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What Is the Impact of the Global Financial Crisis on the Banking System in East Asia?

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Abstract

I analyze the risks in the banking systems in East Asia using the standard supervisory framework, which assesses capital adequacy, asset quality, management, earnings, and liquidity (CAMEL), I find that banking systems in the region are sound, but that the short-term outlook is negative. Second, I review the measures introduced in Asian countries to support their banking systems. The main bank support measures—direct capital support, removal and guarantees of bad assets, direct liquidity support, and guarantees for banks' existing or newly issued obligations—might be necessary to ensure stability, but they need to be handled carefully to prevent long-term distortions. It remains to be seen whether Asian policymakers will manage skillfully the lifting of bank support measures. Third, I conduct stress tests of the banking systems. The stress tests indicate that the largest banking systems in East Asia have a total of almost US$1.2 trillion in Tier 1 capital and a possible shortfall of US$758 billion. Fourth, I assess the implications for liquidity of the increase in international banking flows and find that the banking system in the Republic of Korea appears vulnerable to a reversal of capital flows. Fifth, I explore the implications of the crisis for credit formation, assessing whether nonbank financial institutions in the region have the capacity to provide sufficient liquidity. I conclude that they do not. The paper ends with a brief assessment of the impact of the crisis on the corporate sector, concluding that the effects of the crisis are likely to be significant but manageable.

JEL Classification: F37, G15, G2

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1. INTRODUCTION

This paper assesses the condition and outlook of the financial sectors—in particular, the banking sector—in the East Asia region in the aftermath of the current global financial crisis.

First, I analyze risks in the banking systems using the standard supervisory framework, which assesses capital adequacy, asset quality, management, earnings, and liquidity (CAMEL). I find that banking systems in the region are sound, but that the short-term outlook is negative. Second, I review the measures introduced in Asian countries to support the banking systems. As in the United States (US) and Europe, Asian governments have introduced various measures since mid-2008 to support their banking systems. In some cases, they have offered critical fiscal support to stem the slowing of their economies. The main bank support measures—direct capital support, removal and guarantees of bad assets, direct liquidity support, and guarantees for banks' existing or newly issued obligations—might be necessary to ensure stability, but they need to be handled carefully to prevent long-term distortions. It remains to be seen whether Asian policymakers will manage skillfully the lifting of supports. Third, I conduct stress tests of the banking systems. The stress tests indicate that the largest banking systems in East Asia have almost US$1.2 trillion in Tier 1 capital and a possible shortfall of US$758 billion. Fourth, I assess the implication for liquidity of the increase in international banking flows and find that the banking system in the Republic of Korea (hereafter Korea) appears vulnerable to a reversal of capital flows. Fifth, I explore the implications of the crisis for credit formation, assessing whether nonbank financial institutions in the region have the capacity to provide sufficient liquidity. I conclude that they do not. The paper ends with a brief assessment of the impact of the crisis on the corporate sector, concluding that the effects of the crisis are likely to be significant but manageable.

2. CURRENT CONDITION AND OUTLOOK

Table 1, which summarizes Moody's average bank financial strength ratings, is similar to the assessment of the leading credit agencies and investment banks regarding the outlook for the banking system in Asia. The table reflects several downgrades and downward changes in outlook for major banking systems in 2008 and thus far in 2009. Rating agencies expect substantial pressure on loan quality to be the biggest threat for most banks in Asia. For this reason, they indicate that further rating actions will most likely result from credit impairment, lower profitability, and potential capital reduction. It remains to be seen to what extent credit quality will deteriorate across the region as corporate profitability declines and as banking systems dominated by government ownership implement fiscal stimulus plans. Previous slowdowns that led to a decline in asset quality led to higher provisions and lower profits (Box 1).

Table 1: Moody's Average Bank Financial Strength Ratings

Country/Economy	Date	Average Bank Financial Strength Ratings	Outlook
India	Jan. 2009	D+	Negative. A gloomy macro picture warrants a negative credit outlook for the Indian banking system, which will challenge the financial profiles and ratings of Indian banks.
Indonesia	Dec. 2007	D	Stable.
Japan	Dec. 2008	C-	Negative.
People's Republic of China (PRC)	Feb. 2009	D-	Negative.
Korea	Oct. 2008	C-	Negative, primarily due to its dependence on international capital and money markets for funding. Korea's banking measures should help to alleviate pressures.
Philippines	Feb. 2008	D	Stable.
Singapore	May 2008	B	Negative.
Thailand	Sep. 2008	D	Negative.
Hong Kong, China	Dec. 2007	B	Stable.

Source: Moody's Investors Services (2007a, 2007b, 2008a, 2008b, 2008c, 2008d, 2009.)

Box 1: Remembering the Past or Being Condemned to Repeat It? Thailand 1997

> Under the framework of a pegged exchange rate regime, Thailand enjoyed a decade of robust growth, but by late 1996 pressures on the baht emerged. Pressure increased through the first half of 1997 amid an unsustainable current account deficit, a significant appreciation of the real effective exchange rate, rising short-term foreign debt, deteriorating fiscal balances, and increasingly visible financial sector weaknesses, including large exposure to the real estate sector, exchange rate risk, and liquidity risk. Finance companies had disproportionately the largest exposure to the property sector and were the first institutions affected by the economic downturn. Following mounting pressures on the exchange rate and ineffective interventions to alleviate them, the baht was floated on July 2, 1997. In light of weak supportive policies, the baht depreciated 20% against the U.S. dollar in July. By May 2002, the Bank of Thailand had closed 59 financial companies (out of 91) that in total accounted for 13% of financial system assets and 72% of finance company assets. It closed one domestic bank (out of 15) and nationalized four. A publicly owned asset management company held 29.7% of financial system assets as of March 2002. (Laeven and Valencia 2008: 49)

The 1997 crisis in Thailand was costly: nonperforming loans peaked at 33% of total loans, declining to 10.3% of total loans in February 2002; the gross fiscal cost was 43.8% of gross domestic product (GDP); the output loss was 97.7% of GDP; and the minimum real GDP growth rate was -10.5% (Laeven and Valencia 2008).

Other pressure on revenue will come from a number of sources, such as lower volume of trade finance and wealth management sales and less investment banking activity. The possibility of a shrinking capital base might lead to reduced lending and credit contraction. Is this scenario plausible? This paper says that it is, unless policymakers manage the situation very carefully.

