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6 March 2010

Deepening the Financial System [1]

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Abstract

The global financial crisis presents new challenges to Asian economies in terms of stabilizing financial systems against internal and external shocks and deepening the financial system to play a greater role in financing investment and consumption in Asia. Financial reform at the national and regional level can contribute materially to achieving both of these goals. Section 2 considers how much progress has been made since the Asian crises so that we can make judgements both about the plausible pace of change in the future and the areas over which agreement and progress are likely to be made. Sections 3 and 4 review what can be done to improve the ability to avoid shocks turning into crises before moving on to consider what can be done to improve the management of any crises that do occur so that the losses involved can be minimized and the countries swiftly returned to healthy economic growth. Key recommendations include: developing a framework for macroprudential surveillance and regulation with adequate enforcement tools and mandates; reducing the procyclicality of capital adequacy, capital buffers and accounting rules; and developing surveillance and resolution capacity for all systemically important financial institutions. Section 5 examines ways to deepen regional bond markets, which can contribute both to increasing the ability to absorb shocks and to increasing the capacity to finance regional investment and consumption. Section 6 considers issues related to financing of small and medium sized enterprises, which are a critical but financially vulnerable sector in most Asian economies. Section 7 offers some conclusions and recommendations for action.

[1] This paper is based partly on studies presented at the ADBI Conference: Global Financial and Economic Crisis: Financial Sector Reform and Regulation, held on 21-22 July 2009 in Tokyo, Japan.
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Deepening the Financial System[3]

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1 INTRODUCTION

Although the Asian countries have done a great deal to improve their resilience to financial shocks and have come through the present crisis relatively well as a result of their unpleasant experiences just over a decade ago in the Asian financial crises they have not in general been severely tested. On the previous occasion many countries experienced foreign exchange as well as banking crises. This time round Asian countries in general have both greater reserves and more flexible regimes so they can absorb shocks more readily. Nevertheless, the economic consequences of the crisis have been severe, especially in countries such the Republic of Korea and Japan that are significant exporters of investment and durable consumer goods. However, the Asian countries have been fortunate, as other countries, which thought they had excellent crisis management systems, have found themselves in severe difficulty. As a consequence, lessons from others' experience can be learnt without having to endure the shock directly. The problems in the recent global crisis have provided new challenges and have advanced the benchmark for international best practice as a result. This chapter reflects on those new lessons and how they might best be implemented in Asia.

The present crisis has its immediate origin in the market for high risk borrowers in the United States (mainly sub-prime mortgages). However, that does not explain why a global crisis has emerged. While losses in that sector as a result of the economic downturn have been large, they would have been manageable on their own and the problems would have been largely confined to the United States, leading probably to a slowing of the growth of world trade and hence GDP but not a disaster.

The crisis has revealed a comprehensive set of failures in the financial system and its regulation and supervision: - insufficient capital, poor risk management, inadequate liquidity, overleverage and an inability to recognise system-wide problems, such as asset price bubbles, and act early. New products were inadequately understood by

[3] We are grateful for the comments of Andrew Sheng, Stephen Grenville and discussants and participants at presentations of the paper at ADBI in Tokyo.

regulators and financial firms alike and were hence poorly priced and incentive structures for monitoring were not merely weak but in some cases perverse. Worse still the capital regulations, with their emphasis on ratings, turned out to be more procyclical than expected and the financial system magnified the shock rather than absorbing it as was intended.

In reflecting on what the Asian countries should learn from this experience and the actions they should take it is worth noting continuing success in economic growth without a string of financial failures led to hubris, overconfidence among both market participants and supervisory authorities. In many respects the problems were not new, simply manifested in a different manner. Garcia (2010) points out that the Material Loss Reviews that have been undertaken thus far in the US of the cases where the deposit insurance system has been exposed to significant loss have revealed that insurers and management alike did not act on well-known signals: weak management, excessive risk-taking, over-concentration in real restate assets, deceptive accounting and reporting, volatile sources of short-term financing for long-term assets. Indeed a major characterization of the crisis is that by individual and system-wide danger signals were explained away and the incipient problems allowed to develop rapidly. While Asia may have largely escaped these concerns thus far, as markets and products develop so these issues are likely to become important. It was not that the Asian countries performed better, simply that their financial systems were not so developed and the experience of 1987/8 made the real and financial sectors and regulators more cautious. Self-insurance made the macroeconomic fundamentals stronger.

Financial reform can contribute materially to reducing the likelihood and impact of future financial shocks, both external and internal, and enhancing the ability of Asian economies to develop sources of domestic demand. We begin in the next section (2) by considering how much progress has been made since the Asian crises so that we can make judgements both about the plausible pace of change in the future and the areas over which agreement and progress are likely to be made. Sections 3 and 4 review what can be done to improve the ability to avoid shocks turning into crises before moving on to consider what can be done to improve the management of any crises that do occur so that the losses involved can be minimized and the countries swiftly returned to healthy economic growth. Section 5 examines ways to deepen regional bond markets, which can contribute both to increasing the ability to absorb shocks and to increasing the capacity to finance regional investment and consumption. Section 6 considers issues related to financing of small and medium sized enterprises, which are a critical but financially vulnerable sector in most Asian economies. Section 7 offers some conclusions and recommendations for action.

2 PROGRESS IN FINANCIAL DEEPENING AND INTEGRATION IN ASIA

The Asian Crisis highlighted several shortcomings in Asian financial markets, most notably the lack of development of domestic bond markets, as well as deficiencies in corporate governance, transparency and financial regulation. Since then there has been considerable development. Asian markets are now reaching levels of development common in other countries with similar income levels. Markets are also more integrated but to nothing like the levels prevailing in Europe. Some of these changes have been the result of important initiatives undertaken to remedy the deficiencies that were found in 1997/8, including the Asian Bond Market Initiative (ABMI) and Asian Bond Funds (ABF). However, the crisis may deter Asian countries from financial development, leading them to reject the helpful facets along with the ideas that have been shown to be mistaken.

The nature and progress of deepening of Asian financial markets during the current decade can be analysed using methodology similar to that of the World Bank's Financial Development and Structure Database. Lee (2008) and Capannelli, Lee and Petri (2009) provide an analysis of financial integration that helps illustrate progress in that respect clearly.

Taking deepening first, progress in Asia can be compared with that in other countries using the indicators provided in Beck and Demirguc-Kunt (2009) for four income levels: high, upper middle, lower middle, and low. Indicators of financial size, efficiency, and internationalization present a clear picture.

Financial Size

The range of indicators of financial size available all suggest steady progress in Asia (Table 1). These indicators are central bank assets, bank deposits, deposit money bank assets, liquid liabilities (cash plus demand deposits and interest-bearing liabilities of banks and other financial institutions), private credit by deposit money banks, stock market capitalization and private bond market capitalization (all as ratio to nominal GDP). Typically, the ratio of central bank assets to GDP falls as income rises, while the other measures all rise. Private bond market capitalization is used because it is highly correlated with income levels, while public bond market capitalization shows almost no correlation with income levels.

Table 1 compares the values for Asia ex Japan in 2000 and 2008 with the median values by income group for 2007 from Beck and Demirguc-Kunt (2009). Data for Asia ex Japan are simple averages of those for the PRC, Hong Kong, China, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taipei,China, Thailand and Viet Nam. All of the indicators except central bank assets rise significantly and monotonically with regard to income level.

The Table shows that Asian countries are, if anything, over-endowed in terms of liquidity and banking sector size, but less so in terms of stock market and private bond market capitalization. Although central bank asset ratios have fallen, as expected, they are still in line with the level of lower middle income countries. In contrast, bank deposits, deposit money assets and liquid liabilities rose significantly over the period, and match, if not exceed, the level for high income countries. This is rather remarkable, given the diversity of financial conditions in Asia. Private credit by deposit money banks is somewhat lower than the high income median, mainly due to low values for India, Indonesia and the Philippines.

