Financial Innovation in East Asia

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Abstract

Finance is important for development. However, the Asian financial crisis of 1997–1998 and the global financial crisis of 2008 highlighted the serious risks associated with financial liberalization and excessive innovation. East Asia's strong focus on economic growth has necessitated a careful balancing of the benefits of financial liberalization and innovation against the very real risks inherent in financial sector development. This Article examines the role of regulatory, legal, and institutional infrastructure in supporting both financial development and limiting the risk of financial crises. The Article then addresses a series of issues with particular developmental significance in the region: trade finance, mortgage markets, SME finance, non-bank finance, and mobile financial services.

I. INTRODUCTION

Financial innovation has been defined as both the "technological advances [that] facilitate access to information, trading[,] and means of payment . . . and to the emergence of new financial instruments and services, new forms of [organization,] and more developed and complete financial markets."[1] While financial innovation has traditionally been

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1. Eugenio Domingo Solans, Member of the Governing Council and of the Exec. Bd. of Eur. Cent. Bank, Speech at the 38th SEACEN Governors Conference and 22nd Meeting of the SEACEN Board of Governors (Feb. 13, 2003), *available at* http://www.ecb.europa.eu/press/key/date/2003/html/sp030213.en.html; *see also* Stephen A. Lumpkin, *Regulatory Issues Related to Financial*

associated with economic growth and development, the financial crises of the past decade have revealed the significant risks posed by innovations in the absence of adequate regulation. It is now clear that financial regulation must balance risk with innovation in order to maintain financial stability and support economic growth. This pragmatic approach to financial regulation was adopted in East Asia following the Asian financial crisis and is arguably one of the greatest financial innovations of the past decade. It is essential that such an approach be maintained in East Asia, and the West should be encouraged to look to and learn from the successes in East Asia as it attempts to recover from the global and European financial crises.

In the two decades prior to 2007, financial innovation was viewed in most countries as a desirable objective worthy of policy support. Institutional development was particularly encouraged—specifically law reform, deregulation, and financial liberalization. During this period, finance in Asia was generally viewed as suffering from a lack of financial innovation, with repressed markets and underdeveloped institutional infrastructure, particularly in the realm of law and regulation.

Since 2007 and the onset of the global and "Eurozone" financial crises, the general view of financial innovation has become much more nuanced. Financial innovation is no longer seen as universally desirable, particularly as many innovations of the preceding decades played a central role in the global financial crisis. Financial systems that had previously been characterized as suffering from excessive regulation and insufficient innovation, such as those of Canada and Australia, performed far better during the crisis than the highly innovative financial systems in the United Kingdom and United States. Likewise, while the financial systems of East Asia had been viewed as insufficiently innovative, they suffered relatively minor financial crises in comparison to the United States and Western Europe. As a result, views of financial innovation have changed significantly in a short period of time.

This Article considers the role of financial innovation in the past, present, and future development of East Asia. It begins with the question of whether, in fact, East Asia can be characterized historically as suffering from a lack of financial innovation. While East Asia has certainly been the source of many significant financial innovations historically, it is most commonly seen as having generally lacked innovation in the pe-

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Innovation, 2009 OECD J.: FIN. MARKET TRENDS 91; WORLD ECON. FORUM, RETHINKING FINANCIAL INNOVATION: REDUCING NEGATIVE OUTCOMES WHILE RETAINING THE BENEFITS (2012) (Switz.), *available at* http://www3.weforum.org/docs/WEF_FS_RethinkingFinancialInnovation_Report_2012.pdf; *Definition of Financial Innovation*, FIN. TIMES LEXICON, http://lexicon.ft.com/Term?term=financial-innovation (last visited Sept. 30, 2013).

riod since the World War II. We argue that this characterization is not entirely accurate and that, in fact, East Asia has continued to innovate in finance during this period. At the same time, perhaps one of its most important innovations has been an approach to finance that is both cautious and focused primarily on supporting real economic activity, particularly in the wake of the Asian financial crisis of 1997–1998. This pragmatic approach to financial innovation is largely responsible for the region's resilience during the global financial crisis.

From this background, we consider financial innovation in East Asia's future development. Given that finance in the individual economies of the region tends to be dominated by large domestic banks that often focus their lending on large firms, there is a clear need for alternative sources of funding. This is the area where financial innovation matters most for East Asia going forward. Specifically, we identify five areas where East Asia needs to focus on supporting innovation in order to maintain financial stability and also support economic growth and development: trade finance, mortgage markets, SME finance, non-bank finance, and mobile financial services. In each of these areas, innovation based on local circumstances and needs is vital to support financial stability and growth across the region.

II. FINANCIAL INNOVATION IN EAST ASIA'S DEVELOPMENT

Financial market professionals and various scholars have frequently characterized finance in East Asia as being insufficiently innovative.[2] Under this characterization, East Asia has been a "taker" of financial innovations from the West, usually receiving new financial strategies and techniques third-hand after their development in the United States and successful spread to Western Europe. Only at that point did Western financial institutions and professionals export successful techniques to East Asia in search of new opportunities for profit. That characterization, however, is historically inaccurate.

A. Financial Innovation in Asia's Early Development

The Asian economies, particularly prior to the industrial revolution in Western Europe, were the source of some of the most significant historical financial innovations: Marine insurance and ship finance came from the Phoenicians, as did, arguably, early forms of venture capital and corporations; agricultural futures and paper currency were derived from China; group lending and insurance pools were common across the re-

2. For detailed discussion and analysis, see QIAO LIU ET AL., FINANCE IN ASIA: INSTITUTIONS, REGULATION AND POLICY ch. 7 (2013).

gion and likely originated from China;[3] and bills of exchange, hawala, and covered bonds from the Islamic world and the Ottoman Empire further exemplify financial innovation originating from Asia.[4] As such, it is clearly incorrect to suggest that Asia, including East Asia, has always suffered from a lack of financial innovation and has always been a taker of financial innovations from Western markets. In fact, many of these early innovations, which originated in Asia, were central to the institutional framework that supported and funded the industrial revolution in Western Europe.[5]

Even in the second half of the twentieth century, Asia has been the source of a number of significant financial innovations. Three examples warrant particular attention: the developmental state, microfinance, and Islamic finance—all of which are important Asian financial innovations.

The model of the developmental state, pioneered by Japan and exported across the region, comprises the repression of finance to mobilize financial resources to support export industries and thus to support economic growth and development.[6] There are very significant limitations to the model, particularly as economies reach higher levels of development and fuller integration with the global economy and financial system. These limitations have been highlighted dramatically by Japan's two-decade financial malaise and the Asian financial crisis that commenced in 1997. Nevertheless, the model has been vital to the region's successful development. Likewise, the centrality of finance to the model is clearly an innovation, a very successful and influential one, albeit one with important limitations.

Microfinance emerged from Bangladesh as an Asian innovation and has spread around the world.[7] It is one of the most influential developments in finance in the past thirty years. The focus microfinance puts on lending small amounts to the poor to support economic activity and its use of a range of social techniques, such as group lending, to ensure repayment is an innovation clearly related to the actual conditions and needs in the region. Likewise, the region—particularly Malaysia and Pakistan—has contributed greatly to innovations involving Islamic fi-

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3. *The History of Insurance*, QUADRIS INS. BROKERS, http://www.quadrisinsurance.co.uk/insurance_history.html (last visited Sept. 30, 2013).

4. Matthias Schramm & Markus Taube, *Evolution and Institutional Foundation of the Hawala Financial System*, 12 INT'L REV. FIN. ANALYSIS 405 (2003).

5. *See generally* PRASANNAN PARTHASARATHI, WHY EUROPE GREW RICH AND ASIA DID NOT: GLOBAL ECONOMIC DIVERGENCE 1600–1850 (2011).

6. LIU ET AL., *supra* note 2, at ch. 1–2.

7. BEATRIZ ARMENDÁRIZ DE AGHION & JONATHAN MORDUCH, THE ECONOMICS OF MICROFINANCE (2005); Kevin Davis, *Financing Development: Microfinance–Background*, N.Y. UNIV. SCH. L., INST. INT'L L. & JUST., http://www.iilj.org/courses/FDMicrofinanceBackground.asp (last visited Sept. 30, 2013).

nance,[8] which have been exported across Asia and also to Western markets.[9]

In addition, other areas of Asia–Pacific financial innovation include pensions, where Australia and Singapore are world leaders;[10] stored value cards or e-money, where innovations in Hong Kong have spread around the world;[11] and Internet and mobile banking, and financial services, where developed regions in East Asia lead the world.[12]

While Asia has not generated as much innovation in the past seventy years as North America and Western Europe, the region has nonetheless produced globally significant financial innovations that have contributed to real economic growth and development. It is thus clearly incorrect to characterize finance in Asia as lacking in innovation.

B. The Limits of Financial Innovation

In an era of globalization and highly interdependent markets, finance matters. From the most advanced leading economies to emerging and developing nations, finance is viewed as a vehicle for development and economic stability. Supported by a growing body of literature, a consensus exists that a well functioning financial sector is a primary driver of growth.

At the same time, finance, as emphatically demonstrated by the Asian, global, and Eurozone financial crises, is not without its risks. These crises have raised important questions about the limits of financial innovation for economic growth and development. Economic researchers Jeanneney and Kpodar argue that "financial development helps reduce poverty indirectly by stimulating growth[,] and directly by facilitating transactions and allowing the poor to benefit from financial services (primarily savings products) that increase their income . . . and enhance

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8. Islamic finance is a financial system that operates according to Sharia Law. While Islamic law allows for a free-market economy, Islamic finance prohibits certain activities such as gambling, charging interest, investing in prohibited industries, and dealing in uncertainty-based transactions.

9. NAT'L BUREAU OF ASIAN RESEARCH, ISLAMIC FINANCE IN SOUTHEAST ASIA: LOCAL PRACTICE, GLOBAL IMPACT (2008), *available at* http://www.nbr.org/publications/specialreport/pdf/Preview/PR08_IF_preview.pdf; Mercy A. Kuo, *Islamic Finance in Southeast Asia: Strategic Context and Trends*, 3 J. ISLAMIC ECON. BANKING & FIN. 5 (2009); Zeti Akhtar Aziz, Governor of the Cent. Bank of Malaysia, Speech at the Brunei Darussalem Islamic Investment Summit, Regulatory and Governance for Islamic Finance (June 19, 2013), *available at* http://www.bis.org/review/r130627b.pdf.

10. Yuwei Hu, *Growth of Asian Pension Assets: Implications for Financial and Capital Markets* 3 (Asian Dev. Bank Inst., Working Paper No. 360, 2012), *available at* http://www.adbi.org/files/2012.05.31.wp360.growth.asian.pension.assets.pdf.

11. Winnie Nip, *E-Money in Hong Kong*, ANALYST, Fall 2006, at 9, *available at* http://www.hcs.harvard.edu/analyst/content/issues/analystFall2006_EM2.pdf.

12. Alfred Romann, *Banking on the Digital Age*, CHINA DAILY (Aug. 2, 2013, 8:15 AM), http://www.chinadailyasia.com/business/2013-08/02/content_15081264.html.

their ability to undertake profitable . . . activities."[13] They conclude, however, that during some stages financial development may "demonstrably undermine[] poverty reduction because the poor are generally more vulnerable than the rich to unstable and malfunctioning financial institutions . . . ."[14] Thus, increases in financial development and activity and in moves to more open markets may, in some countries, increase the disparity between the rich and the poor and positively harm the poor.[15]

While finance is important in the process of industrialization, an unbridled financial sector does not necessarily lead to continuing economic growth and prosperity. In Paul Volcker's words, "I wish that somebody would give me some shred of neutral evidence about the relationship between financial innovation recently and the growth of the economy, just one shred of information."[16] While in our view this position is too extreme, at the same time, post-crisis research does indicate that in finance more is not necessarily better. In an important recent study, Cecchetti and Kharroubi examined the impact of finance on growth and development at the aggregate level and found that mature, sophisticated economies get to a point where greater volumes and sophistication in banking, credit, and other financial tools become associated with lower economic growth.[17] Cecchetti and Kharroubi found that because the finance sector competes with other sectors for scarce resources, rapid growth of finance can have an adverse impact on aggregate real growth.[18] Essentially, rapid growth of a financial sector can serve as a drag on an economy and shift resource allocation and distribution in suboptimal ways.[19]

Finance in the most advanced nations today utilizes increasingly sophisticated and complex financial products, which are not always transparent and are often difficult to source and assess. Meanwhile, de-

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13. Sylviane Gullaumont Jeanneney & Kangni Kpodar, *Financial Development and Poverty Reduction: Can There Be a Benefit Without a Cost?* 3 (Int'l Monetary Fund, Working Paper No. 08/62, 2008), *available at* http://www.imf.org/external/pubs/ft/wp/2008/wp0862.pdf.

14. *Id.*

15. ROSS P. BUCKLEY & DOUGLAS W. ARNER, FROM CRISIS TO CRISIS: THE GLOBAL FINANCIAL SYSTEM AND REGULATORY FAILURE (2011); *see also* Philip Arestis & Asena Caner, *Financial Liberalization and Poverty: Channels of Influence* (The Levy Econ. Inst., Working Paper No. 411, 2004), *available at* http://www.levyinstitute.org/pubs/wp411.pdf

16. Paul Volcker, *Think More Boldly*, WALL ST. J. (Dec. 14, 2009), http://online.wsj.com/article/SB10001424052748704825504574586330960597134.html. In the same piece, Volcker wrote the words one so often hears quoted: "[T]he most important financial innovation that I have seen the past 20 years is the automatic teller machine." *Id.*

17. Stephen G. Cecchetti & Enisse Kharroubi, *Reassessing the Impact of Finance on Growth* (Bank for Int'l Settlements, Working Paper No. 381, 2012), *available at* http://www.bis.org/publ/work381.pdf.

18. *Id.* at 1.