What is the current condition of the region's banking systems? The following analysis is based on the standard supervisory framework of banking risks: CAMEL, with the addition of sensitivity to market risk. Using this methodology, ratings are assigned for each component in addition to the overall rating of a bank's financial condition.[1] The key findings for CAMEL are based on data in the Financial Stability Indicators (FSI) of the Global Financial Stability Review (International Monetary Fund [IMF] 2009a).[2]

Capital Adequacy. To be *adequately capitalized* under US federal bank regulatory agency definitions, a bank holding company must have a Tier 1 capital ratio of at least 4%, a combined Tier 1 and Tier 2 capital ratio of at least 8%, and a leverage ratio of at least 4%. To be *well capitalized* per agency definitions, a bank holding company must have a Tier 1 capital ratio of at least 6%, a combined Tier 1 and Tier 2 capital ratio of at least 10%, and a leverage ratio of at least 5%. As shown in Table 2, the banking systems in Asia have capital ratios that can be considered as *well capitalized*. The ratio of bank regulatory capital to risk-weighted assets ranged between 8.2% and 16.8% in 2008. The high ratios in Indonesia (16.8%), Philippines (15.5%), Singapore (14.3%), and Thailand (15.3%) are particularly notable, comparing favorably with Australia (10.9%) and Hong Kong, China (14.3%). In the People's Republic of China (PRC) the ratio made a formidable recovery from 2003 (-5.9%) to 2008 (8.2%).

Table 2: Ratio of Capital to Risk-Weighted Assets, 2003–2008 (in%)

Economy	2003	2004	2005	2006	2007	2008	Latest
Bangladesh	8.4	8.8	7.3	8.3	10.0	9.5	June
PRC	(5.9)	(4.7)	2.5	4.9	8.4	8.2	March
Hong Kong, China	15.3	15.4	14.9	15.2	13.4	14.3	March
India [a]	12.7	12.9	12.8	12.3	12.3	13.0	March
Indonesia	22.3	19.4	19.3	21.3	19.3	16.8	November
Japan [b]	11.1	11.6	12.2	13.1	12.9	12.3	September
Korea	11.1	12.1	13.0	12.8	12.3	10.9	September
Malaysia	13.8	14.4	13.7	13.5	13.2	12.6	December
Philippines [c]	17.4	18.4	17.6	18.1	15.7	15.5	June
Singapore	17.9	16.2	15.8	15.4	13.5	14.3	September
Thailand	13.4	12.4	13.2	13.8	14.8	15.3	December

Note: Due to differences in national accounting, taxation, and supervisory regimes, FSI data are not strictly comparable across countries.

[a] For the end of the fiscal year, that is, March of the calendar year.[b] On a consolidated basis.

[c] For the end of the fiscal year, that is, March of the following calendar year, for major banks.

Sources: IMF 2009a.

The banking systems of Japan and the PRC account for 84% of Tier 1 capital in the region; for this reason, they warrant special attention. There are two distinct concerns with respect to the PRC and Japan: rapid growth of credit in the PRC and the quality of capital in Japan.

In the PRC, the concerns derive from the size and unusual pace of bank lending and the resulting structure of bank loans outstanding so far this year. In the first three months of 2009, the PRC's banks extended yuan4.58 trillion (US$640 billion) in new loans—nearly as much as all new lending for 2008 and equivalent to around 70% of the nation's gross domestic product (GDP) for the quarter. There is considerable concern that the surge in lending could compromise asset quality and add to the financial risks in the system.

[1] The ratings are assigned on a scale from 1 to 5. Banks with ratings of 1 or 2 are considered to present few, if any, supervisory concerns, while banks with ratings of 3, 4, or 5 present moderate to extreme degrees of supervisory concern.

[2] Due to differences in national accounting, taxation, and supervisory regimes, FSI data are not strictly comparable across countries.

In Japan, the concern is that the three biggest financial groups—Mitsubishi UFJ, Sumitomo Mitsui, and Mizuho—are undercapitalized. According to Macquarie Research (2009), the problem is not the quantity but the quality of capital. Macquarie Research's calculations of one broad measure of capital suggest that the banks' capital ratios are low and that a large part of capital comes from sources that either are not permanent or resemble debt rather than equity: half of banks' base of Tier 1 capital relies on unrealized mark-to-market gains in equity holdings (breakeven Nikkei 9,000) and deferred tax assets. Further, the ratio of tangible common equity to tangible assets is 3.6% for Japanese banks, compared with 4.2% for European banks and 4.6% for US banks (i.e., the epicenter of the banking crisis). The financial turmoil abroad has already harmed highly leveraged sectors in Japan, such as real estate investment, as evidenced by the flight of foreign funds, bankruptcies among real estate firms and real estate investment trusts, and the fall in property prices. Therefore, Macquarie Research concludes that, in order to offset projected bad-loan losses and raise Tier 1 ratios to 6 or 8%, Japanese banks will need to mobilize billions of dollars in capital.

Asset Quality. Asset quality has improved markedly in the region (Table 3). For example, in the PRC, nonperforming loans declined from 20.4% in 2003 to 2.5% in 2008. Similarly, in Japan, nonperforming loans declined from 5.2% in 2003 to 1.5% in 2008. Credit rating agencies, however, expect substantial pressure on the quality of loans to be the biggest threat facing most banks in Asia. It remains to be seen to what extent credit growth actually slows across the region, as state-owned banks in systems dominated by government ownership may well play a significant role in implementing fiscal stimulus plans. In countries like the PRC and Viet Nam, banks appear to be advancing substantial volumes of loans to boost their economies. The extent to which governments in East Asia, such as the PRC, are pressing banks to increase their lending to certain sectors could create credit quality problems for the banks at a later date. For example, the stimulus in the PRC has its own risk. The rate of increase for bank loans outstanding for the previous 12 months rose from 14.5% in September 2008 to 18.8% in December 2008 and to 24.2% in February 2009. Rapid growth in credit almost always has been associated with compromises in the quality of loans and might lead to impaired credit in the PRC. At the same time, direct government assistance to banks will ultimately provide support.

Table 3: Bank Nonperforming Loans to Total Loans, 2003–2008 (in %)

Economy	2003	2004	2005	2006	2007	2008	Latest month
Bangladesh	22.1	17.6	13.6	13.2	14.0	13.0	June
PRC	20.4	12.8	9.8	7.5	6.7	2.5	December
Hong Kong, China	3.9	2.3	1.4	1.3	0.9	1.0	September
India	8.8	7.2	5.2	3.3	2.5	2.3	March
Indonesia	6.8	4.5	7.6	6.1	4.1	3.5	November
Japan	5.2	2.9	1.8	1.5	1.5	1.5	September
Korea	2.6	1.9	1.2	0.8	0.7	1.1	December
Malaysia	13.9	11.7	9.6	8.5	6.5	5.1	September
Philippines	16.1	14.4	10.3	7.5	5.8	5.2	June
Singapore	6.7	5.0	3.8	2.8	1.5	1.4	September
Thailand	13.5	11.9	9.1	8.4	7.9	6.5	December

Sources: IMF 2009a.

Adequacy of Reserves. The biggest threat for most banks in Asia is the substantial pressure on the quality of loans as a result of the global crisis. The increase in nonperforming loans might lead to lower profitability, and higher provisioning might lead to considerable erosion in Tier 1 capital, with implications for future lending. In the intermediate term, the problem is not the current level of capital or nonperforming loans, but the buffer needed to sustain future losses through the allowance of loan losses. A desirable ratio of reserves to nonperforming loans is 100%. For example, in the United States only recently, during the crisis, has the ratio dropped below 100%. The allowance for loan losses in the region ranges from adequate to inadequate. As shown in Table 4, coverage ratios are low in

Japan (24.9%) and India (52.6%), prudent in Indonesia (98.5%), Malaysia (86.9%), Philippines (84.1%), and Thailand (86.5%), and very high in Singapore (119.9%) and Korea (155.4%).