Table 1: Measures of Financial Sector Size

	Median ratio by income class 2007				Asia ex Japan*	
Ratio to GDP	**High**	**Upper Middle**	**Lower Middle**	**Low**	**2000**	**2008**
Central bank assets	0.01	0.01	0.04	0.02	0.06	0.03
Bank deposits	0.87	0.43	0.39	0.20	0.92	1.15
Deposit money bank assets	1.14	0.55	0.31	0.15	0.97	1.06
Liquid liabilities	0.90	0.45	0.43	0.27	1.06	1.35
Private credit by deposit money banks	1.01	0.47	0.31	0.14	0.82	0.84
Stock market capitalization	1.05	0.42	0.30	0.26	1.04	1.11
Private bond market capitalization	0.36	0.16	0.03	0.00	0.16	0.19

Source: Beck and Demirguc-Kunt (2009) and ADBI estimates.
*Simple average

Data on financial markets are mixed. Stock market capitalization is in line with high income countries. It rose from 1.04 times GDP in 2000 to 1.39 times in 2007 but fell back to 1.11 in 2008 largely as a result of the global financial crisis. (Of course, the capitalization of high-income country stock markets fell relative to GDP in 2008 as well.) On the other hand, private bond market capitalization clearly lags behind with a ratio of only 0.19, only slightly above the median for upper middle income countries. Asia is very bank-centric and other aspects of the financial system are lightly developed by comparison.

Table 2 shows the ratio to GDP of the three main categories of private sector liabilities and total private liabilities for individual countries in 1996 and 2008. The pattern has been quite mixed. Substantial increases in total private liabilities have been seen in the PRC, Hong Kong, India, Korea and Vietnam, while large declines have been seen in Indonesia, Japan, Malaysia, the Philippines and Thailand. In most cases, the declines were seen mainly in loans and stock market capitalization, the former primarily reflecting deleveraging after the Asia Crisis.

Table 2: Sources of private sector funding

% of GDP	Private credit by deposit money banks		Stock market capitalization		Private bond market capitalization		Total	
	1996	**2008**	**1996**	**2008**	**1996**	**2008**	**1996**	**2008**
PRC	77.2	101.6	8.7	104.2	2.7	15.5	88.7	221.4
Hong Kong	146.7	138.7	236.9	378.7	11.9	14.4	395.5	531.8
India	21.7	46.7	32.1	100.1	1.1	3.3	54.8	150.1
Indonesia	50.5	23.2	34.7	30.2	1.6	1.6	86.9	54.9
Japan	179.7	99.9	72.8	78.0	45.6	37.1	298.2	215.0
Korea	49.2	100.6	28.7	85.4	38.0	60.0	115.9	246.1
Malaysia	123.6	96.0	262.7	115.5	35.4	41.5	421.7	253.1
Philippines	41.0	21.2	84.3	45.7	0.2	0.9	125.4	57.2
Singapore	90.9	97.3	161.1	146.4	10.6	14.5	262.5	258.2
Taipei,China	121.0	127.7	79.9	141.3	22.4	22.2	223.3	291.2
Thailand	137.1	89.7	66.3	54.6	8.0	16.3	211.3	160.7
Viet Nam	17.1	81.4	--	16.1	--	--	17.1	97.5

Source: CEIC

Financial Efficiency

The measures of financial sector efficiency shown in Table 3 (net interest margin, cost to income ratio, loan to deposit ratio, return on assets and return on equity) are not as closely correlated with income levels as the size measures in Table 1. As before, Table 3 shows the median values for the four income groups in 2007 and the comparable average data for Asia ex Japan in 2001 and 2008. (Data for 2000 are not available.) The first three measures generally rise with income, but there is little or no change in the net interest margin or cost to income ratios after the low income level. The return on assets and equity is actually highest in low income countries. The increased competition and capital deepening that accompanies higher income presumably helps to drive them down.

Table 3: Measures of Financial Sector Efficiency and Integration

	Median ratio by income class 2007				Asia ex Japan*	
	High	Upper Middle	Lower Middle	Low	2001	2008

Net interest margin	0.06	0.06	0.06	0.02	0.03	0.03
Cost to income ratio	0.60	0.58	0.57	0.50	0.62	0.51
Loan to deposit ratio	1.00	0.80	0.85	0.60	0.84	0.75
Return on assets (%)	1.50	1.90	1.60	2.00	0.19	0.87
Return on equity (%)	16.00	15.00	15.00	21.00	4.65	10.74
International bonds/GDP	0.41	0.19	0.07	0.03	0.11	0.11

Source: Beck and Demirguc-Kunt (2009) and Bankscope database.
*Simple average.

Asian performance in this category is decidedly mixed. The net interest margin changed little over the period, and is still close to the low income level. The cost to income ratio and loan to deposit ratio actually fell in 2008, close to or even lower than the low income level. Of course, the latter proved to be a good thing during the financial crisis, because of the consequential low dependence in most countries on wholesale sources of funding. Returns on assets and equity improved markedly between 2001 and 2008, but are still quite low by global levels. The generally low level of financial efficiency points to the need for further financial reform, although it has clearly improved between 2001 and 2008.

Internationalization and Integration

Some authors have also tried to quantify the degree of financial globalization and integration. They include Beck and Demirguc-Kunt (2009), who examined a number of variables in the same framework as for size and efficiency, including the ratios of international debt securities outstanding, net issuance of international debt securities, loans from non-resident banks, and remittances to GDP, and the ratio of offshore deposits to bank deposits. However, only the outstanding level of international debt securities showed a clear and consistent correlation with income levels. As is clear from the bottom line of Table 3, the Asian level was unchanged between 2001 and 2008, only slightly above the average for lower middle income countries, and only one quarter of the level of high income countries.

This assessment of the degree of regional financial integration can be supplemented from other sources. Some measures seem the opposite of what one might expect. Lee (2008) examined the levels of portfolio holdings of Asian countries to determine whether there was a tendency of Asian countries to hold each others financial assets disproportionately. He used the IMF's data from the Coordinated Portfolio Investment Survey (CPIS) Data 2003 and estimated a gravity model of portfolio investment that included regional dummy variables.[4] He found that, after the effect of regional trade integration was accounted for, intra-Asian holdings were lower than the average of what was predicted by the model and even lower if Hong Kong and Singapore are excluded.

Table 4: Intra-regional Portfolio Investment

	Assets		**Liabilities**	
Share of total investment, %	**2001**	**2006**	**2001**	**2006**
Integrating Asia-16	5.6	9.6	10.1	11.1
IA-15 (IA-16 less Japan)	15.0	25.3	13.7	16.8
ASEAN	11.0	10.4	11.8	9.4
ASEAN+3	3.1	3.7	5.9	4.3
East Asian Summit	5.7	7.2	9.1	6.9
EU-15	60.0	61.7	57.1	62.3
MERCOSUR	5.6	4.5	1.0	1.4
NAFTA	16.2	13.9	11.8	12.8

Source: Capannelli, Lee & Petri (2009)

Nonetheless, Asian cross-holdings of financial assets have been rising over time, an indication of increased financial integration, albeit from a relatively low base. Table 4 shows the shares of cross-border holdings of total international portfolio assets and liabilities in major world regions. The IMF Data are from the Coordinated Portfolio Investment Survey. In 2006, the share of financial assets (liabilities) held intraregionally by the 16 Integrating Asia (IA) economies[5] was only 9.6% (11.1%). Excluding Japan, the intraregional share of assets (liabilities) was much higher at 25.3% (16.8%), although this is very much affected by high ratios for Hong Kong and Singapore. Although these ratios are not particularly high, especially when Japan is included, they have increased significantly since 2001. The share of intra-regional assets (liabilities) within Integrating Asia was only 5.6% (10.1%) in 2001, or 15.0% (13.7%) when Japan is excluded. International comparison shows further that, although IA is far from matching the financial integration of the EU — the ratio for intra-EU assets (liabilities) holdings was 61.7% (62.3%) in 2006 — generally, the intraregional shares of international financial assets for Integrating Asia are higher than those in Latin America and comparable to those in NAFTA.

[4] Gravity models assume that the main drivers of flows between countries relate to their economic size and proximity. If after taking these and any other unusual features such as a common language into account a pair shows a larger than expected flow this then indicates some abnormal level of integration.

[5] Integrating Asia-16 includes Brunei Darussalam; Cambodia; People's Republic of China; Hong Kong, China; India; Indonesia; Japan; Republic of Korea; Lao People's Democratic Republic; Malaysia; Myanmar; Philippines; Singapore; Taipei,China; Thailand; and Viet Nam.

Financial soundness and governance measures

Great strides have also been made in improving financial soundness since the Asia Crisis. Table 5 shows that non-performing loans in the region fell dramatically from an unweighted average of 19.4% of total loans in 1998 to only 2.8% in 2008. All countries showed marked improvement. Capital adequacy generally improved as well, as the average capital ratios rose from 10.4% in 1998 to 13.7% in 2008. Especially dramatic improvements were seen in Indonesia, Korea and Malaysia. Of course, much of this improvement could be attributed to the long economic expansion since 2000, but structural improvements played a role as well.