19. *Id.* at 13.

veloping states continue their integration into the global markets while being challenged by capacity and governance issues. This is the context for our examination of the benefits of increased financial activity and its likely impact on long-term economic development. This also highlights East Asia's most important financial innovation since the Asian financial crisis: a pragmatic and cautious approach to financial innovation and development, focusing not on encouraging innovation for innovation's sake but, rather, seeking to support the needs of the real economy through financial stability and economic growth.

III. FINANCIAL INNOVATION IN EAST ASIA'S FUTURE

Today's financial innovations are largely a by-product of financial liberalization, which itself was a response to the financial repression of the 1970s and 1980s in many developing countries. Financial repression included state ownership of financial institutions, government control and distortion of interest rate pricing, and capital controls to restrict asset transfers.[20] Such measures came to be seen as questionable given their poor financial and economic results, inefficient allocation of resources, and high costs—especially associated with the proliferation of non-performing loans (NPLs). Globalization thus supported the move to financial liberalization.[21]

Liberalization involves the broad deregulation of financial markets.[22] This process is typically accompanied by easier and faster capital flows, decreased regulatory scrutiny, and an increase in the types of financial instruments used or traded. Liberalization tends to lead to increasingly creative and innovative financial products that feed investors' demands for higher yields.[23] In the wake of the increasing frequency of cross-border financial crises over the past four decades, questions have emerged concerning the relationships between liberalization, economic development, and risk. In moving away from financial repression, liber-

20. For a detailed analysis of the term "financial repression" and its impact on growth, see EDWARD S. SHAW, FINANCIAL DEEPENING IN ECONOMIC DEVELOPMENT (1973). In contrast, Reinhart and Sbrancia argue that the aftermath of the global financial crisis created optimal conditions where financial repression would be effective in reducing debt. *See* Carmen M. Reinhart & M. Belen Sbrancia, *The Liquidation of Government Debt* (Nat'l Bureau of Econ. Research, Working Paper No. 16893, 2011), *available at* http://www.nber.org/papers/w16893.pdf?new_window=1.

21. THE WORLD BANK, ECONOMIC GROWTH IN THE 1990S: LEARNING FROM A DECADE OF REFORM 203–38 (2005).

22. Graciela Laura Kaminsky & Sergio L. Schmukler, *Short-Run Pain, Long-Run Gain: The Effects of Financial Liberalization* (Int'l Monetary Fund, Working Paper No. 03/34, 2003), *available at* http://www.imf.org/external/pubs/ft/wp/2003/wp0334.pdf.

23. FIN. CRISIS INQUIRY COMM'N, FINAL REPORT OF THE NATIONAL COMMISSION ON THE CAUSES OF THE FINANCIAL AND ECONOMIC CRISIS IN THE UNITED STATES (2011), *available at* http://fcic-static.law.stanford.edu/cdn_media/fcic-reports/fcic_final_report_full.pdf.

alization and the rise of privatization that is associated with it is often thought to be a significant driver of economic expansion and higher long-run growth.[24]

While many assert a positive correlation between financial liberalization and growth, the empirical literature is decidedly divided. Critics have found that external liberalization is more prone to producing instability in developing countries and generates financial fragility that can often have severe recessionary consequences.[25] Further, economic researchers Glick and Hutchinson found a tendency towards banking and currency crises following financial liberalization.[26] Thus, while financial liberalization promotes growth more than a repressed economy does, it also increases market uncertainty and the chances of severely damaging crises.

When a country uses financial liberalization to promote economic development, it must take measures to limit instability in markets and the risk of financial crises. In developing nations, premature liberalization before a strong prudential regulatory structure is in place can lead to destabilized markets and crises.[27] Without adequate regulation and supervision, as economic researchers Arestis and Caner have shown, financial institutions tend to take excessive risks.[28]

These are lessons that East Asia learned very directly in the Asian financial crisis a decade prior to the global and Eurozone financial crises. In East Asia, the Asian financial crisis triggered a rethinking of both the developmental state model and the then-prevailing model of financial liberalization. The result was a synthesis focusing on maintaining financial stability and supporting economic growth. Since the Asian financial

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24. *See* Geert Bekaert, Campbell R. Harvey & Christian Lundblad, *Does Financial Liberalization Spur Growth?*, 77 J. FIN. ECON. 3 (2001) (Bekaert, Harvey, and Lundblad, in their quantitative analysis, found liberalization of the equity market to have a statistically significant influence on per-capita GDP growth); *see also* Abdul Abiad & Ashoka Mody, *Financial Reform: What Shakes It? What Shapes It?* (Int'l Monetary Fund, Working Paper No. 03/70, 2003), *available at* http://www.imf.org/external/pubs/ft/wp/2003/wp0370.pdf (Abiad and Mody established a positive connection between financial liberalization and a state's openness to trade).

25. Charles Wyplosz, *How Risky Is Financial Liberalization in the Developing Countries* (Centre for Econ. Policy Research, Discussion Paper No. 2724, 2002); Romain Ranciere, Aaron Tornell & Frank Westermann, *Decomposing the Effects of Financial Liberalization: Crises vs. Growth,* 30 J. BANKING & FIN. 3331 (2006).

26. Reuven Glick & Michael M. Hutchison, *Banking Crisis and Currency Crisis: How Common Are the Twins?*, *in* FINANCIAL CRISES IN EMERGING MARKETS 35 (Reuven Glick et al. eds., 2001).

27. Philip Arestis & Murray Glickman, *Financial Crisis in Southeast Asia: Dispelling Illusion the Minskyan Way*, 26 CAMBRIDGE J. ECON. 237 (2002); Ross P. Buckley, *A Tale of Two Crises: The Search for the Enduring Lessons of International Financial Reform*, 6 UCLA J. INT'L L. & FOREIGN AFF. 1 (2001).

28. Arestis and Caner, *supra* note 15.

crisis, finance in the region has been treated pragmatically rather than relying excessively upon market-focused theoretical approaches.[29] Arguably, this pragmatic approach to finance largely explains why the major financial centers in the region (Hong Kong, Singapore, Tokyo) suffered so much less from the global financial crisis than their major Western competitors (London, New York, Frankfurt, Zurich).

East Asia's approach was a major innovation in financial regulation and is even more remarkable as it was dramatically contrary to the prevailing wisdom. It is an innovation that regulators and policymakers from around the world have increasingly looked towards in the wake of the global and Eurozone financial crises.[30] This is arguably East Asia's most important financial innovation in the past fifteen years, and it should be accorded a high profile. Given the significant Asian membership of the G20 and Financial Stability Board, and the region's relative success in the area of financial regulation over the past fifteen years, there are important opportunities for the region to lead global approaches to financial regulation.

East Asia's financial systems span a wide range of development levels, from world-class international financial centers to primitive financial systems. It is thus difficult to address concerns regionally. Nonetheless, looking forward, East Asia should continue to adopt its pragmatic approach to financial innovation, seeking to balance financial stability and economic growth with market enhancing policies and institutional reforms.

Identifying financial limitations across the region will help to identify areas in which innovation should be encouraged. We have identified five areas that should be of central concern for financial stability and economic growth: trade finance, mortgage markets, SME finance, non-bank finance, and mobile financial services.

IV. TRADE FINANCE

International trade enhances efficiency and competitiveness within economies and promotes their economic development.[31] Trade finance is essential to support trade, and the region that finances more trade than

29. Andrew Sheng, CEO of the Fung Institute, has repeatedly advocated a pragmatic approach to finance in Asia. *See, e.g.*, Andrew Sheng, *The Regulatory Reform of Global Financial Markets: An Asian Regulator's Perspective*, 1 GLOBAL POL'Y 191 (2010).

30. Michael Schuman, *Can Asian-Style Capitalism Save the West?*, TIME (Mar. 25, 2012), http://business.time.com/2012/03/25/can-asian-style-capitalism-save-the-west/.

31. DEP'T OF FOREIGN AFFAIRS & TRADE, AUSTRALIAN GOV., TRADE, DEVELOPMENT AND POVERTY REDUCTION (2007), *available at* http://www.ausaid.gov.au/Publications/Documents/trade_devel_poverty.pdf.

any other is East Asia.[32] Some 80% to 90% of global trade transactions are supported by some form of credit financing.[33] Finance for international trade transactions is important for leading nations and particularly critical for developing and emerging markets where both exporters and importers may be severely constrained by limited working capital.

A. The Global Financial Crisis: Impact on Trade Finance

The global financial crisis sparked a substantial worldwide shortfall in trade finance in a global market estimated at US$10–$12 trillion a year.[34] The effects of this contraction were markedly different in different regions.[35] South Asia, Korea, and China were particularly affected, with China experiencing a double-digit decline in the availability of trade finance during 2008.[36] The G20 responded with its "trade finance package" in April 2009, which ensured the availability of $250 billion to support trade finance over a two-year period.[37] The package provided a much-needed boost, and financiers worldwide responded to the package by making substantially more finance available for trade.

Export credit agencies (ECAs) increased credit insurance and risk mitigation capacity by creating programs for short-term lending of working capital and credit guarantees aimed primarily at small and medium-sized enterprises (SMEs).[38] Within the region, the leaders of eleven Asian ECAs formed the Asian Regional Cooperation Group (RCG) of the Berne Union and supported more than $268 billion worth of international trade and investment in 2008.[39] Regional development banks (RDBs) and the International Finance Corporation (IFC) responded by

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32. INT'L CHAMBER OF COMMERCE, RETHINKING TRADE & FINANCE 13 (Thierry Senechal ed., 2013), *available at* http://www.iccindiaonline.org/new-survey.pdf.

33. Marc Auboin, *Restoring Trade Finance During a Period of Financial Crisis: Stock-Taking of Recent Initiatives* 1 (World Trade Org., Working Paper No. ERSD-2009-16, 2009), *available at* http://www.wto.org/english/res_e/reser_e/ersd200916_e.pdf.

34. Marc Auboin, *Boosting the Availability of Trade Finance in the Current Crisis: Background Analysis for a Substantial G20 Package*, POL'Y INSIGHT (Centre Econ. Pol'y Res., Eur.), June 2009, at 1, 3, *available at* http://www.cepr.org/sites/default/files/policy_insights/PolicyInsight35.pdf; Marc Auboin & Martina Engemann, *Trade Finance in Periods of Crisis: What Have We Learned in Recent Years?* 14 (World Trade Org., Econ. Research & Statistics Div., Staff Working Paper No. 2013-01, 2013), *available at* http://www.wto.org/english/res_e/reser_e/ersd201301_e.pdf.

35. *See* Elizabeth Ho, *The International Effects of the Credit Crisis*, 28 REV. BANKING & FIN. L. 102 (2008).

36. Wei Liu & Yann Duval, *Trade Finance in Times of Crisis and Beyond*, ALERTS ON EMERGING POL'Y CHALLENGES (Asia Pac. Research & Training Network on Trade), April 2009, at 1, *available at* http://www.unescap.org/tid/artnet/pub/alert3.pdf.

37. G20 LEADERS' STATEMENT AT THE 2009 LONDON SUMMIT ¶ 22 (2009), *available at* http://www.imf.org/external/np/sec/pr/2009/pdf/g20_040209.pdf.

38. Auboin & Engemann, *supra* note 34, at 17.

39. *Id*.

significantly increasing the capacity of trade facilitation programs.[40] For example, the Asian Development Bank (ADB) increased the capacity of its program from US$400 million to US$1 billion.[41] Central banks in nations with substantial foreign exchange reserves responded by making portions of those reserves available to finance trade.[42] Within East Asia, Korea pledged US$10 billion of its foreign exchange reserve to supply foreign currency to local banks and importers through repurchase agreements.[43] Indonesia acted similarly.[44]

The G20 package ended in 2011. Trade finance market conditions improved continuously over the two-year period up to this time, with falling prices and increasing volumes of transactions, albeit with some volatility around an upward trend.[45] However, recovery has not been even across all countries, and gaps in trade finance persist.

B. Europe's Withdrawal of Trade Finance to Asia

Efforts to address the Asian trade finance gap have been hampered by the ongoing economic crisis in Europe. European banks that traditionally provided trade finance facilities in East Asia have severely limited their extensions of credit so as to improve their capital ratios.[46] Since 2008, the proportion of international credit provided by Eurozone and Swiss banks to emerging Asia–Pacific economies has fallen from 38% to 19% of the region's trade credit.[47] This retreat has led to a dramatic increase in trade finance prices in Asian markets.[48] According to Barclays, "[W]hen European banks started to deleverage due to the Euro crisis [in

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40. *Id*.

41. UNITED NATIONS CONFERENCE ON TRADE & DEV. (UNCTAD), TRADE FINANCING AND REGIONAL FINANCIAL INSTITUTIONS FROM A SOUTH–SOUTH PERSPECTIVE (2012) (Switz.) [hereinafter UNCTAD], *available at* http://unctad.org/meetings/en/SessionalDocuments/ciimem2d11_en.pdf; *The Challenges of Trade Financing*, WORLD TRADE ORG., http://www.wto.org/english/thewto_e/coher_e/challenges_e.htm (last visited Sept. 30, 2013).

42. Auboin & Engemann, *supra* note 34, at 17.

43. *The Challenges of Trade Financing*, *supra* note 41; *see also* Auboin, *supra* note 34, at 5–6.

44. *The Challenges of Trade Financing*, *supra* note 41.

45. Auboin & Engemann, *supra* note 34, at 17.

46. Aki Ito & Shamim Adam, *European Retreat Squeezes Asia Trade Finance As ADB Sees Loan Demand Climb*, BLOOMBERG (Dec. 6, 2011), http://www.bloomberg.com/news/2011-12-05/credit-squeeze-hits-asia-trade-finance-as-adb-loan-demand-soars.html.