Table 4: Coverage Ratios, 2003–2008 (in %)

Economy	2003	2004	2005	2006	2007	2008	Latest
Bangladesh	18.3	18.9	25.3	26.3	42.3	52.5	June
PRC [a]	19.7	14.2	24.8	34.3	39.2	115.3	December
Hong Kong, China	—	—	—	—	—	—	—
India [b]	46.4	56.6	60.3	58.9	56.1	52.6	March
Indonesia [c]	112.4	110.8	68.6	78.3	87.7	98.5	August
Japan [d]	29.9	31.2	28.1	28.8	26.4	24.9	September
Korea	84.0	104.5	131.4	175.2	199.1	155.4	September
Malaysia [e]	53.1	55	59.1	64.6	77.3	86.9	September
Philippines	51.5	58	73.8	75	81.5	84.1	June
Singapore	64.9	73.6	78.7	89.5	115.6	119.9	September
Thailand	72.8	79.8	83.7	82.7	86.5	—	December
Memorandum: other							
Australia	131.8	182.9	203.0	202.5	183.7	87.2	September
Canada	43.5	47.7	49.3	55.3	42.1	34.7	September
United States [f]	140.4	168.1	155.0	135.0	93.1	84.7	September

— means not available.

Note: Due to differences in national accounting, taxation, and supervisory regimes, FSI data are not strictly comparable across countries.

a Major commercial banks. Break in 2008; data cover all commercial banks.

b For the end of the fiscal year, that is, March of the calendar year.

c Write-off reserve on earning assets to classified earning assets.

d General, specific, and interest-in-suspense provisions.

e For the end of the fiscal year, that is, March of the following calendar year; coverage of nonperforming loans by provisions for all banks.

f All institutions insured by the Federal Deposit Insurance Corporation (FDIC).

Sources: IMF 2009a.

Earnings. In Japan, banks operate in a highly competitive environment with low profit margins. For example, in Japan, the return on equity was 6.1% in 2007 and 1.5% in 2008 (Table 5). In countries such as the Philippines (9.6% in 2008) and Thailand (7.3% in 2007), banks are invested largely in government debt. The rates of return on assets are similarly modest.

Table 5: Bank Return on Equity, 2003–2008 (in %)

Country	2003	2004	2005	2006	2007	2008	Latest
Bangladesh [a]	9.8	13.0	12.4	14.1	13.8	21.3	June
PRC [b]	—	13.7	15.1	14.8	19.9	—	June
Hong Kong, China [c]	17.8	20.3	19.1	—	—	—	December
India	18.8	20.8	13.3	12.7	13.2	12.5	March
Indonesia	26.6	34.5	26.4	30.2	25.7	26.0	August
Japan [d]	-2.7	4.1	11.3	8.5	6.1	1.5	September
Korea	3.4	15.2	18.4	14.6	14.6	—	December
Malaysia	15.6	16.7	16.7	16.2	19.7	—	December
Philippines	8.5	7.1	8.8	10.6	10.8	9.6	June
Singapore [e]	8.7	11.6	11.2	13.7	12.9	11.9	September
Thailand	10.3	16.8	14.2	8.8	7.3	—	December
Memorandum							
Australia [f]	24.2	16.0	14.7	16.8	18.1	17.0	June
Canada	14.7	16.7	14.9	20.9	16.1	28.9	September
United States [g]	15.0	13.2	12.7	12.3	7.8	3.3	September

Note: Due to differences in national accounting, taxation, and supervisory regimes, FSI data are not strictly comparable across countries.

— means not available.

[a] In early 2008, following the privatization of the state-owned commercial banks, goodwill assets were created for three of these banks equal to their accumulated losses.

[b] 2007 figure is net income to end-of-period equity.

[c] 2005 figure on a domestic consolidation basis; not strictly comparable with previous years.

[d] For the end of the fiscal year, that is, March of the calendar year.

[e] Local banks.

[f] Gross profits until 2003; return on equity after taxes from 2004.

[g] All FDIC-insured institutions.

Sources: IMF 2009a.

Liquidity. The business models of most Asian banks were originally, and continue to be, based on deposits and thus are safer than wholesale funded banks due to a more stable source of funds. Reliance on wholesale funding has only played a significant role among Australian and Korean banks. Therefore, liquidity (loan to deposit ratios) appears to be adequate in most of the region, with the exception of Korea, where the ratio of loans to deposits is high.

Sensitivity to Market Risk. A sixth component—a bank's *s*ensitivity to market risk—was added to CAMEL in 1997, and the acronym was changed to CAMELS. European and US banks had and have considerable exposure to credit and market risk due to the “originate and distribute” model (separation of credit underwriting from credit monitoring) and are now moving to less risky business models. As mentioned, most Asian banks’ business models were less risky to start with. Table 6 provides a snapshot of the risks in the region’s banking systems.

Table 6: Risks in Asian Banking Systems

Country	Capital	Assets	Earning	Liquidity	Other issues
PRC	?	?			Rapid credit growth will lead to NPLs
Hong Kong, China	✓	✓	✓	✓	
India	✓			Dependent on foreign funding	
Indonesia	✓	✓		Loan to deposit ratio: 74.6%	
Japan	Reliance on equities for Tier 1, stress test impact	✓	Low margins, vulnerable		Inadequate reserves
Malaysia	✓	✓	✓	✓	
Philippines	✓	NPLs: 5.7%			
Singapore	✓	✓	✓	✓	
Korea	✓	✓		High loan to deposit ratio (130%); dependent on wholesale and foreign funding	

NPLs = nonperforming loans. ?= due to evolving situation with credit growth it is difficult to ascertain capital adequacy and credit quality.

Source: Author summary.

3. BANK SUPPORT IN THE ASIA-PACIFIC REGION

As in the US and Europe, governments in the Asia and Pacific region have introduced various measures since mid-2008 to support their respective banking systems and—in some cases, even more critically—to limit the slowing of their economies. The announced bank support and fiscal measures by the larger, more developed economies—Australia; PRC; Hong Kong, China; India; Japan; Singapore; Korea; and Taipei, China—vary widely depending on the perceived need for support (given the funding and balance sheet strength of their banks), the exposure of their economy to the global downturn, and the policy stance of the government (interventionist or not). Korea, Australia, Japan, and PRC have so far been the most active. In this section, I review the main bank-support measures introduced by the authorities in different countries (Table 7). The classification system differentiates between direct capital support, removal and guarantees of bad assets, direct liquidity support, and guarantees for banks' existing or newly issued obligations.

Table 7: Main Bank Support Measures

Economy	Potential Direct Capital Support	Removal and Guarantee of Bad Assets	Direct Liquidity Support	Guarantees for Banks' Existing or Newly Issued Obligations	Blanket Deposit Guarantees
Australia				✓	✓
PRC					
Hong Kong, China	✓				✓
India	✓				
Japan	✓	✓			
Malaysia					✓
New Zealand				✓	✓
Singapore					✓
South Korea	✓	✓		✓	
Taipei,China					✓

Source: Author summary.