Table 5 Measures of financial stability and governance

	1998	2003	2008
Non-performing loans (% of total)	19.38	9.79	2.77
Capital adequacy ratio	10.38	12.91	13.70
Regulatory Quality	0.53	0.51	0.61
Rule of Law	0.51	0.40	0.49

Source: CEIC, Bankscope, World Bank。

Qualitative measures of governance and regulatory efficiency have shown much more muted signs of progress. For example, the World Bank's index on Regulatory Quality from its survey of World Governance Indicators has improved only modestly since 1998 on average for Asia as a whole. Improvements in some countries were partly offset by worsening in Malaysia and the Phillipines. Similarly the index for Rule of Law has been quite stable over the same period.

3. CRISIS AVOIDANCE

It is not possible to avoid crises altogether and indeed there is likely to be a trade off between reducing the chance of crises and lowering the overall rate of economic growth. Calvo (2009) sets out the conditions under which occasional crises may actually be therapeutic and achieve the structural change that more gentle pressures fail to achieve but this is not something one can achieve deliberately. There thus needs to be a balance between crisis avoidance and crisis management, although the present crisis has led to a general wish to do more in both areas. However, the two areas are related. Crisis management techniques and the structure of the safety net in particular can contribute positively or negatively to the chance of future crises. The great willingness in some countries to avoid bank failures although this has involved substantial use of taxpayers' money, will of itself encourage banks and their stakeholders to take more risks than they might otherwise have done. While Asian countries may have avoided this temptation, their resolve has not been substantially tested on this occasion and banks might well infer that, despite what may have been said in advance, the authorities there may also turn out to be willing to avoid failures. Moral hazard is thus not something that merely operates within borders, it can have an influence across borders as well.

This section deals with six aspects of improving crisis avoidance within individual Asian countries that between them cover all the main areas:

- improving the institutional structure
- improving microprudential monitoring
- expanding macroprudential tools and procedures
- implementing counter-cyclical measures
- extending the range of regulation to other non-banks and product areas
- improving resilience against shocks.

Running through these aspects is the theme that the incentives for market participants and regulators alike must be matched to the goals of stability.

Kawai and Pomerleano (2009) reflect a common reaction to the huge potential costs of the present crisis when they argue that the first principle should be ‘crisis prevention is better than cure’. However, should a crisis break out it is essential ‘to adopt effective policy measures so that the crisis does not magnify or prolong itself’. It is vital to resolve the problem quickly as otherwise the associated economic crisis will cause enduring harm. Taken together, this is a framework for action but normally international cooperation will be required not simply because troubled institutions run across borders but because simply focusing one’s own problems can cause spillovers elsewhere. Indeed, if the entire burden of adjustment falls on those with the financial problems, then the spillover to the less directly affected will be greater.

Box 1: Regulatory issues for the PRC

The PRC launched one of the biggest economic stimulus packages in response to the global financial crisis—estimated officially at around RMB 4 trillion ($550 billion, or about 15% of GDP) over two years. Much of this was implemented via increased bank lending to regional governments and state-owned enterprises (SOEs). As a result, bank lending soared by 32% in 2009, the biggest increase in nearly 20 years. Just over half of the lending was directed at infrastructure projects, followed by leasing business (14%), real estate (11%) and manufacturing. An expansion of bank lending of this magnitude imposes severe strains on the ability of banks to manage risk properly, and on the regulatory authorities to monitor it closely. To be sure, the ratio of non-performing loans to total loans fell steadily to only 1.6% by the end of 2009, but much of this was due to the sharp increase in the denominator. If the economy turns down in the future, there is a risk of a substantial increase in non-performing loans and consequent degradation of the capital adequacy of the banking sector, leading to the need for large-scale injection of public funds to re-capitalize the banking sector. Therefore, although the direct increase in government debt was limited, there has been a huge increase in contingent liabilities, depending on how well the loans are managed.

Much effort has been expended on improving the risk management capacity of the banking sector, but the result of this have not yet been tested. The People's Bank of China and the China Banking Regulatory Commission will be monitoring these loans closely over the next few years, but this will be a mammoth task.

Moreover, now that the economy has begun to recover, financial authorities need to take timely measures to cool down bank lending growth. Otherwise, inflation could become a significant problem. Private sector demand is also increasing rapidly, with mortgage loans posting growth of over 40% y/y in December 2009. The People's Bank of China has already recognized this, and has begun to implement tightening measures such as raising interest rates and the reserve ratio. Furthermore, it has tightened restrictions on real estate lending in areas such as Shanghai and Beijing. It is also encouraging steady increases in the NPL coverage rate, the ratio of bank operating profits to NPLs.

Rationalization/unification of Regulatory Structure

In many countries regulatory structure is as much a function of history as it is of a careful allocation of objectives and tasks to individual institutions that ensure not merely that all aspects of the problem are covered (Kawai and Pomerleano, 2009) but that there are no confusing overlaps and that the incentives of all those involved are clearly aligned to the task of preserving financial stability. In the US, the plethora of institutions contributed to the emergence of the financial crisis, yet they were able to handle a large number of problems banks swiftly and smoothly, with no threat to stability, no use of public money and limited losses to the private sector (Wall, 2009). The financial regulatory structures of the major Asian economies are summarized in Appendix 1.

Perhaps the greatest lesson to learn on this occasion is that even with direct experience of problems, countries have been slow to implement change. Sweden, for example, that had developed proposals for handling problem banks in 2000, driven in part by its own crisis in 1992, nevertheless did not implement them until it found that it could not handle distress in one of the very smallest banks in the country in 2006. The major costs relate to the freeing up of wholesale markets and the spport for the very large banks and other financial institutions, all done outside the traditional framework.

Taken together there are six main aspects that have to be covered effectively:

- prudential regulation and supervision of individual financial institutions
- monitoring of systemic risks and action to maintain macro-prudential stability
- means of providing short term liquidity assistance to solvent banks
- means of swiftly handling problems in troubled banks at limited cost to both creditors and society at large
- means of limiting the losses to people who cannot protect themselves
- means of coordinating the activities of the various parties involved to ensure coherence and the avoidance of gaps in the system.

It is accepted that the central bank is the institution that should provide liquidity assistance to the market and to solvent individual institutions but to do that it needs to have adequate information from the supervisory authority about the state of such banks so that it avoids lending to the insolvent. Similarly, it is largely accepted that central banks should be the focus of macro-prudential policy, although there is a lot to be said for a collaborative role involving supervisors as well. Clearly there are several different ways of providing the necessary information, starting with the central bank also being the supervisor, down to separate organizations with a clear duty to exchange information. As Hsu and Liao (2009) point out, this range of solutions is already applied in the case of PRC, Singapore, Hong Kong and Taiwan, with all models appearing to be successful, although they have not been severely tested.

Drawing on a much wider sample of experience among some 84 countries, where the majority, 48, have financial supervision with the central bank, Lamberte (2009) points out that small countries may find it difficult to put together two organizations with sufficient intellectual and political clout to be able to handle the vested interests, particularly where there are strong financial institutions. However, concentrating so much power in a single institution could be a challenge for the democratic system. Having different sectoral regulators may both affect and reflect the structure of the financial industry. If financial conglomerates or universal banks are common the argument for a universal regulator becomes much stronger as supervision of the institution as a whole does not simply represent summing of the parts (Wall, 2009).

The question to be answered is whether it is easier to resolve conflicts of interest internally within an individual institution or externally among institutions. If the internal route is followed then it is important to make sure that the conflicts are resolved transparently by the top decision-making body and not inconsistently at a variety of lower levels. However, as the present crisis has demonstrated the basic incentive for regulators to undertake their task effectively is also required.

There is also a problem of incentives over whether the same institution should be responsible for ex ante systemic stability and ex post solution of problems. Adams (2009) argues largely in favour of it being the same organization but the tendency in some countries has been to separate them both so that the resolver is not tainted by the errors of the avoider (whether actual or supposed) and the opportunity for denial of the problem is reduced. Whether one institution or multiple institutions with a coordinating body is more efficient depends on the context and on the leadership.

Ways of Improving Micro-prudential Monitoring

The improvement of micro-prudential regulation and supervision has attracted widespread attention in the present crisis because such regulation has failed to detect problems or act early enough and has actually contributed to creating the problems in the first place by creating perverse incentives for banks. The normal range of indicators of difficulty, as illustrated by the CAMELS ratings in the US, forms a rather hit and miss affair but something comprehensive of this type that is regularly updated and reviewed gives the best chance of detecting a problem. For any such range of indicators to be effective they must sometimes indicate problems when there are none if they are to be sensitive enough to catch almost all problems cases early. The cost of a few investigations that turn out to be unnecessary is a small price. Nonetheless, CAMELS, as applied in the US, appears to have been flawed because it did not consider the upstream and downstream management of the risks by counterparties, and had a narrow within-institution focus.