47. BANK FOR INT'L SETTLEMENTS, BIS QUARTERLY REVIEW: INTERNATIONAL BANKING AND FINANCIAL MARKET DEVELOPMENTS 17–18 (Claudio Borrio et al. eds., 2012), *available at* http://www.bis.org/publ/qtrpdf/r_qt1212.pdf.

48. Michael Bainbridge, *Basel III Threat to Asian Trade Finance*, FIN. NEWS (Oct. 29, 2012), http://www.efinancialnews.com/story/2012-10-29/basel3-threat-to-asian-trade-finance?ea9c8a2de0ee111045601ab04d673622.

2011], trade finance pricing in Asian countries including India and China moved from 100 basis points to 200 basis points in three weeks."[49]

The reduction in trade finance by European banks has left a funding gap at a time of increasing demand for trade finance in Asia.[50] In 2011, a US$1 billion trade contract between the United States and China could not proceed due to the lack of trade finance.[51] In 2012, Chinese exports grew by 25%, imports climbed by 28.8%,[52] and the demand for trade finance products increased correspondingly.[53]

Fortunately, Japanese banks and some international banks, such as HSBC and Standard Chartered, have stepped in to cover much of the trade finance gap left by the European banks. In the past two years, Japanese banks have dramatically increased their share of large-ticket regional trade finance volumes, growing from 6% in 2010 to an extraordinary 54% in the first quarter of 2012.[54] As a result, Japan became the largest provider of trade finance globally in 2012, with reported trade finance volumes of US$16.8 billion.[55]

Despite Japanese and other nations' banks stepping in, there is still a trade finance shortfall in East Asia today, which is serious given the critical role finance plays in facilitating trade. The shortfall particularly affects the region because a higher proportion of trade is financed in East Asia than other regions: more than 80% of trade letters of credit are issued in Asia.[56]

In addition to a simple shortfall of finance, Asian companies have complained that the cost of trade finance is rising, probably due to the growing pricing power exerted by the few banks in the region willing to extend trade credit.[57] While the top forty institutions represented 95% of

49. *Id*. (citing Kay Chye Tan of Barclays).

50. Ito & Adam, *supra* note 46.

51. UNCTAD, *supra* note 41.

52. Sarah Turner & V. Phani Kumar, *China Data Helps Lift Most Asia Stocks; Japan Down*, WALL ST. J. (Feb. 8, 2013), http://articles.marketwatch.com/2013-02-08/markets/36970890_1_quarterly-net-loss-sony-corp-china-data.

53. *Summary of WTO Report on G-20 Trade Measures (Mid-May to Mid-October 2012)*, WORLD TRADE ORG. (Oct. 31, 2012), http://www.wto.org/english/news_e/news12_e/igo_31oct12_e.htm.

54. MORGAN STANLEY, CROSS ASSET RESEARCH: EU BANK DELEVERAGING & ASIAN TRADE FINANCE (2012), *available at* http://pg.jrj.com.cn/acc/Res/CN_RES/INVEST/2012/6/1/8fa9fcad-09b7-4dc6-a05a-dcb2d692b442.pdf.

55. *Japan Tops Trade Finance Charts*, GLOBAL TRADE REV. (Jan. 25, 2013), http://www.gtreview.com/trade-finance/global-trade-review-news/2013/January/Japan-tops-trade-finance-charts_10637.shtml.

56. Bainbridge, *supra* note 48.

57. Francesco Guerrera, *French Banks Say Adieu to Financing Asian Trade*, WALL ST. J. (Sept. 3, 2012), http://online.wsj.com/article/SB10000872396390443571904577629250952177234.html.

the Asian trade finance market in 2011, only twenty remained in the market for Asian trade finance in 2012.[58]

C. Basel III and Its Impact on Trade Finance

Apart from the retreat of European banks, the largest challenge on the horizon lies in the implementation of Basel III, the third Accord agreed upon by the Basel Committee on Banking Supervision (BCBS), which aims to improve risk management and governance within the global banking sector. While Basel III aims to establish a level playing field across borders, the regulation is based on Western experiences, and its implementation will not have the same impact worldwide.[59] Basel III's requirement of larger capital holdings against trade transactions could slow trade financing in emerging and developing economies in the Asian region by substantially raising transaction costs and discouraging trade financing, thereby exacerbating the trade finance shortage in the region.[60]

Most experts expected that Basel III would considerably increase trade finance pricing worldwide if implemented in its original form.[61] After two years of intense pressure from the banking industry, the BCBS modified the liquidity coverage ratio (LCR) for trade finance products in January 2013 and delayed its full implementation until 2019.[62] The decision to relax the LCR has been regarded by the industry as positive; however, the longer-term impact of Basel III is still likely to increase the cost of financing trade.[63]

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58. MORGAN STANLEY, *supra* note 54.

59. Takehiko Nakao, Vice Minister of Fin. for Int'l Affairs, Japan, Address at the Asian Financial Forum in Hong Kong, International Regulatory Reform and New Financial Infrastructure in Asia (Jan. 14, 2013), *available at* http://www.mof.go.jp/english/international_policy/others/20130114.htm.

60. Douglas J. Elliot calls it a "dangerous misconception" that raising capital requirements will ensure a safer banking requirement and believes considerably more debate is needed. *See* Douglas J. Elliot, *Higher Bank Capital Requirements Would Come at a Price*, BROOKINGS INST. (Feb. 20, 2013), http://www.brookings.edu/research/papers/2013/02/20-bank-capital-requirements-elliott; Shawn Baldwin, *Basel Barriers: How Capital Requirements Would Impede Progress in the Sovereign Debt Crisis*, FORBES (Oct. 15, 2012), http://www.forbes.com/sites/shawnbaldwin/2012/10/15/basel-barriers.

61. *See* Bainbridge, *supra* note 48; Viren Vaghela, *Basel III Threatens to Throttle Trade Finance*, ASIA RISK (July 9, 2012), http://www.risk.net/asia-risk/feature/2190078/basel-iii-threatens-throttle-trade-finance.

62. David Enrich, Geoffrey T. Smith & Andrew Morse, *Rules For Lenders Relaxed*, WALL ST. J. (Jan. 7, 2013), http://online.wsj.com/article/SB10001424127887323482504578226281251185090.html.

63. INT'L CHAMBER OF COMMERCE, GLOBAL RISKS TRADE FINANCE REPORT 59 (Thierry Senechal ed., 2013), *available at* http://www.icctraderegister.com/docs/public/ICC%20Global%20Risks%202013%20Report%20Final%20Version.pdf.

D. Potential Responses

While the governments and regional institutions in East Asia have largely succeeded in coming together to ensure availability of trade finance, there are still significant steps that can be taken to enhance the provision of this critical type of finance for the region. These include further adjustments to the Basel III rules; deepening cross-border cooperation; creating a ring-fenced liquidity pool for trade finance; encouraging public–private partnerships and co-financing; as well as establishing a regional trade finance database.

1. Further Adjustments to the Basel III Rules

Trade finance rates of default and loss have historically been very low, even during crises.[64] In 2009, the International Chamber of Commerce (ICC) and ADB initiated a trade finance default register to collect performance data on trade finance products.[65] The project's data supports the claim that trade finance is much less risky than other types of credit.[66] Between 2008 and 2010, the ICC Trade Finance Register observed fewer than 3,000 defaults in a full dataset of 11.4 million transactions.[67] The data collected determined the probability of loss as just 0.02% in a period of global economic turmoil.[68]

The proposed Basel III rules do not come close to reflecting this very low level of risk involved in trade finance. At present, there is no differentiation between trade finance and other forms of financing in credit conversion factors (CCFs) for calculating the leverage ratio.[69] The current rules require banks to apply a CCF of 100% for all off-balance sheet items when calculating a leverage ratio.[70] Under the first two Basel Accords, trade credit attracted a low risk weighting of 20% because of its low default rates and because trade finance facilities are typically secured

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64. *Id.* at 15.

65. INT'L CHAMBER OF COMMERCE, GLOBAL RISKS—TRADE FINANCE 16 (Thierry Senechal ed., 2011), *available at* http://www.icctraderegister.com/docs/public/ICC-Register_Report_26_October_2011%20-%20Public%20Report.pdf.

66. *Id*.

67. *Id*.

68. Vaghela, *supra* note 61.

69. Garima Chitkara & Aaron Woolner, *Revised LCR Falls Short on Ending Basel III Concerns Over Trade Finance*, ASIA RISK (Feb. 6, 2013), http://www.risk.net/asia-risk/news/2242693/revised-lcr-falls-short-on-ending-basel-iii-concerns-over-trade-finance.

70. Laurence Neville, *Euromoney Trade Finance Survey 2012: Trade Not Getting the Credit*, EUROMONEY (Jan. 2012), http://www.euromoney.com/Article/2959489/Euromoney-Trade-Finance-survey-2012-Trade-not-getting-the-credit.html?Type=Article&ArticleID=2959489.

against the goods or commodities being financed.[71] The Basel Committee's introduction of a flat 100% CCF to certain off-balance sheet items in 2010 was an attempt to reduce incentives for "leveraging."[72] This included letters of credit and similar trade finance facilities.[73] Subjecting trade finance to a CCF of 100% is excessive given that the objective of the leverage ratio is to prevent the build-up of excessive leverage in the banking sector; yet, as trade finance is underpinned by the movement of goods and services, it does not lead to the sort of leveraging that may endanger real economic activity.[74] Rather, it leads to leveraging that actually supports the real economy.

The leverage ratio in its current form does not reflect market realities and will significantly limit the ability of banks to provide affordable financing to businesses in developing countries and SMEs in developed countries.[75] In its report, *Global Risks—Trade Finance 2011*, the ICC identified numerous ways the leverage ratio proposed by Basel III could adversely affect global trade and growth.[76] Examples include encouraging the use of high-risk financial products, increasing the cost of trade, and limiting banks' ability to provide affordable financing to businesses in developing countries.[77]

At present, Basel III also uses a standard asset value correlation (AVC) for corporate banking, imposing a treatment for trade finance that does not reflect its short-term, low-risk nature.[78] The current rule requires the AVC to be multiplied by 1.25 in respect to exposures to financial institutions whose assets exceed US$100 billion and to exposures to all unregulated financial institutions, regardless of size.[79] The increase in AVC applies to all sources of credit risk exposure.[80] The rule is based on

71. BANK FOR INT'L SETTLEMENTS, BASEL COMM. ON BANKING SUPERVISION, TREATMENT OF TRADE FINANCE UNDER THE BASEL CAPITAL FRAMEWORK (2011) (Switz.), *available at* http://www.bis.org/publ/bcbs205.pdf.

72. Neville, *supra* note 70.

73. *Id*.

74. BANKERS' ASS'N FOR FIN. & TRADE AND INT'L FIN. SERV. ASS'N (BAFT–IFSA), TRADE FINANCE—KEY CONCERNS AND RECOMMENDATIONS FOR THE BASEL FRAMEWORK (2011), *available at* http://www.esf.be/new/wp-content/uploads/2011/12/BAFT-IFSA-Basel-Talking-Points-2011-12-01-Final.pdf.

75. INT'L CHAMBER OF COMMERCE, *supra* note 65, at 4.

76. *Id.* at 7–8.

77. *Id*.

78. *Id.*; *see also* BAFT–IFSA, *supra* note 74.

79. *Citi: Sailing the Trade Winds of Change*, TRADE FIN. (Oct. 12, 2012), http://www.tradefinancemagazine.com/Article/3102583/Citi-Sailing-the-trade-winds-of-change.html; AUSTL. PRUDENTIAL REGULATION AUTH., IMPLEMENTING BASEL III CAPITAL REFORMS IN AUSTRALIA—COUNTERPARTY CREDIT RISK AND OTHER MEASURES (2012) [hereinafter APRA], *available at* http://www.apra.gov.au/adi/PrudentialFramework/Documents/APRA_Discussionpaper_BASEL3_CCR_FINAL_2.pdf.

80. APRA, *supra* note 79.

the assumption that such exposures present greater systemic risks or default correlations than others.[81] This assumption ignores the fact that trade finance rates of default are dramatically lower than the rates of default in other banking sectors.

While Basel III subjects corporate banking to a blanket AVC, consumer banking is granted several product specific default curves.[82] Under Basel III, separate AVCs are applied to retail mortgages, credit cards, and other retail exposures.[83] Corporate banking products should likewise be distinguished from one another to accurately reflect their level of risk. Applying a standard AVC is likely to increase the cost of providing trade finance and may prompt smaller banks to pursue other more profitable areas of banking.[84] This could particularly affect emerging markets.

Recent changes to the LCR under Basel III came about after sustained pressure from the trade finance industry.[85] At present, making further changes to the rules may be difficult for the Basel Committee given public sentiment towards banks.[86] Furthermore, the Basel Committee is faced with the challenge that concessions for one type of financing may encourage others to make such claims.[87] Nevertheless, statistical information demonstrates that trade finance is far less risky than other forms of finance and provides a strong case for the industry to continue lobbying the Basel Committee to modify the Basel III rules.[88] Without changes to the leverage ratio and AVC, it is highly likely that the price of trade finance will increase, with damaging consequences for trade and growth globally, particularly in East Asia.

2. Deepening Cross-Border Cooperation

Deepening regional cooperation on trade finance would be beneficial to all parties.[89] By pooling resources and expertise, East Asia would be better equipped to tackle bottlenecks in trade financing.[90] The cost of providing trade finance would also likely decrease.[91] Cooperation within the region would reduce reliance on foreign finance, which tends to be

81. Chitkara & Woolner, *supra* note 69.
82. *Id*.
83. *Id*.
84. *Citi: Sailing the Trade Winds of Change*, *supra* note 79.
85. Enrich, Smith & Morse, *supra* note 62.
86. Neville, *supra* note 70.
87. Chitkara & Woolner, *supra* note 69.
88. INT'L CHAMBER OF COMMERCE, *supra* note 65.
89. Liu & Duval, *supra* note 36, at 3.
90. *Id*.
91. UNCTAD, *supra* note 41.

heavily pro-cyclical and often destabilizing,[92] as is seen in the current trade finance gap caused by the retreat of European banks from Asia.

