comment on the use of countercyclical capital buffers. In my view, it is better for it to come under Pillar 2 to allow the authorities room for discretion in imposing this requirement rather than having to adopt it strictly according to the rule once a threshold—say, the ratio of credit growth to gross domestic product (GDP) growth—has been reached. We need to humbly admit that our current understanding of the linkages of the real economy and the finance sector is rather incomplete. Our technical capability in modeling to try to calibrate lead-lag in policy transmission, the turning point of business cycles, etc., is even more limited. In addition, depending on policy combination or regulatory contexts, the analysis for the need for capital buffers can be different. For example, a rapid increase of credit expansion may not be as grave a concern, and supervisory action may not be needed yet if conservative macroprudential measures, such as loan-value ratio or other prudential limits, are in place. Alternatively, if the fiscal policy is expansionary and the monetary policy fails to rein in rapid credit expansion, a capital buffer may be needed even before the credit growth reaches the set threshold.

In conclusion, Basel III represents a much-improved regulatory framework for stronger financial institutions, taking into account additional sources of risks that were not apparent when Basel II was introduced. It is also expected to reduce systemic risks through various regulations. Unfortunately, in my view, Basel III will not be sufficient to prevent the next financial crisis unless

⁶Financial Stability Board, IMF, and Bank for International Settlements. 2011. Macroprudential Policy Tools and Frameworks. Joint progress report to G20. 27 October. <http://www.imf.org/external/np/g20/pdf/102711.pdf>

more effort and attention are geared towards risk-based supervision and management, and its enforcement.

4. IMPLICATIONS AND CHALLENGES OF BASEL III FOR ASIAN EMERGING MARKETS

The extensive regulatory changes expected from Basel III will no doubt have significant implications and present challenges for all economies. I will outline some of them from the perspective of AEMs as follows:

1. With the additional capital requirements, both for each institution and for the mitigation of systemic risk, the cost of complying with Basel III's new capital requirements, not to mention other regulatory costs, can be substantial. Currently, the banking sectors of most AEMs remain robust with strong capital bases, mostly exceeding the minimum Basel requirement. Strong economic conditions in AEMs also contribute to the buildup of capital in their financial institutions. Therefore the regulatory costs of Basel III should not be too overwhelming for most AEMs. However, depending on the exact timing of AEM implementation of Basel III and the stock market condition (which can be quite volatile), raising sufficient funding from the market may be a challenge for some AEMs.

More importantly, work to extend the new regulatory reform measures to other financial institutions is still under way and this will eventually impose additional regulatory costs on the entire finance sector. The aggregate direct regulatory costs on AEMs may be manageable since most AEMs are bank-based economies, with the banking system taking the biggest market share in the finance sector; the additional burden for the rest of the finance sector may be small. However, what could be a concern is that the aggregate regulatory costs on all finance sectors of some advanced economies could be substantial, forcing financial institutions to reduce their assets or exposure both domestically and globally, which may have negative consequences for their economies and for AEMs through financial and trade integration. In fact, this is a concern for all economies, not just AEMs, and continued assessment and monitoring of total regulatory costs and their impact on the economy is necessary. Adjusting implementation timetables of different standard setters and supervisors can be an option, if necessary.

2. Many G-SIBs have their presence in AEMs. The BCBS's principle on home-host supervisory coordination and colleges has contributed to better information sharing and coordination. However, the problem of significant host still remains, namely, the host supervisor of a foreign bank with a significant presence in the host country may not be invited to be part of a supervisory college for information exchange and supervisory coordination if, from the eye of the home supervisor, the presence is deemed small in the global operations of the systemically important bank, and hence may not have access to adequate information. The Basel III regulations on G-SIBs are welcome initiatives in mitigating their systemic risk and are expected to contribute positively to the stability of the host country's finance sector. However, in the short run, depending on the domestic market share of G-SIBs and market competition, the regulatory cost on systemically important banks (SIBs) could be passed on to host country consumers.

From a host country's perspective, requiring foreign bank operations to be set up as locally incorporated subsidiaries instead of branches is a better business model that provides a level playing field for all financial institutions since the foreign subsidiary will need to have a capital base separate from the head office to support its operations. Supervising a subsidiary is obviously more effective, with more information readily available. As discussed earlier, due to the complexity of and uncertainty involved with the resolution plan of a G-SIB (which may create moral hazard and lead to excessive risk taking by investors and bank management), it may be

in the interest of the home supervisor to make the G-SIB smaller. From this perspective, requiring a foreign bank branch to operate as a subsidiary is also in line with the interest of the home country supervisor.