Much weight is placed on capital buffers both in the Basel Committee advice and its implementation in the Capital Requirements Directive in the EU. However, the use of capital triggers alone for early intervention is not helpful as they cut in far too late, especially if liabilities are off balance sheet. Capital triggers work well as a backstop for prompt corrective action, ensuring that the authorities do not delay in implementing solutions for problem banks. The incentives for forbearance are strong, so while considerable discretion is desirable over which techniques to use in any particular situation clear rules are needed for how rapidly they should act as resolutions take several weeks to put in place. Thus both sets of requirements for action and the powers to act thereon are required.

The primary concern therefore is that banks should hold more capital as buffers have proved inadequate; that banks should also have liquidity buffers so that they can withstand the drying up of financial markets for a significant period and lastly that they should not become too leveraged so as to lessen the need for drastic asset sales when prices are artificially depressed in a crisis. Central banks will always be there as the lender of last resort to ensure that confidence is maintained in the system as a whole in the event of market problems but buffers will reduce the fragility of the system and buy time for solutions to be worked out in the event of difficulty.

The Basel rules encouraged banks to shift problems off their balance sheets but in practice there was still exposure to risk especially through reputation and hence one can expect that authorities will be keen to make sure that this misleading shifting does not occur in the future (Plummer, 2009). Although these concerns are already being addressed by the Basel Committee on Banking Supervision, countries can introduce such measures on an interim basis as soon as markets become strong enough to support them. An example is to reverse the procyclical nature of current capital requirement for banks and replace it by requirements for banks to hold more capital as the economy and their balance sheets develop rapidly so it can be used to meet the losses that occur in contractions, which is discussed below. The crisis encourages over-reliance on central bank funding, especially since it has been provided at below market costs, rather than at the traditional premium. Hence escalating moral hazard has been rewarded. What the central banks and regulators need to do is make the banks 'stand alone' in terms of capital and liquidity and independent of state guarantees and funding.

Box 2: The need to improve financial sector and regulatory capacity in Indonesia

For a number of reasons, major reform and considerable time will be required for an emerging economy like Indonesia to adopt a well-developed supervisory system and the Basel committee recommendation for increased reliance on the evaluation and testing of banks' own risk-management systems. This will necessitate improvements in market infrastructure, reform of the corporate sector, including both public and private companies, and strengthening of financial-sector regulatory and supervisory agencies. Such a shift in the regulatory and supervisory system will also require the retraining of bankers, supervisors and regulators in the field of risk management in the banking industry.[6]

First, the Indonesian economy may be described as mixed because of the important role played by state-owned enterprises (SOEs) and heavy government interventions in the economy. Second, in terms of assets and branch networks, the banking industry constitutes the core of the Indonesian financial system. Within this, a group of public-sector banks controls about half of the banking market in Indonesia. The activities of these public-sector banks include quasi-fiscal operations to promote government policies, and consequently they are not subject to market discipline. Third, during the long history of financial repression, the government of Indonesia, not only set bank lending guidelines, but also exercised control over both deposit and lending rates, thereby segmenting the financial markets.

Fourth, all domestic privately owned banks in Indonesia in the past belonged to politically well connected business groups or conglomerates. Fifth, healthier market competition from foreign banks has only recently been allowed, following the Asian financial crisis of 1997. Sixth, there was no incentive for bank managers to monitor and manage risks, to upgrade transparency in corporate reporting or to provide economically relevant information. Seventh, the basic ingredients of market infrastructure are still in the making in emerging Indonesia, including (i) protection of property rights at least cost, and (ii) the availability of high quality information to minimize market asymmetries. The legal system continues to be underdeveloped regarding enforcement of contracts and resolution of bankruptcy.

Market infrastructure has not improved significantly and weaknesses persist in the supervisory and regulatory system. Relevant, accurate, comprehensive, and timely information is frequently unavailable. In some cases, banking supervisors continue to be disinclined to take prompt corrective action. Technical knowledge and personal integrity are still inadequate, and there is also inadequate technical expertise and interagency coordination in promptly addressing problem banks.

Macroprudential Surveillance/Regulation

[6] This box is based on Nasution (2009).

The key facet of macro-prudential regulation is that it draws attention to movements in the market as a whole that can be a threat to systemic stability even though at the individual institutional level the problem might not be so clear. The present crisis has not only revealed that macroprudential supervision has been weak in many countries but that the relationship between it and microprudential supervision has not worked well. Currently those responsible for macroeconomic stability claim they can do little more than warn the government and the financial system of emerging dangers (King, 2009). However, had they chosen to place more emphasis on asset prices they could have had a greater influence even through monetary policy.

Two major areas for action need to be addressed: first the structure of the financial system itself needs to be such that it can withstand major shocks, both by avoiding having institutions whose failure disrupts the system and by compelling them to have in place plans for handling the failure of core suppliers in a manner that does not disrupt the system. Second, there must be discretionary tools that can be used to supplement the automatic counter-cyclical stabilizers mentioned above. Such tools can take the form of loan to value ratios for lending or even reserve requirements, increasing margins and collateral calls (Mohan and Kapur, 2009). Macroprudential tools can also be applied to manage capital flows, as was described in Chapter 3.

One important step that can be taken is to assign specific responsibility for handling systemic risk. Adams (2009) advocates the use of a Systemic Risk Council. Such a Council would be very high level and would not only be responsible for monitoring and coordinating but also for the undertaking of both pre-emptive and corrective macroprudential by the responsible agencies. Pomerleano and Kawai (2009) cite the National Economic Action Council in Malaysia as a good example, while Cho (2009) points to the emergency Economic Policy Coordination Meeting in Korea chaired by the President with a Financial Supervisory Commission to carry out the actions.[7]

One obvious problem in the present crisis was that the authorities did not know where the ultimate risk lay as a result of the various risk shifting instruments that had been used. Hence they were not able to assess accurately the ability to withstand a large adverse shock accurately. Doing this implies being able to look beyond the financial sector and focus also on both household and corporate behaviour with limits for households on loan to value ratios for mortgages and debt to income ratios and

[7] Kawai and Pomerleano (2009) set out the Indonesian, Japanese, Korean and Malaysian schemes. Indonesia is planning to introduce a Financial System Stability Committee along similar lines to the Korean arrangements.

limits on corporates for leverage and associated tax incentives. Insufficient information is available on the structure of household finance in particular to gain a clear idea of the problems in the sector and how they might best be tackled. Rules are only as useful as their enforcement and part of the problem appears to reflect regulatory capture that led to a weak adherence to traditional prudential norms.

What one hopes to get from both micro and macro-prudential monitoring is some form of early warning. Ideally the warning enables the authorities and the supervised to avoid the problems altogether by pre-emptive action but even if that is not possible, being able to activate the corrective systems in advance would be of considerable benefit. For a system to predict most crises, even with the benefit of hindsight, it has to be over-sensitive and 'predict' several that do not occur. Such false alarms can lead to complacency.

Ways of Reducing Procyclicality

It has become clear that capital adequacy regulation, particularly under Basel 2, can contribute considerably to increasing the amplitude of the financial and economic cycle. In rising markets capital values increase and little effort is required to meet capital requirements that are constant through the cycle. However, in downturns, not only do losses mean that new capital is required but capital values themselves fall and the cost of raising capital increases. This means that banks may well have to contract lending in order to preserve adequate capital thereby adding to the difficulties for the real economy. Second, under Basel 2, ratings, whether internally or externally generated play a central role in determining capital requirements. However, ratings also tend to follow a cyclical path, partly because the track record is important in their determination. Taken together these factors amplify the cycle.

However, there are much longer-standing reasons why the financial system tends to exacerbate cycles in the financial system (Fernandez de Lis and Garcia-Herrero, 2009) and knowledge of these should already have led regulatory authorities to implement a system that was clearly counter-cyclical in character. These include the fact that 'good times' are likely to lead to a more relaxed attitude to risk; it will simply be longer since people were exposed to a downturn and memory will fade; herd behaviour exacerbates swings and encourages over-lending. Moreover, the bonus system will encourage risk taking in the up phase, as people make provision for the possibility that they will lose their jobs in the contraction.