The most common support instrument to date has been state guarantees for banks' obligations, including deposits and borrowings. Blanket deposit guarantees were introduced in Australia; Hong Kong, China; Malaysia; New Zealand; Singapore; and Taipei, China. Of these, Australia, New Zealand, and Korea stand out in offering to guarantee banks' debt obligations. In addition, there have been numerous cases of central bank liquidity support for the system. Capital injections have so far not been necessary. Korea; Japan; India; and Hong Kong, China, however, have announced their intent to set up capital funds for their banks to tap. The impetus is not so much that the banks have a clear need for such capital at this stage, but rather that the government wants to maintain public confidence in the banks (especially if higher credit costs do begin to erode capital) and to enable banks to continue lending. Similarly, governments have rarely removed problematic assets from banks' balance sheets (such programs exist only in Korea and Japan). Only Korea has guaranteed loans to small- and medium-sized enterprises that are struggling to meet their liquidity needs. It is possible that, as the crisis progresses, some countries will introduce additional measures to make their banking systems more stable and avoid a possible competitive disadvantage compared with other systems.

Other regulatory forbearance measures in the Asia and Pacific region are focused on relaxing prudential regulations designed to increase liquidity, such as lowering the minimum liquidity ratios and minimum deposit reserve requirements. In some jurisdictions, maximum loan-to-value restrictions for mortgages and limits on consumer borrower indebtedness have been lifted to encourage lending. In some instances, accounting standards have been relaxed with regard to the valuation of securities (Japan) and the classification of restructured loans (India). It remains to be seen to what extent further regulatory forbearance will be granted in the region with regard to broader loan classifications, provisioning requirements, and capital ratios.

In this context, it is important to recall that regulatory forbearance is not a new concept. It arose in East Asia during the 1997 crisis and in the US in the early 1980s. In the US, among other measures, deposit insurance ceilings were raised, and capital adequacy requirements were relaxed for thrifts facing insolvency. East Asia adopted various forbearance measures, including blanket guarantees, capital, and nonperforming loan forbearance (IMF 1999). This may have helped banks to survive but, according to an FDIC report, *The Banking Crises of the 1980s and Early 1990s: Summary and Implications* (FDIC 2000: 46–47), it also postponed and amplified the later crisis. Forbearance can work, but it is not a cure-all. The FDIC report contrasts beneficial and harmful forbearance programs, but it criticizes large-scale forbearance programs in no uncertain terms:

> Longer-term, wholesale forbearance as practiced by the FSLIC [Federal Savings and Loan Insurance Corporation] was a high-risk regulatory policy whose main chances of success were that the economic environment for thrifts would improve before their condition deteriorated beyond repair or that the new, riskier investment powers they had been granted would pay off. The latter type of forbearance, which the FSLIC adopted against the background of a depleted insurance fund, is widely judged to have increased the cost of thrift failures.

The early 1990s saw precisely the opposite; the FDIC Improvement Act of 1991, for example, limited regulatory discretion in dealing with struggling institutions.

Blanket Guarantees. East Asia is not alone in using blanket guarantees. We are witnessing the widespread use of guarantees throughout the world. The Royal Bank of Scotland's *Overview on Guarantee Schemes* (Royal Bank of Scotland 2009) provides an informed overview of bank debt guarantee schemes around the globe. Numerous countries have recently established guarantee schemes: Germany (Norddeutsche Landesbank), Korea, United Kingdom, France (Dexia), Canada, Spain, Australia, Austria, Denmark, Finland, Greece, Ireland, Italy, Netherlands, New Zealand, Portugal, and Sweden. However, the lessons from the Asian crisis and the experience of other countries suggest that blanket guarantees can have adverse consequences for financial system stability. While the guarantees introduced in East Asia did bring stability, they also limited the subsequent options for dealing with financial distress and are hard to exit. For instance, as discussed in Box 2, the recent IMF Financial System Stability Assessment of Thailand adressees the difficulties in existing blanket guarantees.

Box 2: IMF findings: Thailand: Financial System Stability Assessment

The soundness of Thailand's financial system has been strengthened since the financial crisis of the late 1990s. Substantial progress has been made in upgrading the regulatory and supervisory system and improving government macroeconomic management. Banks are reporting solid profitability and improved solvency. Private corporations, which are the banks' primary borrowers, have strengthened their balance sheets and reduced leverage.

Notwithstanding these improvements, policymakers face several critical challenges to further enhance the stability and efficiency of the financial system.

From simulated stress-test scenarios, Thailand banks remain vulnerable to a significant slowdown in domestic economic growth, with liquidity risk found to be material for a few banks. These findings underscore the importance of continued close supervisory attention by the Bank of Thailand (BOT), in particular to weak banks in the system.

While Thailand's financial regulatory and supervisory structure generally exhibits a high level of compliance with international standards, measures are needed to strengthen the legal framework.

The effectiveness of the current framework governing banking and securities and the monetary framework would be improved by stronger laws and greater independence of the regulators and the monetary authority. Initiatives to strengthen the supervisory framework for insurance and banking need to be continued, including moving toward the planned risk-based supervision framework. The Anti Money Laundering/Combating the Financing of Terrorism (AML/CFT) framework also needs to be brought in line with international standards. Quick passage of the draft legal reforms would address many of these shortcomings.

Ten years after the crisis, reducing the still high level of distressed assets and transitioning from a blanket guarantee to a more limited deposit insurance system should be priorities. The government should also continue to divest its equity holding in private commercial banks intervened during the crisis and should regulate and supervise government-owned deposit-taking specialized financial institutions (SFIs) in a manner similar to private commercial banks.

Source: IMF (2009:3).

What are the findings in the academic literature? The theoretical literature is unequivocal in associating moral hazard with blanket guarantees and points out that governments limit their policy options by implementing blanket guarantees that extend forbearance. Moreover, the fiscal costs of a crisis are endogenous and increase due to blanket guarantees. Much of the variation in fiscal costs is explained by poor policy measures, such as forbearance, blanket guarantees, and muddling through with half measures. If the underlying problems are ignored, the “silent” crisis rages on and the costs escalate. My empirical research on the topic finds robust statistical evidence that blanket guarantees increase fiscal costs, prolong the duration of a crisis, and extend the loss of GDP. The academic literature favors a stricter response to crisis resolution, finding that accommodative policies, reflected in blanket guarantees and other forms of forbearance, add to the fiscal cost of banking crises but do not accelerate the speed of recovery. The reason why governments continue to use blanket guarantees in crisis after crisis, despite the overwhelming consensus that they entail high contingent costs and create moral hazard problems, is easy to explain. Governments use blanket guarantees to stabilize sizable systemic financial crises in the absence of the institutional and political will or the fiscal flexibility needed to address the problems directly. Policymakers are advised to adopt a program that deals with the underlying problems and to

use blanket government guarantees sparingly. Use of guarantees should be rare and for narrowly targeted objectives, such as new debt issuance as opposed to covering all the outstanding debt. Guarantees should be properly priced and explicitly budgeted, with their costs disclosed.