In addition, many AEMs have their own mega banks. Out of Asia's biggest 500 banks, 103 are in the People's Republic of China, 43 are in India, and 27 are in Indonesia,⁷ just to give a few examples. Therefore, the issues of systemically important banks and "too big to fail" are highly relevant to emerging markets as well. Since these banks have more extensive domestic than global networks, it will be useful to apply the G-SIB recommendations of the BCBS to these domestic SIBs, especially with regards to additional capital and data requirements, as well as having orderly resolution plans. A separation of investment banking from commercial banking also mitigates risks of the banking sector. Indeed, this recommendation also applies to advanced economies.

3. Mitigation of systemic risk through macroprudential measures is a major challenge for AEMs, starting with the issue of identification. Systemic risk is the risk of widespread disruptions to the provision of financial services that have serious negative consequences for the economy as a whole. Since it is system-wide risk, we need to identify, analyze, and monitor a variety of metrics, such as the buildup of financial imbalances in both the real and finance sectors, market liquidity, and risk appetite. Each provides a different perspective of the risk. These indicators, in particular for financial imbalances, are difficult to measure and monitor, and it is not easy to identify the driving forces behind the forming imbalances. Financial indicators, indices, or even some early warning data are mostly about individual risk or individual institution risk and they may not be able to flag financial instability issues which are of a systemic nature and have multiple dimensions. Some of the indicators may even give conflicting signals. There are also problems about what tools to use and what the quantitative impacts of the selected tool are. There is no doubt that significant technical challenges remain, and building up our knowledge base and technical expertise is necessary to better understand the complexity of, and ways to mitigate, systemic risk.

Moreover, the skill set and competency for early detection of systemic risk usually reside in many departments in a central bank, such as examination and supervision, economic research, and economic policy. It is important to leverage staff from these departments with different backgrounds and training by having regular meetings for them to assess the risk of potential financial instability building up. Such regular dialogues are useful in broadening one's perspective to beyond one's disciplines and helping to identify conditions that together may expose areas of vulnerability. Most importantly, they help foster a common culture which focuses on systemic risk; not just sharing of information but sharing of view. Most of the time it is difficult to integrate the information or data into a formal model for vigorous analysis of imbalances, but the dialogues and views can form an important basis for policy judgment.

4. Institutional constraints can be another major challenge in mitigating systemic risk if the responsibilities of micro- and macroprudential supervision do not reside in the same agency and coordination between responsible agencies is not well established. It is important to put in place a supportive structure for maintaining a sound finance sector and financial stability—including clear mandates for micro- and macroprudential supervisors as well as an effective and efficient coordination mechanism for close consultation, coordination, and sharing of information, both at the top and staff levels—so that the interests of all agencies are well aligned and necessary prudential measures can be implemented.

⁷ *The Asian Banker*. 2010. Special edition. Issue 101. October.

5. The amount of data needed for the implementation of Basel III is substantial and significant gaps remain for AEMs, especially data for identification and monitoring of systemic risks. According to an IMF survey,⁸ the total number of indicators cited by respondents for systemic risk monitoring is 60, and these include indicators of bank capital (e.g., the capital adequacy ratio) and performance (e.g., return on assets), and indicators of liquidity (e.g., liquid assets to total assets) and indebtedness (e.g., household debt to GDP). The indicators cover both the domestic (e.g., inflation) and international (e.g., net private capital inflows) aspects of the financial system, and include macro (e.g., credit growth to GDP growth), micro (e.g., bankruptcy proceedings initiated), and sector (e.g., real estate price index) variables. The existing data of individual banks may also need to be reclassified or disaggregated into different buckets as required for the computation of related requirements.

5. CONCLUSION: POLICY RECOMMENDATIONS FOR ASIAN EMERGING MARKETS FOR THE ENHANCEMENT OF FINANCIAL SYSTEMS AND STABILITY

Thailand and a few more AEMs have painful first-hand experience of the 1997 Asian crisis and the importance of maintaining both micro and macro stability, and have since revamped their supervisory and other relevant policy frameworks. In this section I will offer my policy recommendations and insight for AEMs to obtain both of these policy objectives from a broader perspective, including other policy measures that supplement Basel III.