The simplest response is to introduce a counter cyclical element into the determination of capital ratios, raising them when growth picks up and allowing them to diminish as growth eases. Given this involves increasing capital when it is cheap but not having to do so when it is scarce, this conveys an immediate benefit. Such changes can probably be made without the need for new legislation in many countries. Fernandez de Lis and Garcia-Herrero (2009) describe a different approach, currently employed in Spain and more recently introduced in Peru and Colombia, whereby provisioning for bad loans is pro-cyclical. Whenever lending increases more rapidly, provisioning needs to increase more than proportionately on the grounds that rapid increases are likely to be accompanied by a decrease in the quality of lending. In a downturn such provisions can then be used as defaults increase, without the need to increase capital in such difficult times.

Asian countries have made some use of such counter-cyclical provisions in the past. Hong Kong for example has used loan to value ratios that become more cautious the faster the asset price underpinning the loan increases. Andritzky et al. (2009) suggest a wide range of counter-cyclical measures that could be applied, in particular recognizing the asymmetric problems of liquidity that will occur when the economy turns down and doubts about loan quality lead to a withdrawal from markets and the freezing out of marginal participants. This can most readily be addressed simply by ensuring a substantial liquidity cushion and matching of funding sources to cash-flow needs, as already introduced in New Zealand (RBNZ, 2009). More realistic stress tests that take account of the freezing of markets will help determine the necessary level of preparedness. Leverage ratios will also tend to limit pro-cyclicality.

A further concern relates simply to accounting methods. The use of fair value accounting can be heavily procyclical if values are derived from impaired markets when the economy turns down. Not only does there tend to be overvaluation in the more euphoric phase but artificially low valuation in the downturn. It would be highly retrograde to return to the use of historic values or other systems that ignore market realities. Valuation methods that operate through the cycle make far more sense. However, accounting rules themselves tend to make it more difficult to introduce provisioning in excess of known at the time losses (Fernandez de Lis and Garcia-Herrero, 2009).

However, some procyclicality is more difficult to handle. Assisted by very low transaction costs, financial flows will tend to be pro-cyclical, attracted not simply when the economy is doing well but also when interest rates are relatively high when the monetary authority is attempting to slow demand. A stop and reversal in these flows form part of the sharp downturn and the reversal of flows is compounded when the monetary authority cuts interest rates to low levels in order to encourage demestic lending and the recovery.

Regulation of Innovative Financial Products and Specific Investor Groups

The Asian region has not rushed to adopt the sorts of derivative instruments such as CDOs (collateralized debt obligations) and CDSs (credit default swaps) that have provided such difficulties in the US now that there is doubt about the value of the underlying loans (Fujii, 2009). There are therefore few immediate concerns over how they should be handled as the later stages of the crisis unfold (Morgan, 2009). However, many of these instruments are valuable means of hedging and spreading risk and their adoption in the region, once the present crisis is over, will help in the deepening of markets and the management of risk. However, some such as CDSs will be inherently unstable if the insured does not actually the risk that is being covered (Soros, 2009).

Such instruments are not necessarily destabilising. The idea of non-recourse mortgages in the US makes them much more liable to default than elsewhere, where the residual liability not covered by the collateral remains. Most countries that securitize mortgage loan portfolios have not strayed into the sub-prime area, a concept largely peculiar to the US, nor moved them off balance sheet. In reaction to the crisis there has been a rethink to ensure that in future the aspects of securitization that have lead to instability are offset. In the first place, all of those involved should retain proportionate exposure until the principal underlying the security has been paid back. In the past many of those involved have collected their fees up front and have had no exposure to subsequent deterioration in quality. Thus agents, originators and rating agencies, for example, should receive their remuneration according to the performance of the portfolio (JSFRC, 2009). This will help all ensure the quality of the assets. This would go a long way to achieving the required outcome especially in combination with standardization of many of the products (Fujii, 2009). A similar arrangement could be put in place for CDSs, requiring them to be actual insurance and not purely speculative.

The anomalous treatment under the Basel regime and associated accounting procedures that encouraged banks to move such assets off their balance sheets should be ended. While some agents were able to collect their remuneration up front many banks discovered that reputation risk meant that they were exposed to the losses in the Special Investment Vehicles they had set up to take mortgage-backed securities off the balance sheet. A concentration on standardized products would make them more transparent and easier to price. Indeed they could become more readily traded on exchanges and gain stability from the existence of central counterparties. Hence, if these straight-forward measures are taken, such securities could be developed to advantage across the region, assisting in the finance of standardized loans and reducing the dependence on banks without introducing any unwelcome instability into financial markets.

Authorities round the world have had concerns over the potentially destabilizing activities of speculative activities such as hedge funds (Kim, 2009) because such organizations are largely unregulated and little known and they might present significant risks to financial stability. However, as the crisis has developed it has become clear that hedge funds have presented few problems and indeed, insofar as they have been holding some of the impaired assets, they have been a stabilizing influence as they have been able to absorb the problems and not prove a source of contagion to the market as a whole.

Hedge funds are by and large restricted to large and relatively sophisticated investors and hence have few implications for the protection of the less sophisticated and small scale investors who can ill-afford substantial losses. Hence the concern for the Asian countries is two-fold, first not to discourage the operation of such funds as they provide a useful vehicle for mobilizing investment in many more illiquid and high risk/return areas – a particular need in emerging markets – and second to avoid such funds being unregulated vehicles for retail investments where the social consequences of the realization of downside risks and the risks of mis-selling could be considerable. However, some hedging activities may be destabilizing and one that has caught attention is short-selling. In the present crisis it was banned temporarily in a number of jurisdictions, particularly with respect to bank shares. In liquid markets short selling may actually help in price discovery but in less liquid markets it might result in serious problems.

The main ratings agencies have been less active in the Asian countries than might have been expected from their level of financial development and regional ratings agencies have only been emerging slowly. While this may have meant that Asia was less caught up in the mis-rating of securities that has been demonstrated in the present crisis it also means that assets have been more difficult to value. Hence, moving forward, Asian countries will want to see rating agencies develop but in a framework of confidence and with the abolition of the conflicts of interest that have arisen with agencies acting both as advisors and raters (Plummer, 2009). Confidence could be increased both by greater transparency but also by rating agencies having their income at stake according to the performance of the assets they rate. The independence of raters needs to be demonstrable.

It is widely argued that rather than simply trying to regulate the supply of financial services ever more closely, that the authorities should devote more effort to trying to protect the poorly informed consumer. Although of course this can only be partly successful. Trying to increase financial literacy and the understanding of risk and how to handle it in the economy is a difficult task and and affects the most advanced financial markets. Despite the high savings rates in many Asian countries such education could play an important role in both risk management and the channelling of funds towards productive uses.

Improving resilience against shocks

While individual countries can do much to improve their resilience to crises, many of the Asian countries are relatively small and will always be vulnerable to external shocks. Hence there is an important role for increased regional cooperation in which countries can help each other by joint action. However, increased financial interdependence can offer mutual benefit outside crises. One such example is the development of bond markets that will help develop sources for financing investment within the region, see Section 5.

The strains in Europe during the financial crisis are instructive with severe economic crisis in Greece, Iceland, Ireland and Latvia and major problems elsewhere. However, the euro has remained stable throughout, so that countries have avoided currency-induced instability that could otherwise have added to their problems. Those countries that have encountered serious banking problems have largely sown the seeds of their distress themselves. Closer economic relations in the EU and beyond have offered clear benefits (Winkler, 2009), related not simply to an improved rate of growth but also to an ability to withstand shocks. Economic and financial integration in Asia is at best at the level it was in Europe 20 years ago. There is therefore a prima facie case that closer regional relationships would assist Asia as well (ADB, 2004). However, it is important not to exaggerate. Some countries that have either adopted the euro, Ireland for example, or have euro-backed currency boards (the Baltic States) have been particularly hard hit by the present crisis as they have not been able to depreciate their currencies in response to larger than average adverse shocks and have hence experienced substantial real declines. Furthermore, the European countries have realized that their macro-prudential preparedness as a region was weak and that their plans for handling cross-border problems, particularly where banks run across borders, is seriously deficient (de Larosière, 2009). As a result they have decided to set up a European Systemic Risk Council, led by the ECB and to develop an enhanced European System of Financial Supervision, a regional variant of the proposal for national Systemic Stability Regulators.

One of the most important steps in regional cooperation is better information and analysis, simply to understand the extent of the financial interdependencies in the region and to assess the challenges these pose and how they can best be addressed. Europe has one key advantage over Asia in this regard. Right from the signing of the Treaty of Rome in 1956 the European Community set up a central organization, the European Commission, whose task it is to promote the process of integration. Other institutions have since been added including most notably the European Central Bank. The corresponding Asian institutions, insofar as they exist, are small and with little power by comparison. Hence to make substantial progress in improving regional financial stability there needs to be a suitable driving force.