Removal and Guarantees of Bad Assets. The government bureaucracy has neither the expertise nor the motivation to make decisive decisions on the resolution of troubled assets. For example, during the 1997 Asian crisis, the Korea Asset Management Corporation collected public funds by resolving nonperforming loans of financial institutions and held public sales of assets entrusted to the government agencies. While Korea Asset Management Corporation gained experience over time, progress was slow. In Indonesia, the Indonesian Bank Restructuring Agency did not make satisfactory progress with the disposal of assets following the crisis. Of key importance is the practical difficulty of introducing a new organization with adequate experience. It is not desirable for governments by themselves to remove bad assets and transfer them to publicly owned companies. While the government needs to be actively involved in the resolution process, this process should rely, to whatever extent possible, on market forces rather than on government efforts to establish the right incentives for sound financial behavior. For example, an appropriate mix of penalties and rewards can induce financial institutions to take steps to resolve nonperforming loans, such as by conveying excess nonperforming loans to an asset management company for resolution. Capital adequacy forbearance might be appropriate for a limited time in cases where the deteriorating capital position is attributable to the disposition of nonperforming loans. The design should ensure that several criteria are met. First, the troubled assets should be worked out in the private sector. Second, the proposed approach should secure private equity capital, while providing government working capital. This program should further align the interests of the managers with the interests of the public, since the managers' own money is at risk. Third, the program should create capacity and competition in the private sector to deal with the problem of impaired assets.

Direct Capital Support. The provision of outright capital support from the government without a requirement that banks meet any prior conditions creates considerable moral hazard. There should be several tests for capital support: (i) market-based valuations of capital injections, (ii) links to matching funds from the private sector, and (iii) capital contributions, in the form of a preferred or convertible security, that are made contingent on the recognition of losses.

4. STRESS TESTING OF BANKING SYSTEMS IN THE REGION

Until recently, the international financial community was focused on the financial crisis in the United States. However, the IMF's recent *Global Financial Stability Review* (IMF 2009a) points out that the banking crisis is global. In this context, it is instructive to analyze the condition of the various banking systems in East Asia to get a sense of the capital shortfalls. The analysis uses banking data provided by Bankscope, which raises at least three issues. First, the data are neither as timely (they are for 2007) nor as comprehensive as one would expect. Second, due to differences in national regulatory regimes, as well as accounting and taxation regimes, the data on capital, equity, and nonperforming assets are not strictly comparable across countries. Third, not all of the financial institutions report comprehensive data. Therefore, it took considerable effort to analyze the data. As a result, the findings need to be interpreted with caution; they should be considered indicative, but not conclusive.

The calculations of the projected capital shortfall for the East Asia and Pacific region use conservative assumptions: a leverage ratio of Tier 1 capital to assets of 5%,[3] nonperforming loans of 8% of assets,[4] and 100% coverage ratio of reserves to nonperforming loans (Table 8). The findings are as follows: the stress tests suggest that the majority of the banking systems are able to absorb a shock, but will require more capital to do so. The largest banking systems in East Asia, however, have almost US$1.2 trillion in Tier 1 capital, and the prospective capital shortfall could be as high as US$758 billion. The largest estimated Tier 1 shortfalls are as follows: Korea (US$44.5 billion), the PRC (US$109.1 billion), and Japan (US$518.8 billion). A surprising finding is that the Philippines and Thailand would not require additional capital.

Table 8: Tier 1 Capital and Shortfall (in US$ billions)

Country/ Economy	Tier 1	Shortfall
PRC	345	-109
Hong Kong, China	53	-30
Indonesia	12	-5
Japan	563	-519
Korea	75	-44
Malaysia	24	-3
New Zealand	11	-14
Philippines	8	2
Singapore	30	-5
Taipei,China	44	-37
Thailand	23	4
Total	**1,189**	**-758**

Source: Author's calculations from Bankscope.

5. INTERNATIONALIZATION OF BANKING: THE ECONOMIC BENEFITS AND RISKS

Driven by telecommunication advances, easing of regulatory barriers, and global economic integration, foreign banks have dramatically increased their cross-border lending to, and investment in, developing countries. The presence of foreign banks today constitutes an important structural feature of the banking industry in many developing countries. Foreign ownership varies considerably. For instance, in Latin America, large economies such as Peru and Mexico have a foreign presence accounting for 95 and 82%, respectively, of the banking system. However, foreign ownership of the banking sector is substantially higher in Europe and Central Asia, Sub-Saharan Africa, and Latin America than in East and South Asia. As Table 9 indicates, the participation of foreign banks in East Asia is extensive only in Indonesia.

[3] To be "well-capitalized" under US federal bank regulatory agency definitions, a bank holding company must have a leverage ratio of at least 5%.

[4] According to Laeven and Valencia (2008) the share of NPLs at the peak of the 1997 East Asia crisis was 32.5% in Indonesia, 35% in Korea, 30% Malaysia, 20% in the Philippines, and 33% in Thailand. According to reports of the Board of Governors of the U.S. Federal Reserve System, the delinquency rate for business and real estate loans reached 7% and 6%, respectively, in 1991 at all commercial U.S. banks. Therefore, an 8% nonperforming ratio is conservative.

Table 9: Share of Banking Assets Held by Foreign Banks with Majority Foreign Ownership, 2006

Country	% held by foreign banks
PRC	0
India	0
Indonesia	28
Kazakhstan	24
Malaysia	16
Pakistan	23
Philippines	1
Thailand	5
Viet Nam	0

Source: World Bank (2008).

As the recent crisis has demonstrated, foreign participation can bring benefits as well as risks. Developing countries have reaped substantial gains through the increased availability of finance to credit-constrained firms and households, the provision of sophisticated financial services, and incentives for improved efficiency as domestic banks have had to compete with foreign entrants. However, international banks can also transmit adverse financial shocks around the globe: major banks can sharply reduce credit to developing countries due to illiquid interbank markets, tightening credit standards, or pressure on the capital base. In addition, the ability of foreign-owned banks to raise funding from their parent banks abroad can fuel a domestic credit boom, potentially offsetting efforts by central banks to contain inflationary pressures or restrict capital inflows.

There is evidence that banking flows are increasing (Table 10). Again, cross-border capital flows can bring capital to countries, but also can exacerbate liquidity risks. Cross-border banking flows have several implications for financial stability. The banking systems in several emerging markets have become more dependent on foreign banks and wholesale foreign funding. This has sometimes involved borrowing by affiliates of foreign banks from their parents (for example, in Korea). In other cases, borrowing in wholesale markets in the major financial centers has financed foreign currency lending to residents (for example, in Eastern Europe).