Supervision must change from compliance to risk-based and banks must focus on risk management. This point has been discussed earlier so here I will limit my discussion to capacity building needed to support the change. Since the two approaches of supervision require very different technical capabilities and mindsets, continued efforts and persistence in capacity building are needed both for supervisors and banks. On the part of supervisors, the BOT set up a new commissioning process, requiring examiners to take qualifying exams before being commissioned as examiners-in-charge. To take the qualifying exam, one must get extensive training of 3–5 years, depending on prior experience, both in the classroom and on the job, according to the curriculum of the newly set-up Examiners' School. To help foster understanding of risk and risk management on the part of banks, a limited number of seats in the Examiners' School are also open to bank staff. The BOT's new risk-based examination manuals are made available on its website so that banks understand what risk-based supervision means and how they can improve their risk management to meet the BOT's requirements and expectations.⁹ The BOT's continued dialogue with bank management is also very useful in building mutual trust for consultations and in fostering greater understanding of risk and risk management.

There may also be desirable changes of roles when supervision is risk based. For example, banks must be the owners of their own risks. They must have their own systems to identify, measure, monitor, and control their own risks (and not rely on supervisors or external auditors), supported by appropriate governance structures and board oversight. The examination of domestic bank branches is no longer the role of the supervisor but has shifted to banks as part of their internal control system, which the supervisor ensures is in place.

⁸ IMF. 2011. Macroprudential Policy: An Organizing Framework Background Paper. 14 March.

⁹ I should add that under compliance-based supervision, examination manuals were not disclosed to prevent banks from concealing noncompliance in the areas of focus of examiners, an approach adopted by most compliance-based supervisors.

There must be regular monitoring of the threat of financial imbalances, as they can lead to financial instability if left unchecked. The BOT regularly monitors seven areas that are vulnerable to the buildup of financial imbalances, i.e., the housing and property market; capital market; and the extent of indebtedness of the external, banking, government, household, and corporate sectors. This is by no means exhaustive, as it is evidenced from the IMF survey that a wide array of indicators is monitored by different countries. More recently, stress testing has been actively used to gauge the potential vulnerability of the banking sector.

Macroprudential measures must be used in pre-empting the buildup of systemic risk. These can be powerful tools and have been widely used in emerging markets. The most commonly employed macroprudential tools are loan–value ratio, limit on net open currency positions, debt–income ratio, and ceilings on credit or credit growth to address threats from excessive credit expansion in the system, limits on maturity mismatches, caps on foreign currency lending, and levies on noncore funding to address key amplification mechanisms of systemic risk.

The BOT has utilized macroprudential tools with success on a number of occasions. In 2003, when there were early signs of heating in the high-end property market, the loan–value ratio for that particular market segment was introduced and banks were asked to report their financing of big property development projects with loans exceeding B100 million per project. Even such a simple reporting requirement was enough to send a message to the banks and developers alike about the central bank’s increasing concerns, and the high-end property market gradually cooled down. Similarly, when credit card loans started to expand rapidly, minimum requirements on monthly income and monthly payments were introduced.

Another interesting measure introduced in 2006 was the requirement for banks to observe the IAS39 standard on impaired asset and their provisioning. This partial adoption of the standard was 2 years ahead of the Thai accounting body’s planned schedule. Banks were made to set aside more provisioning under the new standard instead of paying out handsome dividends from their profits, which had continued to increase in the preceding few years. This was a discretionary countercyclical measure to build up buffers in good times against future bad times, implemented well before Basel III makes capital buffers a requirement in Pillar 1.

AEMs must ensure that capital inflows do not lead to potential systemic risk. Managing these flows is posing a significant challenge. Even though there may be other policies—e.g., monetary policy, exchange rate policy, capital management and macroprudential policy—to deal with capital flows, they are not always effective and may pose conflicts at times. With the relatively robust economies in most AEMs and threats of inflation and imbalances in some AEMs, cutting interest rates to reduce the interest rate differential to discourage capital flows may not be an option. Exchange rates and capital management also have limitations. Intervention can lead to even more liquidity or have implications for the central bank’s balance sheet, depending on the extent of sterilization. If not properly guarded, inflows can also lead to financial excesses, and disruption can be even bigger when there is a reversal of the flows.

Even capital controls are not likely to work unless they are draconian ones, given the massive global liquidity as a consequence of ultra-accommodative monetary policies of crisis-hit economies and the significantly higher rates of return in AEMs due to their much stronger economies. The potential gain from the appreciating trend of AEM currencies also draws capitals to the region. The issue of capital flows is a global problem which no single country will be able to have a sustainable solution to. A global problem needs an international solution and coordination to solve and we are in dire need of such a solution and mechanism for coordination.