In March 2012, the Export–Import banks of the BRICS (Brazil, Russia, India, China, and South Africa) agreed to extend credit facilities to each other in local currencies.[93] It is expected this move will reduce the demand for fully convertible currencies for transactions among the BRICS, which should help to reduce transaction costs.[94] The initiative will also assist to shield the BRICS from the Eurozone crisis and boost trade despite the slow growth of developed country markets.[95]

As the Eurozone crisis continues, it is likely that European banks will continue to withdraw credit from the region. Strengthening the regional network of export–import banks and development finance institutions within Asia, and entering into agreements similar to those of the BRICS to extend credit to each other in local currencies, would greatly assist the region. Deepening cross-border cooperation within Asia will reduce the cost of trade finance within the region, tackle current trade finance bottlenecks, and help to insulate Asian economies from the crisis in Europe.

Despite the benefits that could be derived from regional cooperation, previous initiatives to improve financial cooperation within Asia have not always succeeded. In 2010, Australia's idea of establishing a trade finance network within Asia was not supported by other members of the East Asia Summit.[96] Nonetheless, the creation of a trade finance network within Asia is something that regional countries should continue to pursue. Its potential benefits to the region, given the on-going demand for trade credit in the region, would be substantial indeed.

3. Creating a Ring-Fenced Liquidity Pool for Trade Finance

Since the global financial crisis, banks have become more risk averse and prefer to work with large, sound multinational firms.[97] SMEs and new exporters have been especially vulnerable to the tightening trade finance conditions, as they typically have a weaker capital base and bar-

92. *Id*.
93. *Id*.
94. *Id*.
95. *Id*.
96. Eko NM Saputro, *The East Asia Summit and Regional Financial Cooperation*, E. ASIA F. (Aug. 18, 2011), http://www.eastasiaforum.org/2011/08/18/the-east-asia-summit-and-regional-financial-cooperation/.
97. Jean-Pierre Chauffour & Mariem Malouche, *Trade Finance During the 2008–9 Trade Collapse: Key Takeaways*, ECON. PREMISE (World Bank, Washington D.C.), Sept. 2011, at 1, 5, *available at* http://siteresources.worldbank.org/INTPREMNET/Resources/EP66.pdf.

gaining power in relation to global buyers and banks.[98] Firms in developing countries with underdeveloped financial systems and weak contractual enforcement systems are particularly affected by a lack of affordable trade finance as they need it the most.[99]

Establishing a small, targeted liquidity pool run by international financial institutions would be useful to assist smaller segments of the market that are more vulnerable to the contraction of trade credit.[100] After the global financial crisis, much of the increased liquidity support provided by central banks was used to ease money market conditions and improve liquidity ratios.[101] As a result, trade transactions did not benefit greatly from the liquidity support.[102] Creating a ring-fenced liquidity pool for trade finance would ensure that adequate funds remain available to assist trade by SMEs and new exporters, even during times of crisis when banks may prefer to direct funds elsewhere.

For banks, the downside to ring-fencing is that liquidity is prevented from being used for other purposes at times when the other purposes might be more pressing.[103] Large cross-border banking groups benefit from the efficiency of holding liquidity centrally and directing it to locations where it is most needed.[104] This process is more cost-effective than ring-fencing liquidity.[105] Nonetheless, any disadvantages of a ring-fenced liquidity pool for trade finance would be far outweighed by the benefit of ensuring that trade finance is still available for SMEs and new exporters when economic crises occur and trade finance conditions tighten. The global financial architecture needs to reflect that the finance of trade is probably the most important form of finance for the real economy.

4. Encouraging Co-Finance Between the Various Providers of Trade Finance, Including Public Sector-Backed Institutions

The private sector provides the majority of trade finance. In 2009, private banks accounted for about 80% of all trade finance.[106] Such reliance on banks leaves trading firms vulnerable in times of crisis, as we have seen with the recent drop in trade credit provided to Asia by Euro-

98. *Id*.

99. *Id*.

100. Auboin, *supra* note 34, at 5.

101. Auboin & Engemann, *supra* note 34, at 19.

102. *Id*.

103. Viren Vaghela, *Asian Regulators Get Tough on Liquidity Ring-Fencing*, ASIA RISK (Apr. 1, 2011), http://www.risk.net/asia-risk/feature/2041993/asian-regulators-tough-liquidity-ring-fencing.

104. *Id*.

105. *Id*.

106. Pascal Lamy, *Trade Finance: Rebooting the Engine*, INT'L TRADE F. MAG. (Jan. 1, 2009), http://www.tradeforum.org/Trade-Finance-Rebooting-the-Engine.

pean banks.[107] To reduce the impact of crises on trade finance flows, public sector actors, such as ECAs and RDBs, should share some of the private sector risk.[108] An example of a successful public–private partnership was the introduction of the Global Trade Liquidity Program by the IFC in 2009, which allowed for a 40%–60% co-lending agreement between the IFC and commercial banks.[109] The program allowed banks to continue to support clients with trade finance and gave the IFC the ability to channel liquidity and credit into markets to help revitalise trade flows by leveraging the banks' networks across emerging markets globally.[110]

Mobilizing private and public sector institutions to form a partnership during times of crisis would ensure that institutions with excess capacities have an opportunity to meet the needs of those with insufficient funds.[111] However, co-financing between the two sectors need not only be limited in times of crisis. Longer-term cooperation would help to close the structural market gaps in the region and reduce the impact of any future financial crises on the availability of trade finance.[112]

5. Establishing a Regional Trade Finance Database to Facilitate the Collection and Exchange of Information

Filling information gaps between public and private institutions is of great importance, particularly during times of economic crisis. While responding to the financial crisis that commenced in 2008, members of the Bankers' Association for Finance and Trade complained that a series of measures announced by ECAs and RDBs were hard to track.[113] They also lacked access to critical information, such as who was providing what finance and under what criteria.[114] These types of information gaps affect the ability of both the public and private sectors to respond to trade finance challenges, particularly in developing countries.[115] It is thus crucial that information is collected and shared among trade finance stakeholders within the region.

The ICC Trade Register, established by the ICC and ADB in 2009, was a significant step towards increasing access to trade finance infor-

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107. Guerrera, *supra* note 57.

108. Auboin, *supra* note 34, at 5.

109. Auboin & Engemann, *supra* note 34, at 18.

110. *Global Trade Liquidity Program*, INT'L FIN. CORP., http://www1.ifc.org/wps/wcm/connect/Industry_EXT_Content/IFC_External_Corporate_Site/Industries/Financial+Markets/Trade+and+Supply+Chain/GTLP/ (last visited Sept. 30, 2013).

111. Auboin & Engemann, *supra* note 34, at 14.

112. *Id.* at 3.

113. Lamy, *supra* note 106, at 5.

114. *Id*.

115. *Id*.

mation. So far, the database has recorded over fifteen million transactions worldwide, reflecting 70% of global transactions.[116] It is currently the most comprehensive data available on trade and export finance.[117] Nevertheless, the register only records data provided from participating banks.[118] While this includes twenty-one of the most active banks in worldwide trade finance,[119] gaps in data remain. Within the region, much more information is needed about how SMEs, in particular, finance their trade and the challenges they face.

While the information provided by the ICC Trade Register is crucial for the development of trade finance policy, the Register does not provide stakeholders with up-to-date information about the type and amount of trade finance being provided at the present time. In times of crisis, such information is needed to allow trade finance institutions to respond rapidly.

In order to address gaps in trade finance information, a regional database should be created that disseminates relevant information to both public and private institutions, such as the development of programs by ECAs. This type of database should include all trade finance stakeholders within the Asian region and not just commercial banks. It is important that the information gap between the public and private sectors is filled so that both sectors can respond quickly when shortfalls in trade finance arise.

V. MORTGAGE MARKETS

Strong housing markets are often equated with strong economic growth and development. Given the growing population and trend toward urbanization in East Asia, a strong mortgage market is a critical underpinning for local housing markets. Mortgage market development varies greatly across the Asian region. Figure 9 shows the extent of mortgage market development in selected Asian economies in 2006 (before the crisis).[120] At this point in time, Hong Kong's mortgage mar-

116. INT'L CHAMBER OF COMMERCE, THE ICC TRADE REGISTER (2012), *available at* http://www.iccwbo.org/uploadedFiles/Services/Trade_Facilitation/ICC%20Trade%20Register%20Brochure.pdf.

117. *Id*.

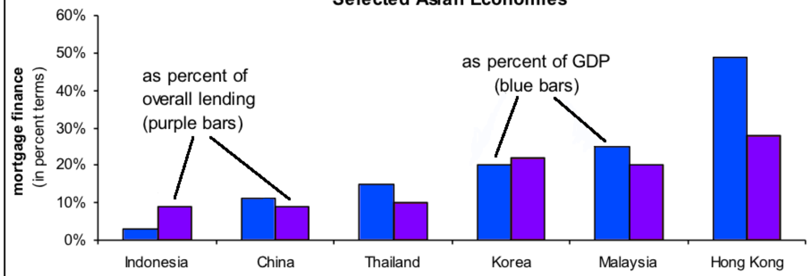
118. *The ICC Trade Register*, INT'L CHAMBER COM., http://www.icctraderegister.com/ (last visited Sept. 30, 2013).

119. *Id*.

120. We show pre-crisis levels on the supposition that markets will recover toward their long-term equilibrium levels of mortgage finance after adjusting to the temporary impact of the global financial crisis. *See* Loïc Chiquier, *Housing Finance in East Asia* (World Bank, Working Paper No. 39393, 2006) (Fr.), *available at* http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/04/13/000090341_20070413101713/Rendered/PDF/393930EAP0Housing1Finance01PUBLIC1.pdf.

kets—unsurprisingly in light of recent events—had already developed the most, standing at about 50% of GDP and 25% of overall lending. At the other end of the spectrum, mortgage markets in Indonesia represented only about 3% of GDP.

Figure 9: Size of Residential Mortgage Debt in 2005 in Selected Asian Economies



Source: Chiquier (2006).

In virtually every developed economy, mortgage financing supports housing markets. However, its effect varies in different domestic financial sectors. China's mortgage finance market, for example, eclipses mortgage markets in the rest of Asia.[121] Yet, the Chinese mortgage market remains but a fraction of the size of the U.S. market.[122] China's housing loans-to-GDP ratio stands at about 16%, while U.S. ratios peaked at about 80%.[123] Government supply of housing and purchasing using pooled family resources explain China's housing loans-to-GDP ratio.[124]

In most developed economies, strong housing markets underpin and correlate with robust economic growth.[125] A strong housing market also creates jobs.[126] In Hong Kong, rapid housing sector development has not

121. *Mortgage Market in Asia*, ECON. WATCH (Oct. 26, 2010), http://www.economywatch.com/mortgage/asia.html.

122. *Id*.

123. Hans Wagner, *Will China Housing Market Follow the U.S. in a Mortgage Bust?*, MARKET ORACLE (June 17, 2010), http://www.marketoracle.co.uk/Article20386.html.

124. *Id*.

125. Leah Schnurr, *Housing Market Rebound Fails to Recharge Economy*, NBC NEWS (Nov. 5, 2012), http://www.nbcnews.com/business/economywatch/housing-market-rebound-fails-recharge-economy-1C6859650; Jonathan Spicer & Leah Schnurr, *Housing Still Impediment to U.S Growth: Fed Officials*, REUTERS (Oct. 5, 2012), http://www.reuters.com/article/2012/10/05/us-usa-fed-idUSBRE89419L20121005.

126. Spicer & Schnurr, *supra* note 125.

correlated with vigorous growth in gross metropolitan product (GMP).[127] In Singapore, on the other hand, highly developed banking and equity markets, along with associated legal and regulatory infrastructures, have helped support sustained growth in housing finance markets.[128] Nevertheless, Singapore's active mortgage market makes the city-state more vulnerable to an overheated and overpriced market. Japan possesses Asia's second-largest mortgage market and the most sophisticated mortgage financing market.[129] With mortgage-to-GDP ratios of approximately 40%, the reliance of Japan's financial markets on mortgage-generated returns cannot be underestimated.[130] This dependence on mortgage-backed finance has led the Japanese economy to heights and depths that are all too familiar.

In developing economies, the relationship between mortgage finance and economic growth is murkier. Housing prices in China continue to rise at an alarming rate, in spite of the relatively small size of the residential finance market.[131] The Chinese government and many investment analysts fear that the Chinese housing market may resemble that of Japan in the 1970s.[132] However, Koyo Ozeki points out that while Japan's economy had matured by the 1980s, China's economy still possesses enormous upside growth potential.[133] China's young demographic profile will continue to drive the demand for new housing for the foreseeable future.[134]

In Southeast Asia, the link between mortgage markets and economic growth also remains relatively unclear. In India, the mortgage finance market represents about 8% of GDP at US$104 billion.[135] India's mortgage industry remains at a nascent stage, and mortgage markets should grow by 15% annually to achieve a mortgage-to-GDP level of 13% with-

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127. Haibin Zhu, *The Structure of Housing Finance Markets and House Prices in Asia*, 2006 BIS Q. REV. 55, *available at* http://www.bis.org/publ/qtrpdf/r_qt0612g.pdf.

128. *Id*.

129. *Mortgage Market in Asia*, *supra* note 121.

130. *Id*.

131. Xiaoyi Shao & Natalie Thomas, *China Home Prices Rise Further in August, Testing Government*, REUTERS (Sept. 18, 2013), http://www.reuters.com/article/2013/09/18/us-china-property-prices-idUSBRE98H02120130918.

132. Andrew Batson, *China Seeks to Tame Boom, Stirs Growth Fears*, WALL ST. J. (Jan. 19, 2010), http://online.wsj.com/article/SB10001424052748703405704575014703152997616.html.