Table 10: External Loans and Deposits of Banks in All Currencies, 1995–2008 (in billions of US$)

Indicator	Dec. 1995	Dec. 2000	Dec. 2005	Dec. 2006	Dec. 2007	Sep. 2008
Assets						
All economies	7,139	8,318	15,202	18,993	24,558	24,567
Taipei,China	—	43	50	57	70	89
Hong Kong, China	655	391	365	435	589	591
India	—	—	16	24	25	20
Japan	895	720	638	628	889	995
Malaysia	—	—	—	—	31	21
Singapore	420	357	516	572	741	766
Korea	—	—	49	53	68	80
Liabilities						
All economies	7,467	9,455	17,213	21,305	27,140	26,661
Taipei,China	—	26	54	63	80	100
Hong Kong, China	620	318	289	333	448	468
India	—	—	49	55	65	62
Japan	732	556	697	658	687	735
Malaysia	—	—	—	—	31	40
Singapore	413	375	489	533	710	743
Korea	—	—	53	97	137	159
Net position						
All economies	(328)	(1,137)	(2,011)	(2,311)	(2,582)	(2,095)
Taipei,China	—	17	(4)	(6)	(10)	(11)
Hong Kong, China	35	73	76	102	141	124
India	—	—	(33)	(32)	(40)	(42)
Japan	163	163	(59)	(31)	202	260
Malaysia	—	—	—	—	0	(19)
Singapore	7	(18)	27	39	31	24
Korea	—	—	(4)	(44)	(70)	(79)

— means not available.

Source: BIS international financial statistics, external loans and deposits of banks in individual reporting countries. http://www.bis.org/statistics/bankstats.htm

The liquidity risks of such dependence were demonstrated when the markets became dysfunctional in September and October 2008. It is too early to assess the impact on Asia, although countries particularly active in international interbank markets, such as PRC, India, Kazakhstan, and Korea, need to be concerned about the possibility that their domestic banks will face funding difficulties in international markets, should liquidity pressures in interbank markets remain at elevated levels. Equally, the current weakness in the balance sheets of international banks will adversely affect major borrowers in developing countries. It is beyond the scope of this article to recommend policy measures for addressing the presence of foreign banks, but the changes in the nature and character of international credit intermediation are likely to endure, and emerging markets need to explore policies to address the presence of foreign banks in domestic markets. The process, however, needs to be managed carefully because the presence of international banks also presents potential risks. Efforts to reap the benefits of foreign bank presence while controlling risks could focus on vetting the soundness of entering banks as well as “ring fencing” them.

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6. THE IMPLICATIONS OF THE NEXT PHASES OF THE CRISIS

The Prospects of the Financial Sector. The IMF's *Regional Economic Outlook: Asia and Pacific* (IMF 2009b) argues that the risk of corporate defaults is unusually high, but much lower than that which prevailed during the Asian crisis. Therefore, the report concludes that the impact of the crisis on the corporate and banking sectors is likely to be significant but manageable. It estimates that losses to creditors (excluding shareholders) from defaults in Asia as a whole could amount to about 2% of GDP, while bank losses could amount to about 1.3% of their assets. The main reason the risks are manageable is that the corporate sector entered the crisis in robust health, with low leverage ratios and high profitability. These findings, however, are based on a scenario in which Asia's economy stabilizes and then recovers gradually. In any event, a decisive start is needed to address the banking problems and corporate restructuring.

Credit Slowdown. It is important to realize that the consequences of the crisis will be with us for a long time. For instance, the IMF (2009b) forecasts that the Asian economy as a whole will grow 1.3% this year, a marked decline from previous years. It is also important to

remember what happened in Indonesia, Korea, and Thailand during the crisis in 1997. An IMF study of 40 episodes of financial crisis puts the average fiscal costs associated with resolving financial crises at 16% of GDP (Laeven and Valencia 2008). In Indonesia, for example, the share of nonperforming loans at the peak was 32.5%; the gross fiscal cost of the crisis was 56.8% of GDP; the output loss was 67.9% of GDP; the minimum real GDP growth rate was -13.1%. The initial nonperforming loan recovery effort was weak. While I am not suggesting that a crisis is likely in East Asia, the current global crisis will have consequences for East Asia. In a recent seminal paper, Reinhart and Rogoff (2008: 3) found:

> that the aftermath of severe financial crises share three characteristics. First, asset market collapses are deep and prolonged. Real housing price declines average 35 percent stretched out over six years, while equity price collapses average 55 percent over a downturn of about three and a half years. Second, the aftermath of banking crises is associated with profound declines in output and employment. The unemployment rate climbs an average of 7 percentage points over the down phase of the cycle, which lasts, on average, more than four years. Output falls (from peak to trough) an average of more than 9 percent, although the duration of the downturn, averaging roughly two years, is considerably shorter than the duration of unemployment. Third, the real value of government debt tends to explode, rising an average of 86% in the major post–World War II episodes.

Following on Reinhart and Rogoff's (2008) methodology in examining the impact of crises, I examined the evolution of private sector credit in the aftermath of a crisis along three aspects: the time it took for credit growth to resume, the time it took the nominal value of credit to exceed the level preceding the crisis (based on local currency value), and the time it took the ratio of credit to GDP to recover to the pre-crisis level (Table 11). On average, it took 14.5 quarters or more than three and a half years, for credit to resume growing. In 8 of 15 countries studied, the ratio of credit to GDP never recovered to the pre-crisis level. For example, in the US, it took 60 quarters (15 years) for the ratio of credit to GDP to recover to the level preceding the second quarter of 1990, which was the last quarter of sustainable growth. The result seems to suggest that, if a country suffers a sustainable decline during a crisis period, then nominal credit is going to take many quarters or years to recover to the level prior to the crisis, and the time for the ratio of credit to GDP (depth) to recover will be even longer, if ever. If history is any guide, worldwide credit will not recover anytime soon.

Table 11: Private Sector Credit in the Aftermath of a Crisis

Country	Last Quarter with Positive Credit Growth	Credit to GDP of the Quarter (%)	First Quarter of Sustainable Credit Growth	Number of Quarters	Quarter with Nominal Value of Credit Exceeded Prior Crisis Credit Level (based on local currency value)	Quarter of Credit to GDP Exceeding the Prior Crisis Credit to GDP (%)	Number of Quarters for Credit to GDP to Recover
US	Q2-1990	54.8	Q2-1993	11	Q4-1994	Q2-2005	60
Argentina	Q4-1998	23.9	Q1-2004	20	Q2-2006	Not happened	
Colombia	Q3-1998	142.2	Q2-2001	10	Q3-2002	Q2-2007	34
Hong Kong, China	Q4-1997	649.5	Q4-2003	23	Q1-2008	Not happened	
Indonesia	Q2-2008	297.5	Q1-2000	6	Q3-2005	Not happened	
Japan	Q4-1998	198.9	Q3-2005	26			
Korea	No continuous decline in claim to private sector						
Malaysia	Q4-1997	565.7	Q1-2000	8	Q3-2000	Not happened	
Mexico	Q1-1995	36.2	Q1-1997	7	Q1-1997	Not happened	
Norway	No date for 1987, but the decline was very short, if any						
Philippines	Q2-1998	207.6	Q2-2000	7	Q2-2004	Not happened	
Spain	No continuous decline in claim to private sector						
Thailand	Q4-1997	639.3	Q3-2002	18	Q1-2008	Not happened	
Sweden	Q3-1991	221.7	Q3-1996	19	Q1-1999		
Finland	Q4-1991	371.5	Q2-1997	21	Q1-2002	Not happened	

Source: Author's calculations from The IMF International Financial Statistics.