The idea of an Asian Financial Stability Dialogue (Kuroda, 2008; Hsu and Liao, 2009; Plummer, 2009) might provide such a basis. In the early stages it could focus on issues that would help advance the areas of common interest that have already been identified but are largely being dealt with under separate initiatives such as the management of volatile short-term capital flows. Plummer sees it initially focusing on improving early warning, being able to assist in negotiations on common exchange rate changes and perhaps helping in crisis management. In some ways he sees it as being akin to the Open Method of Coordination in the EU, whereby countries agree common objectives for the medium-term. It is each country's choice how far to go in implementing any of this agreement but the role of the secretariat (the Commission in the European case) is to monitor progress and publish the result. Then countries will be in some form of league table and this may put peer pressure upon them. The problem with this arrangement is that it is easy for countries to implement measures that enable them to claim that they have undertaken the necessary actions but it is quite another to see whether they are working in practice and that the desired changes have really taken effect. The principal question at issue is how far the AFSD might proceed beyond simply monitoring, diagnosing potential threats and suggesting remedies, as some organizations, particularly the BIS, did diagnose various sources of fragility before the crisis but had no powers to act upon them.

While the AFSD as outlined by Kuroda (2009) is not aimed at the sorts of closer harmonization of financial markets and tools in the member countries as developed in Europe and accelerated under the Lamfalussy process, Hsu and Liao suggest this is exactly the road it should take with matching committees of Asian Banking Supervisors, Asian Securities and Futures Supervisors and Asian Insurance and Pension Supervisors. They see these committees as identifying areas where common regulatory arrangements would be helpful. However, while they might be able to develop such recommendations it will be for the individual countries to implement such change. It seems unlikely that such harmonization would occur quickly or widely implemented unless there were obvious sources of gain.

Plummer (2009) argues that the AFSD could play an important role in developing best practice for securities markets in the region and in encouraging the development of regional markets, which would not merely make it easier for investors to address a number of markets but would deepen the markets so that a yield curve over the range maturities could develop rather than the rather fragmented present framework.

Some harmonization will be appropriate in activities that relate to the flow of capital both in the taxation of proceeds and the common design of instruments. However, the structure of the proposed AFSD does relate closely to the objectives of the FSB (Financial Stability Board) at the international level. Its predecessor, the FSF, has been promoting the observance of standards and codes. The AFSD can thus be seen as a first step, with the promotion of action to achieve greater financial stability in the region. It makes more sense to have an organization with a limited mandate that makes successful progress than to try to leap immediately to closer cooperation without the necessary political and popular support.

EMEAP (The Executives' Meeting of the East Asia and Pacific Central Banks) has been playing an increasing role in helping the Asian countries work together in recent years. While it may be over-ambitious to suggest that this might develop into an Asian BIS (Plummer, 2009) nevertheless it presents a possible organizational basis for increasing co-operation. As yet the organization does not have a developed secretariat, although participating central banks service its subcommittees and working groups. However in some respects the problem for Asia is that there are quite a number of different fora for cooperation, developed in some cases by differing groupings of countries, rather than one major focus that have the resources and mandate to make a major impact.

4. CRISIS MANAGEMENT

Crisis management is the second line of defence to minimize losses, when the first, crisis avoidance, fails. It is clear that the state has an important role to play in the organization of crisis resolution and that the private sector is both unwilling and unable to perform much of this function efficiently. However, this role is very different from the state bailing out many financial institutions with taxpayers' money. On the whole bailouts occur because the authorities have no reasonable alternative, either because of inadequate powers or inadequate prepositioning. To maximize the chances of maintaining financial stability, governments need a balance between effective crisis avoidance measures and well-formed crisis management regimes.

Perhaps the most obvious general requirements are that authorities need to be able to intervene early before the losses mount, that they need to make sure losses are recognized so as to reduce the uncertainty that causes markets to freeze up. They need a wide range of tools for early intervention, particularly to be able to take over failing banks from their shareholders before all value is lost. Delay and indecision tend to make crises much worse.

Consistency is important. A typical response is to have policy reversals, initially being prepared to bail out the first institutions that get into difficulty, despite prior assurances that this will not happen, but then to find, when the crisis turns out to be worse than expected, that a switch back to a harsh policy is required if funds are not to run out. Such switches can have a disastrous effect on risk-taking, the willingness to achieve private sector solutions and confidence (Calvo, 2009).

Sheng (1996)'s four phases of crisis management – diagnosis, damage control, loss allocation and changing the incentives form a useful classification along a time line. Initially the authorities typically buy time. They are not sure about the size of the problem but wish to make it very clear that it will be handled without major disruption so confidence is maintained. This is difficult, as the situation is characterised by uncertainty. The present crisis has seen a whole rash of new measures that countries will want to add to their toolkit ready to be deployed on future occasions. In general it has proved possible to handle liquidity problems. The crisis has also demonstrated the normal dilemma of whether to employ drastic measures early and hence reverse the concern or find that options have been used up too early.

It is not possible to suggest a recipe for handling crises as not only do the crises differ in character but the institutional structures of countries are also different. Many choices remain controversial with some favouring asset management companies to handle impaired assets while others prefer them to remain on the orginators' balance sheets in order to give better incentives and opportunities for restructuring. As in crisis avoidance, it is essential that the authorities work closely together in their efforts to both bring the crisis under control and resolve the problems rapidly.

Coordination Issues

There is widespread agreement that some organization needs to be in charge of actions in a crisis if they are to be rapid, clear and effective. Any such organization will need very close working links with all the parties involved: central bank, supervisory agency, deposit insurer, ministry of finance. An alternative is that each party addresses its own responsibilities and there is a coordinating committee that makes sure that all the issues are addressed in a coherent manner. Government by committee in these circumstances is likely to be difficult but has been practiced successfully (as pointed out by Kim (2009) in the case of Korea). What is required to overcome time inconsistency is to make as much as possible of the resolution of the problem subject to rules of behaviour that have been laid down outside times of crisis. The existence of such arrangements in itself pushes back the frontier of where panic and crisis start. This involves trying to abolish the idea of 'too big, too complex or too interconnected to fail', as is developed in the next section.

Bank Recapitalization/Disposal Issues

Perhaps what is most worrying in the crisis is the degree to which market discipline has failed to be effective. In part this is because of the concentrated structure of many banking systems where it would be difficult to find suitable purchasers but in the main it is because the appropriate incentives do not exist and because many of the larger banks have become too complex for them to be resolved. Regulatory capture, political pressure for forbearance or lack of enforcement all contribute to weakening market discipline.

These circumstances need to change and the authorities need to have in place a plan that could cope with problems in any of the banks in its jurisdiction. In many respects the onus is on the banks themselves to have structures that can be handled. The Bank of England has suggested that they each need to prepare a 'living will' setting out how they could be resolved in manner that allows their vital functions to keep operating so that markets are not disrupted and confidence in the system is maintained.[8] Indeed, perhaps regulators also need a living will to spell out that they will act rather than wait for more data. Confidence requires that depositors must

[8] They are also referred to as 'funeral plans' or 'shelf insolvency' (Wall, 2009)

believe that even though a bank may get into difficulty they will not face any material break in access to their funds so normal activity is not interrupted.

Much of the problem revolves round the difficulty of assigning losses when a bank is resolved. It needs to be possible to write down the shareholders according to a valuation – to zero if necessary. The bank also needs to be recapitalized. In some countries subordinated debt can also be written down automatically but a technique which has considerable merit is that a sufficient form of the banks' debt should be hybrid capital so that it can be converted from debt to equity in the event of a resolution, without any need for obtaining the agreement of those involved at the time (Wall, 2009). Such an equity for debt swap appears more plausible than requiring contingent capital whereby an insurer provides the necessary capital should the bank get to a certain degree of difficulty.[9] The problem in this case is that in a systemic crisis the burden on the insurers may become too great because of the simultaneous demands from several banks. If either of these approaches can be implemented then the need to rely on the taxpayer can be greatly reduced and nationalization can actually be the last resort that is claimed for it many schemes.