133. Koyo Ozeki, *The Chinese Real Estate Market: A Comparison with Japan's Bubble*, ASIAN PERSP. (PIMCO, Newport Beach, Cal.), Dec. 2009, *available at* http://media.pimco-gloal.com/pdfs/pdf/PIMCO%20Asian%20Perspectives%20by%20Koyo%20Ozeki%20Dec%202009_US.pdf.

134. *Id*.

135. Pooja Thakur & Anto Antony, *India 15% Loan Growth Led by Cautious Buyers: Mortgages*, BLOOMBERG (Nov. 8, 2012), http://www.bloomberg.com/news/2012-11-08/india-15-loan-growth-led-by-cautious-buyers-mortgages.html.

in the next five years.[136] The migration of professionals to major cities such as Mumbai and Bangalore continues to support such growth. In a population averse to debt, the average mortgage loan repayment duration stands at about thirteen years.[137] In Thailand, the housing market is supported by a strong land registry system that has been in place for more than a century. The registration system has evolved to being able to facilitate land title transfers extremely quickly and efficiently (often in less than a day) and can easily be navigated without the need of a lawyer or a real estate agent.[138] The home financing market is very competitive, and there has been a recent lowering of interest rates to help stimulate home ownership for first time buyers.[139]

Mortgage markets in developing parts of Southeast Asia remain very small. In Indonesia, few homebuyers take out mortgages, as purchasers traditionally pay cash for their residences.[140] Housing markets appear to have flourished nevertheless, although lack of credit finance has tended to keep home prices low. In Vietnam and Cambodia, mortgage markets do not yet play a significant role in supporting the housing markets.[141] That is expected to change, particularly in Vietnam as its economy continues to evolve.[142]

Urban migration has supported the need for and development of housing markets across Asia. By 2030, 50%–55% of Asian people are expected to reside in urban regions.[143] Urbanization will continue to underpin the importance of the housing market and housing finance for low- and middle-income families. As such, stable housing markets and mortgage markets that finance home purchases remain vitally important.

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136. *Id*.

137. EMKAY GLOBAL FIN. SERVS. LTD., INDIA—HOUSING FINANCE: UNDETERRED BY ROUGH SEAS (2012), *available at* http://emkayglobal.com/downloads/researchreports/India%20-%20Housing%20Finance_Sector%20Report.pdf.

138. Khan Prachuabmoh, President of Gov't Hous. Bank, Thailand, Address at The Wharton School, University of Pennsylvania, Thailand's Home Mortgage Market (June 18, 2010), *available at* http://ihfp.wharton.upenn.edu/25th%20Anniversary%20Presentations%5CKhan.pdf.

139. *Mortgage Market to Be Heated*, AFTA SOURCES (Aug. 10, 2011), http://www.afta sources.com/news/show-1635.html.

140. *See* Sonia Kolesnikov-Jessop, *Bali's Cash Property Market Keeps Prices Up*, N.Y. TIMES (Feb. 9 2009), http://www.nytimes.com/2009/01/29/realestate/29iht-rebali.1.19777791.html?_r=0.

141. RON FLORANCE, WELLS FARGO, FRONTIER MARKETS: VIETNAM AND CAMBODIA (2012), *available at* https://www.wealthmanagementinsights.com/UserDocs/Frontier_Markets_Report_Vietnam_and_Cambodia_FINAL_7.13.12_Client_approved_ADA.pdf.

142. *Id*.

143. U.N. Population Div., Dep't of Econ. & Soc. Affairs, World Urbanization Prospects: The 2001 Revision (2002), *available at* http://www.un.org/esa/population/publications/wup2001/wup2001dh.pdf.

A. The Mixed Reform of Housing-Related Lending in Asia

The Financial Stability Board (FSB) Guidelines on mortgage underwriting serve as a useful starting point in deciding whether various Asian countries have the regulatory institutions in place to provide for pro-development outcomes and manage the risks to the financial sector concomitant with mortgage finance.[144] These principles include effective verification of income and other financial information, reasonable debt service coverage, appropriate loan-to-value ratios, effective collateral management, prudent use of mortgage insurance, and effective supervisory powers and tools.

Differences in regulations designed to maintain appropriate loan-to-value ratios represent an important illustration of the way that financial regulation can balance development needs and financial risks. Korea represents a positive example. The Financial Supervisory Service (FSS) targeted loan-to-value requirements for certain zoning areas in particular and applied different maximum levels to various zones.[145] Korean regulators then changed these requirements counter-cyclically in response to changes in the economy.[146] Korea's financial regulators coordinated with other government departments to ensure that loan-to-value requirements served the broader interests of regional development and other policy objectives. As a result of such targeted policies, housing price-to-income ratios rose by only 7% in Korea between 2000 and 2007.[147] In contrast, these ratios rose more than 30% in a range of OECD countries.[148] Such an example shows how dynamic mortgage regulations can strike a balance between development and risk-management needs better than a fixed policy rule.

The Hong Kong case shows how regulators may need to constantly adjust their mortgage underwriting rules. In Hong Kong, housing prices

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144. FIN. STABILITY BD., FSB PRINCIPLES FOR SOUND RESIDENTIAL MORTGAGE UNDERWRITING PRACTICES (2012), *available at* http://www.financialstabilityboard.org/publications/r_120418.pdf.

145. OH Hwa Se, *Loan-to-Value As Macro-Prudential Policy Tool: Experiences and Lessons of Asian Emerging Countries* (Duisenberg Sch. of Fin., Policy Paper Series, Paper No. 33, 2013), *available at* http://www.dsf.nl/assets/cms/File/Research/DSF%20Policy%20Paper%20No%2033%20Loan-to-Value%20as%20Macro-Prudential%20Policy%20Tool.pdf.

146. Soon-taek Chang, *Mortgage Lending in Korea: An Example of a Countercyclical Macroprudential Approach* (World Bank, Policy Research Working Paper No. 5505, 2010), *available at* http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5505.

147. Se, *supra* note 145, at 7.

148. *Id.* at 7. For more on the response of Korean real estate prices to changes in loan-to-value and other requirements, see Deniz Igan & Heedon Kang, *Do Loan-to-Value and Debt-to-Income Limits Work? Evidence from Korea* (Int'l Monetary Fund, Working Paper No. 11/297, 2011).

have risen 73% over the last three years,[149] yet the city's GDP grew only 1.8% in 2012.[150] This has caused the authorities to question the sustainability of current high property prices. In response, the Hong Kong Monetary Authority (HKMA) instituted its fifth round of property market measures—including tightening the maximum debt servicing limit and capping home loan amounts in an effort to cool the overpriced residential property market.[151] Economists expect these measures to cut Hong Kong mortgage lending by 25% to HK$171.3 billion (US$22.1 billion), which would return the market to levels approaching those in 2007.[152] Nonetheless, the market remains overpriced.[153]

Indian policymaking shows the opposite extreme: how slow-moving and contradictory regulation can limit development and increase systemic risk.[154] Urban housing has failed to keep up with rapidly expanding demand for residential housing due to failures in land and housing laws and mortgage finance laws.[155] Inappropriate formal institutions governing the supply of land and real estate have resulted in high transactions costs, fragmented markets, tenuous approval processes for building, and low mortgage rates.[156]

Prudential regulation in India has adjusted slowly to the rapidly evolving demand for housing. First, changes to formal institutions have allowed for broader changes in the risks and returns to mortgage finance.[157] Easier recovery reduced risks for financial institutions and transferred some of those risks to borrowers. Instead of the previous quantitative restrictions placed on lending, Indian mortgage finance institutions allowed lenders and borrowers to take greater risks but price those risks themselves.[158] Second, changes in formal institutions have led

149. RATING & VALUATION DEP'T, HONG KONG PROPERTY REVIEW MONTHLY SUPPLEMENT (2013) (China), *available at* http://www.rvd.gov.hk/doc/en/statistics/full.pdf.

150. INT'L MONETARY FUND, WORLD ECONOMIC OUTLOOK: COPING WITH HIGH DEBT AND SLUGGISH GROWTH (2012), *available at* http://www.imf.org/external/pubs/ft/weo/2012/02/pdf/text.pdf.

151. Oswald Chen, *Mortgage Lending Value May Fall*, CHINA DAILY (Sept. 19, 2012), http://www.chinadaily.com.cn/hkedition/2012-09/19/content_15766724.htm.

152. *Id*.

153. Chester Yung, *IMF: Hong Kong Property Sector Poses Severe Risk*, WALL ST. J. (Dec. 12, 2012), http://online.wsj.com/article/SB10001424127887324024004578174441917470354.html.

154. JOHN Y. CAMPBELL, TARUN RAMADORAI & VIMAL BALASUBRAMANIAM, PRUDENTIAL REGULATION OF HOUSING FINANCE IN INDIA: 1995–2011 (2012), *available at* http://scholar.harvard.edu/files/campbell/files/regulators_regulationappendix_09082012.pdf.

155. KPMG, BRIDGING THE URBAN HOUSING SHORTAGE IN INDIA (2012) (India), *available at* http://www.kpmg.com/IN/en/IssuesAndInsights/ArticlesPublications/Documents/Urban-housing-shortage-in-India.pdf.

156. U.N. Human Settlements Programme, Housing Finance Mechanisms in India 8–10 (2008) (India), *available at* http://www.unhabitat.org/pmss/listItemDetails.aspx? publicationID=2507.

157. *Id*.

158. *Id*.

to changes in informal institutions. The "rules of the game" of mortgage lending have clearly changed, as informal norms have encouraged a large increase in mortgage lending. Mortgage lending as a percentage of GDP has increased four-fold from 2008 to 2012.[159] Third, Indian institutions—despite their adaptation—have remained "sticky." In contrast to India's waves of mortgage-related reform, regulators in jurisdictions like Hong Kong and Singapore reform their regulations often, responding to housing market needs and macroeconomic developments.[160] Such Indian stickiness—or, in academic terms, institutional rigidity—has kept mortgage finance at too low a level to supply enough housing to meet existing needs.

B. Financial Crises and Mortgage Financing

Given the role of asset securitization in the U.S. subprime crisis, a key area for housing finance reforms has been to ensure the retention of a degree of originator interest in securitized loans. Securitization enabled loan originators to quickly move loans from their balance sheets.[161] This created the moral hazard of originators having no stake in the quality of the loans being written.[162] Mandating the retention of a permanent stake in a portion of the credit risk is likely to improve the quality of loans originated.[163]

An important way forward for East Asia is the enhancement of institutional and legal frameworks that will support the development of a robust mortgage finance market.[164] These institutional frameworks in-

159. In 2008, UN-Habitat bemoaned low mortgage lending-to-GDP ratios of percent. By 2012, Thakur and Anto had observed this ratio increase to about 8%. Thakur & Antony, *supra* note 135.

160. *See, e.g.*, Sharon Chen, *Singapore Tightens Rules for Home Loans in Latest Curbs*, BLOOMBERG (June 29, 2013), http://www.bloomberg.com/news/2013-06-28/singapore-tightens-rules-for-home-loans-in-latest-curbs.html (discussing recent measures introduced in Singapore).

161. Sara Malekan & Georges Dionne, *Securitization and Optimal Retention Under Moral Hazard* (HEC Montreal, Working Paper No. 2038831, 2012), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2038831.

162. Jack Selody & Elizabeth Woodman, *Reform of Securitization*, *in* FINANCIAL SYSTEM REVIEW 47 (2009) (Can.), *available at* http://www.bankofcanada.ca/wp-content/uploads/2010/04/fsr_ 1209.pdf.

163. Section 941 of the Dodd–Frank Wall Street Reform and Consumer Protection Act (2010) requires securitizers to retain a minimum 5% interest in mortgages they securitize to better align their incentives. Ryan Bubb & Alex Kaufman, *Securitization and Moral Hazard: Evidence Credit Score Cutoff Rules* (Fed. Reserve Bank of Boston, Public Policy Discussion Paper No. 11-6, 2011), *available at* http://www.bostonfed.org/economic/ppdp/2011/ppdp1106.pdf; *see also* Selody & Woodman, *supra* note 162, at 50.

164. Douglas W. Arner et al., *Property Rights, Collateral, Creditors Rights, and Insolvency in East Asia*, 42 TEX. INT'L L. J. 515 (2007).

clude property rights, effective enforcement mechanisms, and regulatory regimes.[165]

C. Moving Forward

Policymakers in many Asian countries have adopted policies that encourage mortgage finance of residential housing and other real estate. This credit creation deepens domestic financial markets and encourages access to residential housing. It also has multiplier effects in the construction, consumer goods, and other industries. The potential of these reforms to underpin further economic growth is large in many of Asia's middle-income economies. However, as the United States and European Union experiences show, linkages between mortgage finance and derivative assets, like mortgage-based securities, can create substantial systemic risk.

Most countries are pursuing mortgage finance reform as part of a larger effort to strengthen their financial markets.[166] In developing regions of Asia, market reforms have mostly been orientated towards strengthening core areas, meeting international standards, and increasing prudential regulatory capacity, with less focus on reforming domestic mortgage finance markets. With housing clearly being a primary factor in domestic economic development, greater efforts must be undertaken regionally to initiate reforms that protect lenders and borrowers and facilitate flows to finance transactions. Regulatory reform efforts in the housing finance sector must strike a balance between advancing homeownership, which supports the domestic economy, and preventing an inflated real estate bubble, which harms consumers and remains a real risk in a number of Asian countries.

Asian countries would do well to concentrate on following the advice in the FSB Guidelines. At one extreme, the overzealous establishment of income ceilings and checks on that income can restrict the flow of funds into residential housing. At the other extreme, lax regulations can encourage banks to over lend to classes of borrowers who cannot repay. East Asian nations are generally seeking to strengthen their legal, institutional, and policy foundations, and this endeavor may well be the most useful contribution that can be made to mortgage finance reform. Perhaps the primary focus to promote mortgage markets in the region

165. Johan Torstensson, *Property Rights and Economic Growth: An Empirical Study*, 47 KYKLOS: INT'L REV. FOR SOC. SCI. 231 (1994).