Are Nonbank Financial Institutions Capable of Picking Up the Slack in Banking?

In a now famous speech, "Lessons from the Global Crises," Alan Greenspan (Greenspan 1999) said,

> With the benefit of hindsight, we have been endeavoring for nearly two years to distill the critical lessons from the global crises of 1997 and 1998. … Before the crisis broke, there was little reason to question the three decades of phenomenally solid East Asian economic growth, largely financed through the banking system, so long as the rapidly expanding economies and bank credit kept the ratio of nonperforming loans to total bank assets low. The failure to have backup forms of intermediation was of little consequence. The lack of a spare tire is of no concern if you do not get a flat. … East Asia had no spare tires. The United States did in 1990 and again in 1998. Banks, being highly leveraged institutions, have, throughout

their history, periodically fallen into crisis. Where there was no backup, they pulled their economies down with them.

Banks are a major source of debt finance, but relying solely on bank loans is neither sufficient nor desirable for meeting long-term financing. Equity and debt markets also need to provide long-term finance. In this context, it is instructional to review the capacity of the nonbank financial institutions to pick up the slack in the banking system. This section reviews each major segment of East Asia's nonbank financial institution sector—notably, the supply side (equity and bond markets) and the demand side (mutual funds, pension funds, and insurance companies)—to assess the state of the segment, the role it plays, and its capacity to supply credit. The conclusions are that only Korea has a vibrant nonbank financial institution sector, with adequate demand and supply. Only Malaysia and Thailand have a mutual fund industry with adequate depth.

Supply Side. Private sector-led economic growth requires well-functioning equity and corporate bond markets as a source of risk capital to encourage entrepreneurship and provide the corporate sector with an alternative to bank finance. Sound capital markets also reduce the vulnerability of the economy to stresses in the banking sector. With some exceptions, however, the capital markets in East Asia are not a major source of risk capital (Table 12).The equity markets offer limited opportunities to issuers in the domestic market. Investors struggle with limited information and low liquidity in the securities markets.

Table 12: Equity Market, 2007

Economy	Market Capitalization of Listed Companies (% of GDP)	Stocks Traded, Turnover Ratio (%)	Total Number of Listed Domestic Companies
PRC	190	180	1,530
India	155	84	4,887
Indonesia	49	64	383
Japan	102	142	3,844
Korea	116	202	1,767
Malaysia	180	54	1,036
Philippines	72	34	242
Singapore	219	122	472
Thailand	80	64	475
Memorandum:			
United Kingdom	141	270	2,588
US	144	217	5,130

Source: World Federation of Exchanges (WFE), www.world-exchanges.org.

Only Korea demonstrates a sustained ability to mobilize new capital, mobilizing 8.8% in 2007. Other countries in the region—the PRC (1.8%), Indonesia (0.1%), Malaysia (0.6%), and Thailand (3.0%)—do not have the same capacity to mobilize fresh equity capital (Table 13).

Table 13: Ratio of Capital Raised by Equity to Market Capitalization, 2000–2007 (in %)

Country	2000	2001	2002	2003	2004	2005	2006	2007
PRC	4.3	2.9	2.5	2.4	2.9	2.9	2.9	1.8
Indonesia	0.1	0.1	0.1	0.3	0.1	0.1	0.0	0.1
Korea	47.3	41.0	26.3	17.3	10.0	8.1	4.9	8.8
Malaysia	1.4	1.3	2.8	1.2	0.9	0.9	0.2	0.6
Thailand	11.5	5.6	4.6	18.9	10.1	6.7	6.4	3.0

Source: Author's calculations from World Federation of Exchanges.

Demand Side. Institutional investors such as mutual funds, pension funds, and insurance companies are a critical source of demand for bonds.

Despite its recent growth, Asia's mutual fund industry has weak fundamentals and is small compared with regional and global markets (Table 14). Mutual fund assets (as a % of GDP), however, are large in Thailand (21.1%) and in Malaysia (24.7%). In Thailand, there is an evident deepening of the market, from 8.7% in 2000 to 21.1% in 2007. The market in Malaysia also has grown rapidly from 18.4% in 2004 to 24.7% in 2007. While governments in the region have established regulatory structures, the absence of enforcement to protect investors causes problems, such as the mutual funds crisis in Indonesia. Despite extensive rules, disclosure is inadequate in the areas of investment policy and the calculation of net asset value, sales procedures are poor, and the valuation of linked products has no governing rules. Many of the largest mutual funds do not follow international norms of valuation (e.g., Indonesia).

Table 14: Mutual Funds (Ratio of Net Asset Value to GDP), 2000–2007 (in %)

Country	2000	2001	2002	2003	2004	2005	2006	2007
PRC	0.9	0.8	1.0	1.9	2.0	2.6	4.0	—
Korea	—	—	—	—	0.8	1.2	1.4	1.4
Thailand	8.7	9.2	10.2	14.3	12.6	15.6	17.5	21.1
Malaysia	—	—	—	—	18.4	18.9	20.5	24.7
Indonesia	0.4	0.5	2.6	3.5	4.5	1.1	1.6	2.3

— means not available.

Source: Author's calculations from mutual funds associations.

The pension industry in Asia is small (Table 15). Pension assets constitute only 2.3% of GDP in Indonesia and 5.2% in Thailand. Two notable exceptions are Korea and Malaysia, where pension assets constitute 24.4% and 51.2% of GDP, respectively. If governments in the region would make a concerted effort to reform the industry and promote pension funds, then the potential to mobilize domestic resources would be great.

Table 15: Pension Assets (as a % of GDP), 2000–2007 (in %)

Country	2000	2001	2002	2003	2004	2005	2006	2007
PRC	1.2	1.7	2.4	2.6	2.9	3.4	3.9	—
Korea	—	—	—	—	18.1	20.2	22.4	24.4
Thailand	4.1	4.3	4.5	4.9	4.7	4.9	5.0	5.2
Malaysia	—	55.9	55.9	55.7	50.7	50.8	50.7	51.2
Indonesia	—	—	2.3	2.5	2.5	2.3	2.3	2.3

— means not available.

Source: Author's calculations from the Organisation of Economic Co-operation and Development (OECD), Global Pension Statistics.

The insurance sector is small as well (Table 16). Again, the two notable exceptions are Korea, where pension assets are 40.1% of GDP, and Malaysia, where they are 20.9%. In Indonesia, for instance, they are 5.8% of GDP, 10 firms control more than three-quarters of assets, and five life insurers serve 48% of the population. Many small insurers are undercapitalized and likely to withstand losses in the future. For example, in Indonesia more than half of new sales replace business lost during the year, and of the business lost, close to 95% of terminations are due to lapses in payment and surrenders. Indonesia's insurance business does not offer products that consumers want, and Indonesian consumers lack confidence in long-term commitments.