There is a clear link to improvements in micro-prudential regulation discussed in Section 3. It has only become apparent to some authorities as a result of the present crisis that there are important differences between the sources of a bank's capital that affect its ability to stabilise the institution in the event of a shock. It is really only equity that can be used while the bank is still running. Hence there is a move afoot to increase equity requirements. However, if more of Tier 1 and Tier 2 capital could be converted to equity in the event of severe problems it will be possible for a bank to continue operating much in the way that a nonfinancial company can manage to reorganise its debt obligations in the face of difficulty. Preferred stock could be converted into common equity should the equity ratio fall below a particular threshold (Wall, 2009). Both book and market value triggers are required to ensure that losses are recognised. For the capital cushion to be usable such a conversion needs to occur without the bank ceasing to operate. In some countries such as the US this can

[9] The Squam Lake Working Group (2009) has suggested that such a debt for equity swap should be triggered not simply by the problems of individual institution but only where there is a general crisis. Where the problem is not system wide then the individual institution could be handled by the normal special resolution regime as there will be other well-capitalised institutions in the market who could take on the troubled bank before or after failure.

be done through the special resolution regime, although ownership is removed from the original shareholders

Usually it is very difficult to proceed to recapitalization without addressing the question of the valuation of impaired assets thoroughly (Adams, 2009). Two techniques are normally employed, one is to support existing organizations, so the assets are kept on the balance sheet but subject to some loss sharing agreement but the other is to strip them out of the banks that are troubled altogether and place them in Asset Management Companies (AMCs) or 'bad banks'. The former route stands a better chance of avoiding paying over the odds for assets that cannot be valued rapidly and increases the chance that the assets will be well managed. Otherwise banks will try to offload all their worst assets at inflated prices and may harm lending to get the economy restarted, as AMCs are less likely to rollover loans and may be unable to offer new lending. On the other hand maintaining the problems in the existing banks may continue to keep them under pressure and not end the dangerous cycle of expected losses leading to the need to sell assets that then further depresses their price requiring further sales. The key step is to decide rapidly which banks do not need assistance, which have problems that can be addressed and which simply require intervention and resolution.

Issues Related to Deposit Insurance

There has been increasing use of deposit insurance in Asia and the Malaysian authorities have been leaders in implementing standards and principles for what their system is to achieve. Nevertheless the experience in Europe in the present crisis has emphasized five main failings in deposit insurance systems when it comes to a crisis:

- people were not offered sufficiently continuous access to their accounts to prevent a run.
- coverage was inadequate and deposit insurance levels have been raised.
- some funds have been unable to cope with the demands on them
- some countries needed to offer wider guarantees to other creditors
- there were serious problems for depositors in cross-border banks.

Asian countries therefore need to check their arrangements against current standards as set out by IADI (2009).

One common resort on this occasion, as in the past, has been to blanket guarantees. Such guarantees were introduced initially by Hong Kong to stabilise the market and spread rapidly round the region.[10] In a crisis such signs of confidence and protection from losses have an important effect not just domestically but also on capital flows. While such guarantees are largely costless and very effective if the crisis does not deepen and they are not in fact called upon they can become very expensive and indeed lack credibility if the crisis is really serious (Adams, 2009). To some extent countries may find it difficult to resist the call for such guarantees despite the moral hazard involved if their use in other countries becomes widespread. Here a degree of prior coordination among the Asian countries say as part of the AFSD might help but such commitments can often prove valueless in the heat of a crisis. Ultimately, whether blanket guarantees work depends on the fiscal solvency of the country and the foreign exchange liquidity of the central bank.

Cross-border arrangements

We must extend the discussion to the international level, not merely because many of the largest banks run across borders but because many of macroprudential issues are international and the lack of a central empowered actor meant that national authorities could not act alone. However, the actions that have been undertaken thus far by the international community as the crisis has evolved are insufficient. While the new Financial Stability Board (FSB) is an improvement on its predecessor the Financial Stability Forum it is not likely to have the staff to undertake action on the scale required. The FSB has no enforcement capacity. It is not clear that it can even name and shame. National authorities will retain the power and hence it will be difficult to get them to act without effective forms of compulsion. International attempts to handle cross-border banks, that are currently being addressed again by the Basel Committee, have been successful in identifying the problems but not the solutions. Even in the EU, where the internationalization of the financial system is an explicit objective, they have not been able to address the problem. The de Larosière Report (2009) while addressing macroprudential stability and the ability of national supervisors to work together and harmonize their tools and procedures only identifies the need for action on the resolution of cross-border. However, handling institutions such as Lehman Brothers does not lie within the purview of such regional authorities and remains to be tackled.

Kawai and Pomerleano (2009) therefore support the Asian Financial Stability Dialogue as part of a regional layer of a concerted Financial Stability Board effort to

[10] There is a difference between retail deposit guarantees and a blanket (sovereign) guarantee. The former is to stop local bank runs, the latter to prevent a currency run.

improve international stability and in its own right as a vehicle for the Asian countries to address their own problems irrespective of the global response. They argue, like Winkler (2009) that there is a role for a regional lender of last resort which they label an Asian Monetary Fund. They see this very much as an alternative to giving the IMF wider powers. In part this reflects continuing discomfort in the region with the conditionality applied by the IMF in the previous crises in 1997/8 and the wish to apply their own guidelines that permit a rebalancing of growth. At present each country has tried to provide its own foreign exchange cushion against future shocks, so as to be able to avoid the need to call on the IMF, which has helped to maintain some of the imbalance that has lead to destabilizing activity outside Asia.

Box 3: The need to reduce financial vulnerability in the Republic of Korea

Korea suffered the greatest direct financial impacts from the global financial crisis. This reflected a number of circumstances, including: an open capital market; a high dependence of Korean banks on wholesale funding, especially in foreign currency, a relatively small current account surplus, and communication difficulties related to foreign currency liabilities in relation to the size of its foreign exchange reserves. As a result, it faced a severe shortage of dollars. This caused the Korean won to depreciate by far the most among Asian currencies during the crisis period, while domestic interbank rates shot up. Eventually, in order to stabilize the situation, the Bank of Korea had to obtain a swap agreement of up $30 billion from the US Federal Reserve Bank.

The key vulnerability was the dependence of Korean banks on wholesale funding. Although loan-to-deposit ratios are lower than one for most Asian banks, the ratio for Korean banks is about 1.2. Much of the shortfall of deposits therefore must be made up via the wholesale market. Moreover, partly due to the important role of foreign banks in Korea, a legacy of the Asia Crisis, many of these funds were customarily obtained in US dollars from the headquarters of those foreign banks. However, once the crisis erupted, these funds were withdrawn rapidly.

A second issue was the level of foreign exchange liabilities related to foreign exchange liabilities. Prior to the crisis, Korea held about $200 billion of foreign exchange reserves. This was comfortably higher than the level of short-term foreign loans, i.e., those of less than one-year maturity. However, the market reacted sharply when it became know that a large amount of longer-term loans were due to be rolled over within the coming year, i.e., effectively they were short-term loans, too. Moreover, it became apparent that the outflow of equities holdings could prove to be a drain on the fx reserves as well.

From this experience, two broad lessons can be derived. First, degree of dependence on short-term foreign currency funding should have raised macroprudential warning flags. Second, a secure source of foreign liquidity is essential. This either has to be provided by holding adequate amounts of fx reserves or by having external sources of liquidity readily available, whether through regional swap agreements or agreements with the US Federal Reserve or the International Monetary Fund.

5 DEEPENING ASIAN BOND MARKETS

In the decade since the Asian Crisis, Asian bond markets have substantially expanded in size, partly because of initiatives such as the Asian Bond Market Initiative and the Asian Bond Funds, but also because of special factors such as widespread issuance of sterilization bonds by governments and the general search for yield during a period of low global interest rates and declining perception of risk. Nevertheless, these markets are still relatively undeveloped compared to the region's share of the world economy. Further deepening could contribute to enhancing financial stability and promoting a rebalancing of growth toward domestic demand by helping to channel the high level of regional savings to investment projects (both public and private) and consumption within the region. This section describes the rationale for developing Asian bond markets, the progress they have made so far, factors hindering further progress, and measures to promote further development.[11]

The rationale for developing Asian bond markets

It is not clear how effective are bond markets are in providing alternative sources of finance in the face of difficulties in the banking sector. This achannel clearly benefited US companies during the current crisis, but the impact on Asian companies is less obvious. However, where regional financial markets are vulnerable to the effects of financial crises in developed economies, any alternative financing routes should help.

There is much evidence that increasing the size of bond markets tends to reduce issuance costs and increase the efficiency of the market. Increased size has the following benefits:

[11] This section is based largely on Batten, Hogan and Szilagyi (2009) and Spiegel (2009).