166. For example, the United States. *See* Jeff Mason, *Obama Touts Mortgage Finance Plan, Highlights Private Sector Role*, REUTERS (Aug. 6, 2013), http://www.reuters.com/article/2013/08/06/us-obama-housing-idUSBRE97516Q20130806.

should be upon the strength of their foundations, much as it is when one is building a home.

VI. SME FINANCE

Small and medium sized enterprises (SMEs) are key drivers of economic growth. Access to capital, however, poses challenges for SMEs. SMEs often need capital to get off the ground and achieve scale, and thereby support the economy. Thus, it is important that governments and financial institutions find ways to increase access to financial capital for SMEs.

Most of the region's financial systems are characterized by a small number of large domestic banks.[167] These banks are often quite effective at funding governments and large corporations.[168] However, they tend to be less effective in funding other forms of economic activity. At the same time, while equity markets across the region are likewise at varying levels of development, as a general matter, equity markets are effective across the more developed economies in the region in supporting large enterprises.[169] Finally, while bond markets were underdeveloped at the time of the Asian financial crisis, now bond markets are generally functional across the more developed economies in the region.[170] Bond markets likewise, though, tend to be most effective in funding government and large enterprises.[171] Thus, there is a particular need in the region to focus on innovation in supporting the provision of finance other than to governments and large firms, and particularly to SMEs.

A. The Challenge of SME Finance

In many ways, SME finance is one of the more significant aspects of financial development for supporting the real economy and growth.[172] It has also been among the more difficult to achieve. The important role

167. *See* Rolf H. Weber & Douglas W. Arner, *Toward a New Design for International Financial Regulation*, 29 U. PA. J. INT'L L. 391 (2007).

168. *Id*.

169. Catriona Purfield et al., *Asian Equity Markets: Growth, Opportunities, and Challenges* (Int'l Monetary Fund, Working Paper No. 06/266, 2006), *available at* http://www.imf.org/external/pubs/ft/wp/2006/wp06266.pdf.

170. Philip Turner, *Weathering Financial Crisis: Domestic Bond Markets in the EMEs*, *in* WEATHERING FINANCIAL CRISES: BOND MARKETS IN ASIA AND THE PACIFIC 15 (2012), *available at* http://www.bis.org/publ/bppdf/bispap63.pdf.

171. INT'L CAPITAL MKT. ASS'N, ECONOMIC IMPORTANCE OF THE CORPORATE BOND MARKETS 13 (2013), *available at* http://www.icmagroup.org/assets/documents/Media/Brochures/2013/Corporate-Bond-Markets-March-2013.pdf.

172. EDINBURGH GRP., GROWING THE GLOBAL ECONOMY THROUGH SMES (2012), *available at* http://www.edinburgh-group.org/media/2776/edinburgh_group_research_-_growing_the_global_economy_through_smes.pdf.

SMEs play at the domestic and international levels is well documented.[173] At the same time, SMEs face a variety of financial challenges in Asian economies.[174] While factors such as inflation and exchange rate fluctuations affect SMEs to a far greater extent than their larger corporate counterparts, the largest single challenge for an SME in a developing economy is securing a bank as a funding source. In 2008, the World Bank released a report that showed few SMEs had a formal bank loan (only about 20% in China, 30% in Russia, and 55% in India).[175] The number of SMEs within those countries that had not applied for loans at all was very high. For instance, of SMEs without a bank loan in China, 85% had never applied for one.[176] Likewise, in India, 96% of SMEs without a loan had never sought one.[177] Accessing finance is disproportionately more difficult for SMEs in developing countries. The IFC found in 2011 that some 41% of SMEs in least developed countries (LDCs) cited a lack of finance as a major constraint on their growth and development, compared with 30% in middle-income countries, and 15% in the most advanced high-income countries.[178]

The early stages of SME growth and evolution are particularly critical. Businesses are the most financially vulnerable during their launch and early growth stages. During the early stages of development, SMEs do not typically have formal funding options and instead rely heavily on self-funded, internal sources.[179] This most often includes savings of principals or, less commonly, funding through the sale or pledging of privately owned assets, a concept that is rare in developing economies. When self-funding has been exhausted, the availability of external sources of funding often becomes the factor limiting a firm's growth and productivity.[180]

The lack of SME financing may stem from a number of factors, such as a lack of legislation supporting credit and allowing security in-

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173. *Id*.

174. MIRJAM SCHIFFER & BEATRICE WEDER, INT'L FIN. CORP., FIRM SIZE AND THE BUSINESS ENVIRONMENT: WORLDWIDE SURVEY RESULTS 15 (2001), *available at* http://wwwwds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2001/12/01/000094946_01111704003345/Rendered/PDF/multi0page.pdf.

175. WORLD BANK, FINANCE FOR ALL?: POLICIES AND PITFALLS IN EXPANDING ACCESS (2008), *available at* http://siteresources.worldbank.org/INTFINFORALL/Resources/4099583-1194373512632/FFA_book.pdf.

176. *Id*.

177. *Id*.

178. INT'L FIN. CORP., SME FINANCE POLICY GUIDE (2011), *available at* http://www.gpfi.org/sites/default/files/documents/SME%20Finance%20Policy%20Guide.pdf.

179. *Id*.

180. Thorsten Beck, Asli Demirgüç-Kunt & Ross Levine, *SMEs, Growth and Poverty* (Nat'l Bureau of Econ. Research, Working Paper No. 11224, 2005), *available at*: http://www.nber.org/papers/w11224.pdf?new_window=1.

terests to be created in the types of collateral that SMEs typically have. Underdeveloped or unenforceable property rights or weak banking and institutional structures may also further inhibit funding options.

SMEs in developing and emerging economies face biases within the formal banking sector, where banks prefer to limit their exposure to risk by lending to large corporations and governments rather than to small business entities, effectively squeezing SMEs out of the loan market.[181] When SMEs are able to secure formal funding through a bank, they are often subjected to inordinately high interest rates or overly burdensome terms.[182] Nevertheless, a recent report by the IFC and McKinsey found that traditional banks are still the most important source of formal external financing for SMEs.[183] This, in large part, is because capital market access is very difficult for SMEs. This is the case even in developed nations and is even more so in developing ones where capital markets are usually unsophisticated and underdeveloped.[184]

The financial climate became considerably more challenging for SMEs during the recent global financial crisis when SMEs had fewer options than their larger more internationally integrated counterparts.[185] Higher interest rates and increased collateral requirements were but some of the tightened credit conditions SMEs faced. The subsequent recovery has been globally uneven and sector-sensitive in much of the world. For example, the requirements of Basel III are likely to impact SMEs more than some other borrowers.[186] The extent of the impact will depend on how a country and its institutions implement the Basel reforms and international standards pertaining to banking supervision and capital requirements.[187] Various Basel requirements could discourage formal banks from lending to the SME sector, exacerbating the already precarious position of SMEs in accessing formal bank finance.[188] This will significantly affect how SMEs perform and evolve.

181. Chauffour & Malouche, *supra* note 97.

182. Press Release, Eur. Comm'n, Improving Access to Finance for SMEs: Key to Economic Recovery (May 2, 2013) (Belg.), *available at* http://europa.eu/rapid/press-release_MEMO-13-393_en.htm.

183. PEER STEIN ET AL., TWO TRILLION AND COUNTING: ASSESSING THE CREDIT GAP FOR MICRO, SMALL, AND MEDIUM-SIZE ENTERPRISES IN THE DEVELOPING WORLD (2010), *available at* http://www.mspartners.org/download/Twotrillion.pdf.

184. Chauffour & Malouche, *supra* note 97.

185. EDINBURGH GRP., *supra* note 172.

186. ASS'N OF CHARTERED CERTIFIED ACCOUNTANTS, FRAMING THE DEBATE: BASEL III AND SMES (2011), *available at* http://www.accaglobal.org.uk/content/dam/acca/global/PDF-technical/small-business/pol-af-ftd.pdf.

187. *See generally* RICARDO GOTTSCHALK, BASEL II IMPLEMENTATION IN DEVELOPING COUNTRIES AND EFFECTS ON SME DEVELOPMENT (2007) (U.K.), *available at* http://www.ids.ac.uk/files/gottschalk_ICRIER _paper07.pdf.

188. ASS'N OF CHARTERED CERTIFIED ACCOUNTANTS, *supra* note 186.

B. Recommendations for Increasing SME Finance

The primary need of SMEs is for improved access to finance from the bank and non-bank sectors. Commentators often focus on the need to develop local capital markets, but the highly developed institutional infrastructure needed for capital markets to function makes their development a major challenge. Furthermore, the high transaction costs associated with equity and bond issuances mean that capital markets are not well adapted to meet the financing needs of SMEs. Governments should thus focus on expanding access to bank and non-bank credit.

1. Developing Policies to Encourage SME Lending

Access to finance can be facilitated by expanding bank services in rural areas, where a large number of SMEs are located. For instance, India initiated a program between 1977 and 1990 that mandated that when a commercial bank wanted to open a branch in a primary location where it already had branches, it was required to open four branches in locations where it had no branches.[189] This program was based on the premise that commercial financial service providers needed incentives to move into underserved areas. A later evaluation found that the "1:4 rule" was largely beneficial in providing increased banking presence in rural areas and led to an increase in rural credit.[190] While there were problems related to subsidized interest rates and larger than normal loan losses, the program was perceived as successful in expanding access to finance for SMEs and lowering the rate of poverty in the areas under study.[191] Expanding the physical presence of formal banks has generally been found to increase the use of banking services by the formerly unbanked.[192]

Improving the secured transaction regime can significantly enhance SME finance options by reducing the risk for lenders.[193] SMEs typically do not have the types of assets that most readily serve as adequate collateral: immovable assets. To help facilitate SME growth, a secured transaction regime that can accommodate a broader range of assets is re-

189. THE WORLD BANK, *supra* note 175, at 108.

190. *Id*. at 164.

191. *Id.*

192. *Id*.

193. U.N. Comm'n on Int'l Trade Law, UNCITRAL Legislative Guide on Secured Transactions 1 (2007), *available at* http://www.uncitral.org/pdf/english/texts/security-lg/e/09-82670_Ebook-Guide_09-04-10English.pdf.

quired.[194] Expanding the range of acceptable collateral has been correlated with enhanced economic growth and stability.[195]

SMEs' access to finance can also be greatly increased through the expansion and utilization of leasing and factoring (the discount purchasing of account receivables).[196] Factoring depends on the financial condition of the obligor, not the SME. It generates credit from the SME's normal business operations rather than from the credit worthiness of the SME. Reverse factoring is particularly well suited where contract law is weak and credit information is unavailable or inaccurate.[197] Leasing is also highly advantageous to SMEs in that it secures credit by giving the financier ownership of the leased equipment. While various types of leasing and factoring strategies are employed in advanced nations, they are still greatly underutilized in developing economies.[198] This is due primarily to weaker legal and regulatory regimes in developing countries.[199] SMEs in the developing world will thus benefit greatly from programs that strengthen their nation's legal and regulatory regimes and introduce effective secured transaction regimes.

Finally, there is a bias within the traditional banking sector that makes it more difficult for SMEs to secure loans.[200] The banking industry often perceives SMEs to be unstable, particularly in developing economies.[201] This perception can be exacerbated by a lack of sound financial information about the loan applicant and by the fact that small transactions are generally more expensive to service for banking institutions.[202] For SMEs to flourish, a change in how they are perceived by the banking industry is required. The state may need to incentivize lenders (as the Indian government did in the above example) to encourage them to offer their financial services to a wider market. SMEs can, with assistance, become valuable bank customers.

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194. Alejandro Alvarez de la Campa, *Increasing Access to Credit Through Reforming Secured Transactions in the MENA Region* (World Bank, Policy Research Working Paper No. 5613, 2011), *available at* http://elibrary.worldbank.org/content/workingpaper/10.1596/1813-9450-5613.

195. Simeon Djankov et al., *Private Credit in 129 Countries* (Nat'l Bureau of Econ. Research, Working Paper No. 11078, 2005), *available at* http://www.nber.org/papers/w11078.

196. Leora Klapper, *The Role of Factoring for Financing Small and Medium Enterprises*, 30 J. BANKING & FIN. 3111 (2006).

197. *Id*.

198. *Id*.

199. *Id*.

200. Chauffour & Malouche, *supra* note 97, at 5; AUGUSTO DE LA TORRE ET AL., THE WORLD BANK, HOW DO BANKS SERVE SMES? BUSINESS AND RISK MANAGEMENT MODELS (2008), *available at* https://open knowledge.worldbank.org/handle/10986/12959.

201. *Id*.

202. INT'L FIN. CORP., THE SME BANKING KNOWLEDGE GUIDE (2010), *available at* http://www.ifc.org/wps/wcm/connect/b4f9be0049585ff9a192b519583b6d16/SMEE.pdf?MOD=AJPERES.

2. Allowing SMEs Access to Public Trading Markets

Another way to increase SME access to finance is by giving them access to capital markets. An important first step towards improving SMEs' access to capital markets would be decreasing the fees associated with going public. Simplified listing and disclosure requirements for SMEs would also allow for increased participation.

To expand access to finance for SMEs, some jurisdictions have created SME stock exchanges—separate trading platforms that cater to the specific needs of SMEs.[203] These dedicated stock exchanges, or "junior markets," have significantly less stringent eligibility requirements and considerably lower costs during the IPO underwriting process.[204] The success of these initiatives overall has been mixed. The performance of these markets in developing economies, for example, has not been strong, with many offerings in lower-income countries being unable to attract financial support.[205] In many of these economies, the general population does not have the capital to support IPOs. Institutional buyers within these same environments are unlikely to be participants, as very few SMEs will meet their investment grade criteria. Thus, few SMEs succeed in capital market raisings.[206]

The results of such initiatives in middle-income and high-income countries, however, have been better. MESDAQ in Malaysia, London's Alternative Investment Market (AIM), and the MOTHERS market in Japan have been consistently successful in bringing small cap SMEs to market.[207] Such SME exchanges tend to succeed if (1) there is a sufficiently sophisticated primary market from which the SME market may draw expertise, and (2) the general market has a track record of supporting IPOs, thus suggesting investors who are qualified and economically able to support SME fundraising.[208] These factors remain a major challenge in developing economies.