Table 16: Insurance Assets (as a % of GDP), 2000–2007 (in %)

Country	2000	2001	2002	2003	2004	2005	2006	2007
PRC	3.4	4.2	5.4	6.7	7.4	8.3	9.3	11.6
Korea	25.8	27.5	29.0	30.5	32.4	35.0	37.9	40.1
Thailand	4.3	4.8	4.9	5.5	5.7	6.1	6.3	6.7
Malaysia	—	—	19.4	20.6	19.4	19.7	20.2	20.9
Indonesia	—	—	—	4.7	5.2	5.0	5.2	5.8

— means not available.

Source: OECD 2008.

The IMF (2009b) warns that corporate defaults are likely to increase in emerging markets. Emerging economies have US$1.8 trillion in corporate debt that must be rolled over in 2009, and the threat of defaults is rising to "dangerous levels." According to the IMF report, "Dealing with corporate bankruptcies will be a major challenge in the advanced economies, but an even greater threat lies in the corporate sector in emerging economies." (IMF 2009b) Not only has the global financial crisis constrained bank lending, but these countries have been hurt by hedge funds and other investors who have pulled money out of emerging markets, either to lower their own exposure to risk or to raise cash to meet redemption requests. While Asia has been less reliant on external financing than some other regions, reversals are evident in countries such as Korea. Similarly, the IMF (2009b) points out considerable corporate risks arising from the global financial crisis, although the impact on corporate sector finances in Asia is not known. The data in the available databases, such as Worldscope or Amadeus, are not timely enough to assess the impact on the corporate sector. However, many countries in the region, such as Korea and Malaysia, undertook significant corporate financial restructuring after the 1997 crisis. In Korea, Malaysia, and Thailand, based on the financial indicators, the corporate sectors are robust. There has been a marked transformation in financial practices in East Asia. These sounder corporate financial practices bode well for financial stability.

In this context, it is important to remember the past in order not to be condemned to repeat it. Amid all the discussion today about fragility in the global banking sectors, few are discussing the role that corporate restructuring must play in restoring health to both the real economy and the financial sector. Yet this is one of the key lessons that should have been learned from the record of earlier crises over the last couple of decades. It should come as no surprise that, during recessions, the declines in output and corporate profitability will likely spread, leading to corporate distress and possible insolvencies. The banking sector is a mirror image of the corporate sector, and the quality of assets in the banking system can not be better than the quality of liabilities in the corporate sector. To the extent that the corporate sector is fragile—i.e., overleveraged and unprofitable—the assets of the banking sector are poor. Therefore, corporate distress is both a symptom as well as a cause of economic weakness. There is a risk that the recent recapitalization of the banking sector will fail to achieve its intended objectives, because none of the measures addresses the depth of corporate distress.

For example, corporate financial fragility preceded the Asian financial crisis. There is no easy remedy to cure systemic corporate distress. Coping with it requires a host of simultaneous measures, such as financial engineering techniques (massive debt/equity swaps and loan haircuts), tax incentives for restructuring, policy approaches to the disposal of bad debts (such as the creation of "good bank/bad bank" structures), effective bankruptcy courts, and the establishment of procedures for out-of-court workouts. In particular, countries need to gear up for large-scale corporate restructuring under a government-sponsored or industry-sponsored out-of-court process—the so-called London approach.[5]

[5] The London Approach sets specific rules for collective action in order to limit deadlocks in the restructuring process. The United Kingdom entered a recession during the mid-1970s, with the banks having little experience in organizing internal workout units and dealing effectively with debtors short of formal action. The

During the Asian crisis, government interventions in corporate restructuring were very effective in restoring the corporate sector to stability in the aftermath of a crisis. For example, Korea's enforcement of benchmarks for corporate deleveraging stipulated that banks could not lend to corporations that did not meet these targets or to government agencies that purchased nonperforming loans, which thereby became creditors of bankrupt companies and perforce involved in their restructuring. In this context, the government strategy for dealing with corporate restructuring is critical to the prospects for the recovery from a systemic crisis. Similarly, Malaysia's demonstrated success during the Asian crisis is a good model to follow for tackling corporate and bank restructuring in unison. The National Economic Action Council in Malaysia, created in January 1998 as a high-level consultative body (including the Prime Minister and Governor of the Central Bank), formulated an agenda for comprehensive restructuring of the banking and corporate sectors. Three agencies—Danaharta, Danamodal Nasional Berhad (Danamodal), and the Corporate Debt Restructuring Committee (CDRC)—were established with these planned roles: Danaharta was established as an asset management company with functions similar to those of the US Resolution Trust Corporation; Danamodal was established to recapitalize the banking sector, especially to assist banks whose capital base had been eroded by losses; and the CDRC was established to reduce stress on the banking system and to repair the financial and operational positions of corporate borrowers. These three agencies linked their efforts effectively. A bank in trouble because of a huge amount of bad loans on its books could ask Danaharta to sell its nonperforming loans. Thereafter, if the bank was still in financial trouble and the shareholders could not recapitalize, the bank could seek financial assistance from Danamodal, in return for a stake in the company. Effectively, new money would be injected into the bank, diluting the original shareholders. This meant that Danamodal could facilitate consolidation of the sector by selling its stake to a stronger bank and thereby fostering mergers. Meanwhile, CDRC acted as an informal mediator, facilitating dialogue between borrowers and their creditors to achieve voluntary restructuring schemes. If CDRC could achieve this, then nonperforming loans would be resolved voluntarily. If not, Danaharta would take over the bad loans.

Unfortunately, in several countries, including Indonesia, Malaysia, and Thailand, the entire corporate restructuring infrastructure was dismantled after the crisis. It might be desirable to consider this experience going forward.

7. CONCLUSIONS

Asia has entered the global crisis in good economic and financial shape. The banking system is sound, corporations are far more robust than in other regions, and government finances are solid. This, coupled with generally high reserves, makes Asia financially well-positioned to recover quickly. It is reasonable to conclude that, in the long run, Asia will continue to be the fastest-growing region in the global economy.

Nevertheless, the short-term outlook of the Asian banking systems is negative. Over the next 12–18 months, banks will face traditional credit risks from the economic downturn, resulting in an increase in nonperforming loans, provisions, a decline in earnings, and losses. In this context, current allowances for loan losses and Tier 1 capital levels are not adequate to deal with the prospective credit problems. The region's banking systems are well advised to raise additional funding to offset bad-loan losses and raise Tier 1 ratios. Surprisingly, some low-income countries—in particular, the Philippines and Thailand—and their banks are better able to cope with the stress than many higher-income countries.

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insolvency legislation was out of date and not suited to achieving constructive resolutions. Against this backdrop, the Bank of England chose to play an interventionist role, largely through suasion, by bringing together both the debtor and its banks and brokering a restructuring of the lending arrangement.

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