Deeper systematic studies on ways to deal with capital flows, including the appropriate sequencing of developing different financial markets to build resilience against excessive capital

flows and decision-making frameworks for capital controls when necessary, are being carried out.¹⁰ For a long-term solution, we may need to have a new international monetary system since the current one, which has only one predominant global currency, runs the risk of having excess global liquidity supplied by the issuer of global currency.¹¹ In the meantime, it is important that AEMs take steps, including macroprudential measures, to further strengthen their resilience and ensure that imbalances do not develop as a consequence of the inflows.

Outside interference and threats to central bank independence from having financial stability as a mandate can be an issue. Unlike monetary policy, which affects the entire economy with its rate cuts or hikes, financial stability tools usually affect only certain economic sectors where financial imbalances are judged to be building up. Hence, central banks could face immense lobbying and resistance against such measures. Broader acceptable policy mandates and power, therefore, requires a strong policy framework and matching governance structure to shield the central bank from interference and support its independence. It is important that central banks, which are usually the macroprudential supervisors, are legally guaranteed their independence. In the case of the BOT, monetary stability and financial stability—both micro and macro—are entrusted by law to two different committees with clear mandates. The committees have more external than internal members for the purposes of checks and balances but are chaired by the governor. The independence of the committees and the governor is guaranteed by law, making external interference difficult. So far the governance structure has worked well.¹²

Two questions arise here. First, why then should a central bank take up the dual mandates of maintaining both price and financial stability, given the potential threat to its independence? Second, would the dual mandates pose a conflict for a central bank and further threaten its credibility and independence?

There are a few reasons why a central bank should take up the mandate of financial stability as well. First, price and financial stability are closely related. The lack of stability eventually leads to booms and busts, which have significant implications on price stability and may, in turn, lead to loss of central bank credibility in maintaining price stability. In fact, even if financial stability is not an explicit mandate of a central bank, it would still want to ensure that, over time, financial stability is achieved to support sustainable price stability. Secondly, a central bank is likely to be the lender of last resort should a systemic situation arise, regardless of whether financial stability is its mandate or not. Obviously, taking the financial stability mandate into the central bank's own hands while, at the same time, putting in place other mechanisms to safeguard its independence would likely be a better alternative for maintaining monetary policy credibility over time and for closer surveillance so as to mitigate the risk of financial instability. Thirdly, in maintaining price stability, a central bank monitors a wide array of macroeconomic indicators such as market liquidity, credit growth, and external and fiscal balances which have important bearings on economic growth and inflation. Many of these indicators are also important data for assessing financial stability. Hence, there is a synergy in adopting both mandates. In addition, many central banks in AEMs are also micro supervisors and hence are able to leverage all micro- and macroprudential data for financial stability purposes.

As for the potential trade-off or conflict of the two mandates, the traditional view is that, in general, price stability tends to promote financial stability. Low and stable inflation does not lead

¹⁰ See World Economic Forum. 2010. The Financial Development Report 2010.

¹¹ See a discussion on this point in T. Watanagase. 2010. The International Monetary System, a speech given at the EMEAP–Eurosystem High Level Seminar in Australia on 10 February 2010. <http://www.bot.or.th>

¹² For more details, see T. Watanagase. 2011. Pursuing Monetary and Financial Stability: Bank of Thailand's Perspectives, speech given at the 9th SEACEN–BIS Executive Seminar in Phnom Penh on 19 January. <http://tarisa-watanagase.blogspot.com>

to distorted relative prices and therefore prevents resource misallocation, whereas high inflation, usually related to higher price volatilities, adds to the problem of predicting the rate of returns on different investments and resource misallocation. High inflation is usually a result of excess supply of liquidity and credit, which eventually lead to excessive real and financial investments, and financial imbalances. So it is comforting for central banks that, in general, there is no conflict between the two mandates. However, experience has shown that financial imbalances can develop even with low and stable inflation, as in the case of the US leading up to the 2008 crisis and in Japan in the 1990s. So, price stability is not a sufficient condition for financial stability. Conflicts seem to arise in a period of significant and unprecedented disinflation and may also be associated with a number of factors, such as low pricing power of firms, positive supply-side developments, and well-anchored low inflation expectations. Very often there may be simultaneous financial deregulation which adds opportunities as well as new risks to investment decisions. But even in this case, if a central bank sets its goal of price stability with a longer time horizon, the conflicts would disappear. With a medium term view, a central bank may allow the short-term inflation to be lower than the short-term optimal rate, by, say, tightening its monetary policy, in order to have medium-term price stability.¹³

However, in reality, it may not be desirable or practical to use monetary policy when inflation is low and stable to deal with financial imbalances since the perceived policy inconsistency, tightening when inflation is low and stable, may affect the central bank's policy credibility. In addition, substantial tightening may be needed for the measure to have any meaningful impact on asset prices when bubbles are already building up, a measure which can be very disruptive to the general economy. This is where macroprudential tools can be more effective, as discussed earlier.