Access to finance is perhaps the largest single barrier to SME growth.[209] While there are many other hurdles SMEs face, most challenges revolve around and come back to resolving the dilemma of financing. Government intervention, regulatory policy, and improvements

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203. INT'L FIN. CORP., *supra* note 178, at 44.

204. *Id*.

205. *Id*.

206. *Id*.

207. *Id*.

208. *Id*.

209. Claire Fargeot, *How the Investment Industry Can Facilitate SME Access to Finance in Europe*, CFA INST. (Feb. 22, 2013), http://blogs.cfainstitute.org/marketintegrity/2013/02/22/how-the-investment-industry-can-facilitate-sme-access-to-finance-in-europe/.

in the legal and financial infrastructure are all needed to foster an environment that promotes financing options for SMEs.

VII. NON-BANK FINANCE

As noted in the previous section, non-bank finance provides a very important alternative to bank financing in supporting East Asia's future development, particularly in the context of the limitations of existing banking systems. At the same time, the supply of credit by non-bank financial institutions is an area where Asian financial regulators will need to exercise vigilance. They will need to ensure that the positive impacts of their regulation exceed the risks of weakening the domestic financial sector.

A. Growth and Development of Non-Bank Finance in East Asia

Global non-bank finance—often referred to as "shadow banking"—grew rapidly before the latest financial crisis.[210] Rising from US$26 trillion in 2002 to US$62 trillion in 2007, the value of transactions conducted in the shadow banking sector represented about 90% of global GDP by 2007.[211] The global value of transactions conducted by non-bank financial institutions (NBFIs) declined slightly with the onset of the global financial crisis in 2008 but increased subsequently to reach US$67 trillion in 2011 (or about 110% of GDP in the countries monitored by the FSB).[212] Shadow banking transactions represent about half of the value of assets in the banking sectors of the countries providing information to the FSB exercise.[213]

The amount of finance NBFIs provide differs markedly across Asian countries. Figure 8 shows NBFI assets as a share of total financial assets in six Asian countries.[214] In Hong Kong, Singapore, and Korea, NBFIs play an important role in intermediating the flow of investment and savings. NBFIs in Indonesia and China play a small role, with their share of total assets remaining below 10%. Indian NBFIs have increased the proportion of assets they manage from about 7% in 2002 to a high of about 15% in 2008.[215]

210. FIN. STABILITY BD., GLOBAL SHADOW BANKING MONITORING REPORT 2012, at 3 (2012), *available at* http://www.financialstabilityboard.org/publications/r_121118c.pdf.

211. *Id.* (share of GDP comes from authors based on nominal GDP in 2007 as reported by the World Bank).

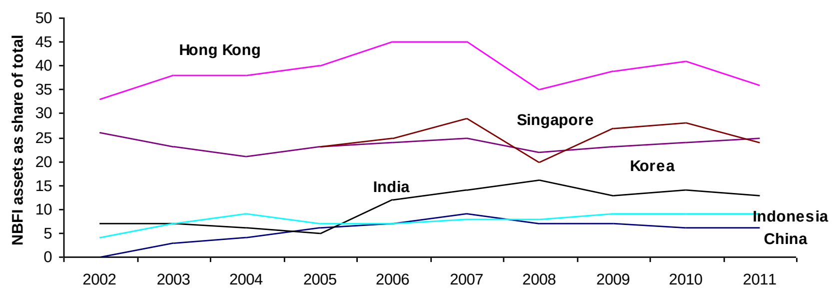
212. *Id*.

213. *Id*.

214. *Id.* at Annex 2.

215. We do not report assets managed by specific types of NBFIs—such as insurance companies or finance companies. Such data would not necessarily provide an y additional insight into our thesis that Asian policymakers need to balance pro-development financial policies with managing

Figure 8: Non-Bank Financial Institutions' Share of Total Assets Varies Across Asia



Source: FSB (2012).

Non-bank finance appears to have played an important role in promoting growth in high-growth jurisdictions such as Hong Kong, Singapore, and Korea.[216] Other Asian countries' NBFI assets represent a relatively negligible share of GDP.

B. Opportunities and Risks Posed by Shadow Banking

The growth of NBFI transactions provides opportunities for Asian countries' economic development. Shadow banking has often provided finance that traditional banking institutions are unable or unwilling to provide. Many new business ventures have high levels of risk that banks in many Asian countries have often not felt comfortable servicing.[217] Shadow banking may fill this need—and free up resources—by providing credit extended on a wider range of collateral. [218]

On the other hand, the risks posed by shadow banking arrangements are plentiful.[219] There are many risks related to the supplying of

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the risks of rapid growth in this relatively unregulated sector. We also do not discuss the role of relatively complex financial products (such as credit default swaps and special purpose vehicles) as mechanisms for non-bank financial intermediation. Such a discussion is beyond the scope of this paper.

216. Korean bank assets have hovered at about 200% of GDP—illustrating a broader trend in the larger, developed countries like Japan and Korea that formal banking institutions have succeeded in providing funding to more generally and thus reduced the need for NBFIs.

217. Risk premia charged by Asian banks may vary not only according to the borrower's risk of default but also by the bank's own ability to price such risk. For a further description of this mechanism and data from Asia, see Jane-Raung Lin et al., *The Determinants of Interest Margins and Their Effect on Bank Diversification: Evidence from Asian Banks*, 8 J. FIN. STABILITY 96 (2012).

218. For more on the impacts of NBFIs on labor and other markets, see JEFFREY CARMICHAEL & MICHAEL POMERLEANO, THE DEVELOPMENT AND REGULATION OF NON-BANK FINANCIAL INSTITUTIONS (2002).

219. For a more in-depth discussion of these risks in an easy-to-digest form, see David Luttrell et al., *Understanding the Risks Inherent in Shadow Banking: A Primer and Practical Lessons Learned* (Fed. Reserve Bank of Dallas, Staff Paper No. 18, 2012), *available at* http://www.dallasfed.org/assets/documents/research/staff/staff1203.pdf.

funds to NBFIs. First, depositors may suddenly withdraw their funds. Second, margins may be lower because NBFIs will need to pay higher interest to compensate savers for the risks of placing funds with these under-regulated financial intermediaries. Third, they may face certain types of counterparty and other risks on assets placed with regulated financial institutions, as they may not have the resources to recover funds on demand. As such, NBFIs may be the first to liquidate assets at a discount during periods of economic shocks, further depressing asset prices. Fourth, regulatory changes may affect the supply of funds from traditional banks to NBFIs. Regulators across Asia will apply their own interpretation of the rules promulgated by institutions, like the FSB, about shadow banking in upcoming years. Many of their responses may tend to restrict bank lending to NBFIs (and lending by NBFIs themselves). Such regulatory risk can cause a sudden decrease in liquidity in the shadow banking sector.

Lending by NBFIs may also increase systemic risk in several ways. First, it may push up asset prices throughout the economy, such as in real estate, where prices often depend on the supply of available funds. Second, NBFI lending may lead to widespread maturity duration and other mismatches as NBFI managers may not have the expertise to match the duration of funds received and funds lent. This is especially likely in developing parts of Southeast Asia. Third, macroeconomic changes may cause large classes of NBFI borrowers to disappear. Tightening credit causes interest rates to rise across all types of lending. NBFIs charge higher interest rates, partly to cover their own cost of capital and partly to price in the extra risks of their borrowers. Higher interest rates often correspond to highly elastic demand for funds.

C. Developing Innovative Policy and Regulation Around Shadow Banking

Regulators need to develop regulations that anticipate the aforementioned risks and help mitigate their economic effects. However, regulators in many underdeveloped Asian financial markets have not done so appropriately. India, Indonesia, and Japan provide examples of regulations that have sought to respond (with greater or lesser success) to these benefits and risks.

In India, regulators have started to amend highly restrictive regulations with a view toward developing a range of credit markets, both formal and shadow.[220] However, many of the recent amendments do not

220. *Credit Market*, RESERVE BANK INDIA (May 31, 2007), http://www.rbi.org.in/scripts/PublicationReportDetails.aspx?ID=502.

demonstrate a clear consideration of the risks seeking to be mitigated. In Indonesia, piecemeal law making has scattered laws regulating NBFIs across a range of legislative and regulatory instruments. Lack of a clear focus on the potential risks and benefits has resulted in an abstract Action Plan aimed at consolidating policy across the NBFI sector.[221] As a counterexample, Japanese regulation of NBFIs focuses on explicit outcomes rather than specific measures. This focus has led to the development of a vibrant NBFI sector. Such an approach also reflects the principles the FSB has recently promulgated in relation to regulating shadow banking markets.[222]

Japan's regulatory treatment of the capitalization of these NBFIs shows how Indian regulators could focus more sharply on the gains and losses they seek to manage. Indian regulators have sought to increase capitalization requirements of NBFIs for several years. Currently, Indian legislation requires NBFIs to have a capitalization of at least 2.5 million rupees.[223] Recent recommendations aim (under Section 45NC) to exempt all non-deposit taking NBFIs from registration requirements if their individual asset sizes fall below 500 million rupees.[224] Such a focus on line-in-the-sand capitalization floors ignores the risk Indian regulators should target: the risk of default. As this risk depends on the type of lending, a more flexible approach should be adopted.

Recent proposals in India aim at taking a regulatory approach focused on balancing risks and returns. Previous regulation focused on minimum capitalization in order to obtain a registration certificate. Section 45-IA(4)(d) of the Reserve Bank of India Act (1934) requires the Indian central bank (the RBI) to review an applicant's capital structure before granting registration.[225] The RBI may impose certain discretionary requirements with regard to capitalization and assets under management before registering an applicant (or providing an exemption to registration under section 45NC of the Act). Demonstrating a firm grip on the underlying rationale for such discretionary power, a recent RBI working group on reforming NBFI regulations notes, "The spirit behind such exemptions is not to create entry barriers for small innovative players from en-

221. As we describe below, the Action Plan presents a set of vague policies rather than concrete and specific rules. As such, recent changes to the Indonesian legal framework governing NBFIs remain at the policy level.

222. FIN. STABILITY BD., SHADOW BANKING: STRENGTHENING OVERSIGHT AND REGULATION (2011), *available at* http://www.financialstabilityboard.org/publications/r_111027a.pdf.

223. Section 45-IA of the RBI Act (1934) is reported in RESERVE BANK OF INDIA, WORKING GROUP ON THE ISSUES AND CONCERNS IN THE NBFC SECTOR: REPORT AND RECOMMENDATIONS 18 (2011), *available at* http://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/FRWS250811.pdf.

224. *Id.* at 64 (art. 3.2.i). Other proposals aim at providing certain exemptions from minimum capital requirements if the NBFI does not take funds from the public.

225. *Id.* at 20 (section 45-IA(4)(d)).

tering the NBFC sector especially for lending to small businesses, but to refocus regulatory resources to where the risks may lie."[226] Nevertheless, India's relatively underdeveloped shadow banking sector shows that either not enough entrants have come into the market or they cannot attract enough capital.

Indonesia's regulation also tends to overemphasise risk management at the possible expense of national economic development. While several laws substantially strengthen the regulatory framework governing NBFIs,[227] legislation aimed at regulating Indonesian shadow banking is scattered across a range of different acts and regulations. Many of these laws do not directly regulate the credit-creating capacity of NBFIs. In response, the government has created *The Capital Market and Non Bank Financial Industry Master Plan 2010–2014*, which contains a 63-point Action Plan designed to harmonize these laws.[228]

The Action Plan aims to encourage both "the expansion of finance and guarantee institution networks" and "the development of finance and guarantee products" so as to increase public accessibility.[229] It also seeks to increase "the distribution and quality of information in the NBFI sector."[230] However, the Action Plan is short on concrete details as to how the government intends to achieve these aims. It does not address the underlying risks in the Indonesian economy or the scattering of provisions across different legislative instruments. Indeed, it fails to address any of the fundamental risks facing NBFIs that we discussed at the beginning of this section. There remains a strong need for a coherent institutional framework in Indonesia.

In contrast, Japan has focused on outcomes rather than details. Enshrined in three major pieces of legislation covering usury, the Japanese legislative framework has sought to focus on usurious practices, particularly in the NBFI sector. The Interest Rate Restriction Act (1954) subjected non-bank financial entities—which had hitherto done business

226. *Id.* at 20.

227. Notably the Capital Markets Law (CML), No 8/1995, which replaces the Presidential Decree No. 53/1990 and MOF Decree No. 1548/KMK.013/1990.

228. MINISTRY OF FIN. OF THE REPUBLIC OF INDONESIA, THE CAPITAL MARKET AND NON BANK FINANCIAL INDUSTRY MASTER PLAN 2010–2014, at 149–53 (2010), *available at* http://www.bapepam.go.id/pasar_modal/publikasi_pm/info_pm/MASTERPLAN_BAPEPAMLK_2010-2014_ENG.pdf.

229. *Id.* at 150. We have cited the original objectives from the text, which explains the rather jargon-laden construction of this sentence.

230. *Id. at* 150. We take the wording from the plan (from the second part of point 1.2), which again accounts for the sentence's clumsy wording.

virtually without restriction—to regulatory control[231] and capped interest rates at 15%–20%, depending on the loan amount.[232] Other laws targeted potential risks coming from the NBFI sector by capping interest rates at 20%.[233] By capping interest rates, the law addressed the risks of default coming from the non-payment of excessively high interest. It also moved the focus of regulation from the bank to the borrower and set new net asset requirements to ensure the viability of the lender. These requirements basically made risk management self-enforcing. Instead of requiring banks to engage in complex risk management practices, these legal requirements provided strong economic incentives for banks and borrowers to engage in sustainable lending and borrowing practices.