Macroprudential measures must not be used to substitute for the necessary adjustment of monetary policy to achieve financial stability. In the years before the global crisis, there were debates on tightening with countercyclical measures to burst the bubble or cleaning up the mess after the bubble bursts. It is now clear that cleaning up the mess is extremely difficult with only limited policy options which may not be effective, and the huge cost and pain can last for a long time. Monetary policy that keeps the interest rate low for too long leads to abundant liquidity, provides incentives for high leverage, and sows the seed of instability. If financial imbalance is building up because of such an accommodative monetary policy, changing the course of the monetary policy is the right approach.

Supportive market infrastructure contributes significantly to financial stability. Apart from the improvement of market infrastructure, such as a clearing and settlement mechanism, further developing and enhancing a domestic bond market is very useful for AEMs. Most AEMs lack a fully developed and well-diversified finance sector that offers an entire spectrum of financial assets with different risks and returns. With the exception of Malaysia, almost all AEMs have a small corporate bond market. Funding and investment are concentrated in the banking sector and the stock market (which may not be sufficiently regulated), making it prone to financial imbalances. A deeper bond market provides an important additional market for funding and investment and better risk diversification. The small Thai private bond market could not become an alternative source of funding for the corporate sector after the Asian financial crisis when the banking sector became very conservative in its credit underwriting, partly learning from their

¹³ See an insightful discussion on central banks' dual mandates and their potential conflicts in O. Issing. 2003. Monetary and financial stability—is there a trade-off? Speech given at the Conference on Monetary Stability, Financial Stability and the Business Cycle at the Bank for International Settlements . March.

mistake and partly to conserve capital. This led to a tightening of credit, which contributed to the huge contraction of GDP.

Obviously, regulation and supervision must keep pace with the development of the bond market as well as other financial markets for them to contribute to financial stability. Having said that, I must quickly add that with the current massive global liquidity, whether a well-developed and well-regulated bond market contributes positively to financial stability becomes a more complicated analysis. On the one hand, capital inflows are likely to increase if the bond market is an additional channel for investment, and the reversal may be higher and more disruptive should there be a change in the risk appetite of investors. On the other hand, responses to monetary policy measures should be more stabilizing since the impacts on the stock and the bond markets are usually in the opposite direction. Hence, funds may shift between different markets in the economy, reducing disruptive inflows and outflows.

What is most important in maintaining financial stability is the will to tighten the economy pre-emptively with monetary policy and/or macroprudential policy, which are unpopular measures.¹⁴ Without such a will, any simple excuses can lead to delayed actions or non-actions. Clear legal mandates, supportive governance structures, and market infrastructure (as discussed above) make it somewhat easier for authorities to make tough decisions. In addition, communication has an important role. During normal times, the macroprudential supervisor and/or the central bank need to have frequent communication and dialogue with politicians, bankers, and the general public to build the acceptance that the boom-and-bust cycle is detrimental to economic well-being and it would be in the best interest of all for the authorities to take unpopular measures when needed. It may sound highly idealistic and naïve to hope for such acceptance, but with the memories of the global crisis still vivid, now is the best time for such a strategy. The fact that most Asian economies have been able to safeguard financial stability with unpopular macroprudential measures may well suggest that they were able to get the support from the masses, who still remember the pain of the 1997 crisis. This is the case with Thailand, where there have been campaigns for prudent risk management of households and the business sector, both banks and other corporations, risk awareness is much higher today, so is the general acceptance that macro-economic policy should aim for growth which is sustainable in the long run even though it may mean somewhat lower growth in the short run.

¹⁴Willaims McChesney Martin, the ninth and longest-serving Chairman of the United States Federal Reserve Bank, serving from 2 April 1951 to 31 January 1970, famously said that the job of the Federal Reserve is to take away the punch bowl just as the party gets going—that is, raise interest rates just when the economy reaches peak activity after a recession.

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