Regulators in Asia still rely excessively on minimizing risks rather than capturing the development potential of shadow banking. This is particularly so in countries with rapidly developing NBFI sectors, such as China, India, and Indonesia. Recent FSB guidelines, however, encourage regulators to focus on broad principles—mostly aimed at promoting the development of all kinds of finance (including non-bank finance). In FSB's view, regulators should focus on five aspects in rulemaking: focus (target only externalities and risks while avoiding unintentional market deterioration); proportionality (introduce the lightest possible measures and not more); being forward-looking and adaptable (predicting market reactions to things like Basel III); effectiveness (taking into particular account possible cross-border regulatory arbitrage); and assessment and review.[234] Such a results-oriented focus on rulemaking would likely increase the viability of NBFIs in these developing markets.

The issue of shadow banking illustrates our thesis that regulation should strike a balance between the need for flexibility (so as to provide capital for development) and the need to respond rigorously when risks threaten financial sector development. As we explained, jurisdictions with larger shadow banking sectors have generally developed quickly (such as Hong Kong, Singapore, and South Korea). Many of the countries with underdeveloped financial markets have tried to tackle the regulation of shadow banking using an administrative approach. We find that financial regulation in much of developing Asia needs to do a better job

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231. Risoku Seigen Ho [Interest Rate Restriction Law], Law No. 100 of 1954 (Japan), *available at* http://www.asianfinancegroup.com/projects/translation/japanese-legislation/interest-rate-restriction-law (unofficial translated version).

232. *Id.* at art. 1.

233. Such as Kashikingyō no Kisei nado ni Kansuru Hōritsu [The Money Lending Industry Regulation Act], Law No. 32 of 1983 (Japan), *available at* http://law.e-gov.go.jp/htmldata/S58/S58HO032.html (last visited Oct. 5, 2013).

234. The FSB provides eleven recommendations. We do not have the space to provide an assessment of each country's performance in adopting each of these recommendations.

of balancing developmental needs and macroeconomic risks, such as those inherent in rapidly expanding NBFI sectors. Such risks pose a significant threat to the entire domestic financial sector of these economies. In developing markets, like China, Malaysia, India, and others, regulations on NBFIs likely impede the growth of this pro-development financial sector. Regulators may want to promote the NBFI sector in these countries through further—though not unmitigated—financial liberalization. Lastly, the case study of Japan demonstrates how to focus on the objectives of NBFI regulation rather than micro-regulating. Asian countries looking to expand their shadow banking sectors will do well to balance flexible regulations, which allow for such expansion, and rigorous regulation, which prevents systemic and other risks building.

VII. MOBILE FINANCIAL SERVICES

Mobile financial services are provided through mobile phones. A typical transaction involves a customer going to an agent, such as a local shopkeeper, to convert some cash into e-money on their phone. The customer does this by paying cash to the agent and seeing a credit appear on his phone, which is achieved by the agent using his own phone for this purpose. With this e-money, the customer can then pay bills or remit funds to others.

About 1.7 billion people have a mobile phone but no bank account. Mobile phones, therefore, provide a direct conduit to almost one-half of the world's unbanked population. The potential of mobile financial services to assist in the alleviation of poverty and to increase efficiency across an economy has captured the attention of many international financial institutions, including the Asian Development Bank and the Consultative Group to Assist the Poor (CGAP), a World Bank affiliate.

The groundbreaking success story in mobile financial services occurred in Kenya with the launch of M-PESA in 2007. Within three years, nearly 40% of Kenya's adult population used M-PESA.[235] A study of the community impact of M-PESA found that it allowed clients to remit money to family in times of financial distress.[236] It made the conduct of business easier and safer, and it reduced transaction costs for business people.[237] M-PESA's success has prompted policymakers in a range of

235. Mudita Tiwari & Deepti K.C., *Mobile Payment Systems: What Can India Adopt From Kenya's Success?*, CONSULTATIVE GRP. TO ASSIST POOR (CGAP) (Apr. 2, 2013), http://www.cgap.org/blog/mobile-payment-systemswhat-can-india-adopt-kenya%E2%80%99s-success.

236. MEGAN G. PLYLER ET AL., COMMUNITY-LEVEL ECONOMIC EFFECTS OF M-PESA IN KENYA: INITIAL FINDINGS (2012), *available at* http://www.fsassessment.umd.edu/publications/pdfs/Comm unity-Effects-MPESA-Kenya.pdf.

237. *Id*.

nations to seek to emulate it.[238] Mobile financial services are now broadly seen as a way to promote financial inclusion and reduce disadvantage.

The G20 has made financial inclusion a development priority and has established the Global Partnership for Financial Inclusion to implement the G20's multi-year financial inclusion action plan.[239] This is strong evidence of how financial inclusion is gathering broad acceptance as a fundamental development principle.

In East Asia, mobile money is perhaps most advanced in the Philippines. Only two out of ten Filipino households have access to a basic savings account, but 80% of people have access to a mobile phone.[240] The potential of mobile banking to reach a significant portion of the unbanked population in the Philippines is great. The Philippines' experience has shown that enhancing financial inclusion through the provision of mobile money services can support political and financial stability and economic growth. Even the very poor still need to make payments to pay utilities and other bills and to remit money to families. Financial exclusion means that these payments have to be made in cash, either by the payees traveling long distances themselves or entrusting their cash to someone else with all the problems that entails. Either method is tremendously inefficient and time consuming—time that could be used by the poor in earning an income or in other ways improving their lives.

Regulatory reform in the Philippines has opened up the opportunity for telecommunication companies (telcos) to compete with banks to deliver mobile money services. This has been a major factor in reducing the prices of remittances, which is very important given that remittances are a substantial part of the country's economy.[241]

The Philippines has enacted major regulatory changes to promote financial inclusion.[242] The nation does not have a national identification card, so the regulations have liberalized identification requirements to the point of certification of identity from a local chieftain being acceptable in some circumstances.[243] The Philippines has in place a targeted human development program as a core component of its poverty alleviation

238. *Id*.

239. *About GPFI*, GLOBAL P'SHIP FOR FIN. INCLUSION, http://www.gpfi.org/about (last visited Sept. 30, 2013).

240. Jeanette Thomas, *Regulation Spurs Innovation in the Philippines*, CONSULTATIVE GRP. TO ASSIST POOR (CGAP) (Nov. 5, 2012), http://www.cgap.org/blog/regulation-spurs-innovation-philippines.

241. External remittances account for about 10% of Filipino GDP, and internal remittances between workers in urban areas sending money to their family in rural areas are a common feature of life in the Philippines.

242. Thomas, *supra* note 240.

243. *Id*.

strategy.[244] It helps the nation's poorest families through cash assistance, provided they meet certain conditions, such as keeping children in school, attending regular health checkups, and vaccinating their children.[245] Grants were delivered through the banking system as over-the-counter payments, and in some cases, the government had to hire helicopters to physically bring the cash to beneficiaries in remote areas.[246] Effective mobile money programs permit a far more efficient and effective way to distribute these relatively small payments and to accurately track their distribution. Beneficiaries in the past used to spend as much as 30% of their grants on the cost of traveling to collect them, and this does not include the time engaged in travel and queuing to collect the actual grant.[247]

A. Regulatory Challenges of Mobile Banking

Mobile money poses many regulatory challenges. The fact that it is often provided by telcos through a wide array of agents does not sit particularly comfortably with most prudential regulatory agencies. Many important questions exist: Has a customer who has deposited into his phone more than the amount needed to make an initial payment actually made a deposit with the telco of funds, such that the telco needs to be licensed as a bank? What protects the customer against the risk of fraud on the part of the agent or the risk of insolvency on the part of the telco? What "know your customer" rules should apply to telcos operating in remote areas where customers have no formal identification papers? Should these regulatory risks be ameliorated by limiting the provision of e-money services to banks that are appropriately regulated?

What are the roles for banks in e-money services? Should telcos be required to place their net balance on deposit in a trust account with a bank each day so that the funds on trust would survive the insolvency of the telco and be available for distribution to customers? Can the regulator be confident in the event of the insolvency of the telco that the company's records would be in a sufficiently good state to permit return of these funds to their rightful owners?

There are a host of unresolved regulatory issues that different nations are grappling with in different ways. The only clear consensus seems to be that financial inclusion really matters. The provision of very

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244. Chris Bold, *GCASH Supports the Philippine Government's Programs*, CONSULTATIVE GRP. TO ASSIST POOR (CGAP) (Mar. 29, 2011), http://www.cgap.org/blog/gcash-supports-philippine-government's-programs.

245. *Id*.

246. *Id*.

247. *Id*.

basic payments and other financial services to the poor offers them far more than was widely realized only a few years ago. These financial services save time and money, and allow the poor to spend their days working to better their situation—not laboriously effecting transactions that take people with access to a bank account just a few minutes.

India is likewise keen to promote the adoption of mobile financial services because some 40% of its people do not have bank accounts.[248] In addition, the Indian government—like the Filipino government—is implementing targeted human development programs under which specified payments are made to mothers when their children attain certain milestones, such as regularly attending school or health clinics. The biggest challenge India faces today in implementing such a program is the accurate and efficient transfer of funds to the poor. Without bank accounts, or some form of mobile e-money, a large proportion of such payments are lost to corruption or inefficiency. It is therefore ironic that the RBI has done a poor job of promoting mobile financial services. Since 2005, the RBI has recommended that banks increase access for the unbanked population using mobile payment systems.[249] Nonetheless, regulations in India only permit mobile payments when they are linked to a registered bank account through which such transactions must take place.[250]

Accordingly, in one stroke, the RBI has ensured that mobile money does not help the unbanked in their country. The intention of this regulation is to protect customers by subjecting mobile payments to the full panoply of prudential regulation.[251] This is an understandable and worthy regulatory goal, but the price India is paying for it today is far too high. There is a clear need to rethink the regulation of mobile financial services to provide sufficient protection of customers while allowing this new technology to assist all Indians who already have access to a mobile phone but not a bank account.

B. Recommendations Moving Forward

Within the region, the approach of the Philippines should be preferred to that of India. The Philippines has encouraged financial inclusion for its poor and has been very effective in achieving it. India has prioritized the effective regulation of its system and has maintained regulation accordingly, but at a high human cost. In some nations in East

248. Tiwari & K.C., *supra* note 235.

249. *Id*.

250. *Id.*; *see also Mobile Payment in India—Operative Guidelines for Banks*, RESERVE BANK INDIA, http://www.rbi.org.in/Scripts/bs_viewcontent.aspx?Id=1365 (last visited Sept. 30, 2013).

251. Tiwari & K.C., *supra* note 235.

Asia, e-money is not a pressing need. These include the more developed countries such as Japan, Korea, Hong Kong, and Singapore. But in their less-developed neighbors, e-money offers a great deal to the large presently unbanked proportions of their population, and it is recommended that the promotion of financial inclusion be a priority for ASEAN and other regional organizations. A regulatory handbook that identifies the various regulatory challenges and analyzes a range of potential responses to each challenge could most usefully address many of the regulatory challenges identified above.[252] This is an area in which national regulators need assistance now and which the ADB and other like organizations are ideally placed to deliver in a highly efficient way.

IX. CONCLUSION

Financial liberalization has long been associated with economic growth and development. In the past decade, however, financial crises have demonstrated the significant risks posed by financial innovations in the absence of adequate regulation. Such sizable risks mean financial regulation needs to balance risk with innovation in order to maintain financial stability and support economic growth. This was the approach largely adopted in East Asia following the Asian financial crisis, which explains why the major financial centers in the region were much less affected by the global financial crisis than their Western competitors. East Asia's pragmatic, grounded approach to financial regulation is arguably one of the greatest financial innovations of the past decade. It must be maintained in East Asia, and other regions should be encouraged to look to and learn from the successes of many Asian economies in this regard.

We have identified five central areas in which this approach is particularly needed to ensure ongoing financial stability and economic growth in East Asia. These include trade finance, mortgage markets, non-bank finance, SME finance, and mobile financial services. While the region faces a number of challenges in these areas, such challenges can be overcome through carefully regulated financial innovation.

Trade finance in the region is currently suffering from a retreat by European banks and the implementation of the Basel reforms. We have outlined a number of possible solutions that involve collaborative innovations by both the public and private sector. In the area of mortgage

252. The development of such a handbook is the principal goal of a current research project funded by the Centre for International Finance and Regulation in Sydney. *See The Regulation of Mobile Money–E226*, CENTRE INT'L FIN. & REGULATION, http://www.cifr.edu.au/project/The_Regulation_of_Mobile_Money.aspx (last visited Sept. 30, 2013).

markets, an important way forward for East Asia is the enhancement of institutional and legal frameworks that will support the development of a robust mortgage finance market. Regulatory reform must aim to strike a balance between promoting home ownership and preventing inflated real estate bubbles. SMEs and NBFIs play an important role in financial development, yet both face numerous challenges. Regulators need to focus on enhancing the access of SMEs to finance and developing a stable non-bank financial sector to assist development and preserve financial sector stability. Finally, mobile financial services provide the opportunity to assist in the alleviation of poverty and to increase efficiency across many developing economies in Asia. While some challenges exist, with careful regulation, mobile financial services can enhance the lives and productivity of the presently unbanked in the region.

East Asia's balanced approach to financial innovation and regulation needs to be nurtured and applied across the region in all areas of finance, particularly those outlined above. In the wake of the global and Eurozone crises, it should also serve as an important example for other parts of the world. Financial regulation, after all, exists to ensure that financial sectors serve the needs of the real economy, not the needs or desires of bankers.