- increased transaction volumes can raise the level of coverage by global rating agencies;
- development of bond markets tends to reduce yield curve anomalies, thereby increasing the information content of the market; and
- larger markets tend to be more liquid, thereby attracting more investors.

Analysis of the development of bond markets in the euro area shows that the primary path to removing bond market inefficiencies is achieving the optimal scale necessary for ensured liquidity, as well as deeper analyst coverage. Asian markets still show substantial limitations with regard to all three factors. However, these factors can be self-reinforcing, leading to a virtuous circle of bond market development.

Problems of Asian bond markets

Aside from problems of scale, Eichengreen and Luengnaruemitchai (2004) highlight several obstacles for the development of bond markets in the Asia-Pacific region including the need to simultaneously reform other supporting aspects to financial markets, such as bankruptcy legislation, the degree of corruption, securities market regulation, capital controls so there is free movement, and finally the importance of adopting international accounting standards. The very presence of capital controls, by keeping bond markets underdeveloped, reduces the apparent incentive to end those controls. In addition there are necessary regulatory reforms linked to improving corporate governance (Nestor and Thompson, 1999; Thompson, 1999; Thompson and Poon, 2000) and outlines in various blueprints for financial market development (Jiang and McCauley, 2004; Park and Park, 2005).

Many bond issuers in Asia are still not covered by the major global credit rating agencies because of small market size. This reduces the investor base, as many large Western institutional investors, such as pension funds, require that the bonds included in their portfolios be rated by international credit rating agencies.

In addition, the presence of a significant government sector may crowd out corporate issuers. This is clearly linked to the underdevelopment of some private bond markets (e.g. India, New Zealand and Pakistan) (Batten, Hogan and Szilagyi 2009) Some authors (Lardy, 2008) have argued that increased issuance of sterilization bonds had a negative impact on the development of the Chinese bond market, as the need to continue to issue sterilization bonds to pursue its exchange rate goals gives the Chinese government an incentive to discourage the development of the rest of the bond market in an effort to maintain low funding costs.

All these factors inhibit the size of the market, which in turn discourages market participants, leading to a kind of low-level equilibrium trap. Even when government made strong efforts to develop markets, they did not succeed in the absence of the proactive involvement of market participants; see or example, the Korean experience with its failure to develop a viable foreign bond trading and issuance market despite the very best efforts of policy-makers provides (Batten, Hogan and Szilagyi 2009: 16).

Development efforts to date

The literature on ways to develop bond markets generally focuses on three areas: facilitating the demand and supply of bond issues, and then overcoming structural impediments, such as the absence of financial market technology that may impede the development agenda (Walter, 1993; Schinasi and Todd-Smith, 1998; Kim, 1999; Rhee, 2000; Lejot, Arner, Qiao, 2004; Rhee, 2004; Park and Park, 2005; Arner, Lejot and Rhee 2006). The aim of increasing demand for bonds was the main impetus for the major post-Asia-Crisis initiatives at the regional level including the Asian Bond Funds (ABF) and the Asian Bond Market Initiative (ABMI). Introduction of a Credit Guarantee and Investment Mechanism, which would reduce structural impediments, has also been endorsed by the ASEAN+3 but further measures are still needed.

Asian Bond Funds. In June of 2003, EMEAP announced the creation of the first Asia Bond Fund (ABF1), which would be managed by the BIS (BIS, 2003). The ABF1 consisted of US-dollar-denominated sovereign and quasi-sovereign Asian bonds equal to approximately US$1 billion issued by the EMEAP countries excluding Australia, Japan, and New Zealand. The ABF1 was designed to encourage the development of Asian bond markets and reduce the region's perceived excessive reliance on bank financing (Kawai, 2005). From the beginning, the ABF1 was understood to be a vehicle aimed at retaining some of the region's reserves within the region to support the development of local capital markets. (Spiegel 14)

The second Asia Bond Fund (ABF2), launched in 2004, differs from the ABF1 in that it invests in instruments denominated in local Asian currencies, specifically, the local currency issues by EMEAP countries other than Japan, Australia and New Zealand. There are two components of the ABF2, the Pan-Asia Index Fund (PAIF), which invests in sovereign and quasi-sovereign issues from eight EMEAP countries, and the Fund of Bond Funds (FOBF), which invests in eight single market funds that hold sovereign and quasi-sovereign local currency bonds. Both the PAIF and the FOBF have initial allocations of $1 billion (Jang and Hyun, 2009). This kind of fund was established to help alleviate fears that excessive holdings of local currency issues by foreign speculators could "… erode control over monetary policy and expose them to currency speculation" (Park and Park, 2003). (quoted in Spiegel 2009).

These initiatives have contributed to increasing the demand for Asian bonds, but their effect must be limited, given the relatively small size of the funds. The impact of the ABF1 is likely to have been particularly small, given that it only buys dollar-denominated bonds. Their size needs to be increased substantially.

Asian Bond Market Initiative. In August 2003, the ASEAN+3 Finance Ministers' Meeting in Manila announced the ABMI, aimed at improving regional medium and long-term financial conditions in the region. Bonds guaranteed by the JBIC backed by these Pan-Asian bonds were issued on the Singaporean exchange, which promoted the creation of a regional CDO market. At the same time, the Asian Development Bank (ADB) and the International Finance Corporation (IFC) issued ringgit-denominated Malaysian bonds. There were expectations that the ABMI would help to "uncover" creditworthy private borrowers in the region (Park and Park, 2003).

In May 2008, efforts in this direction were increased with the release of the 2nd ABMI roadmap creating task forces for the promotion of issuance and demand for local currency bonds, and improvements in regulatory frameworks and institutional structures. In addition, member countries were asked to develop references for self-assessment to serve as their benchmarks (ASEAN+3 Finance Ministers Meeting, 2008). However, the effectiveness of these measures largely remains to be seen.

Credit Guarantee and Investment Mechanism (CGIM). The AFMM+3 also endorsed the establishment of a CGIM as a trust fund of the ADB with an initial capital outlay of $500 million to support private local currency bond issuance in region. Some details, such as the scope of coverage, leverage ratios and country limits were to be resolved by the 2010 meeting. (Spiegel 2009: 23) This could potentially have a greater impact than the earlier initiatives to encourage demand for private corporate bonds.

How to develop bond markets further

Despite these efforts, and the progress in markets made, it seems likely that there is substantial potential to expand Asian bond markets further. This section identifies further actions that should be effective in expanding Asian bond markets, including:

- encouraging foreign participation;
- improving government debt management to enhance liquidity;
- improving market infrastructure;

- encouraging rating agencies;
- improving regulation; and
- promoting regional harmonization.

Encourage foreign participation. Despite reservations about the level of risk management infrastructure in the Asia-Pacific region, encouraging foreign bond issuance in local markets is likely to lift regional markets toward global standards. Supranational corporations, such as the World Bank, can play a key role in facilitating corporate bond market development, as this market is almost entirely high credit quality, comprising sovereign, supra-national, and major international bank issuers. (Batten, Hogan and Szilagyi 2009)

This recommendation follows the historical pattern of bond market development in other countries, which appears to require a certain sequence of issuance. Generally, the highest credit quality issuers issued first, followed by high-quality banks and some multinationals. This order seems to have been developed by intermediaries to assist pricing – such as the need for benchmark bonds at long maturities - and related issues. (Batten, Hogan and Szilagyi 2009) Moreover, encouraging foreign borrowers to issue domestically in local currency would allow countries to expand domestic financial depth. As noted by Hoschka (2005), the presence of highly rated multinational corporations on the domestic local currency bond market may actually "crowd in" local issuance, because they are likely to be experienced in raising capital through this channel and will deepen the markets for their domestic counterparts (Spiegel 2009). In addition, foreign firms that raise funds locally with the intent of swapping these funds into other currencies can contribute to the development of cross-currency swap markets. This is desirable for local issuers that issue abroad and wish to hedge these issues to avoid exposure to currency mismatches (Spiegel 2009). Of course, it must be recognized that entry by foreign corporations or supranational issuers cannot be taken for granted.

Improve government debt management. Risk-free benchmarks are an integral and necessary requirement of the corporate bond market for pricing and hedging purposes. Ultimately, the risk free government bond is the benchmark for credit spreads. Thus, it is critical to recognize that adequate liquidity must be maintained irrespective of fiscal requirements. An alternative, if supply of such securities is lacking, is to formally state that high quality foreign bonds are credit substitutes – as has occurred in Australia and New Zealand. (Batten, Hogan and Szilagyi 2009)

Improve financial infrastructure. The great majority of bonds (88.2%) are fixed rate with simple pricing features (Batten, Hogan and Szilagyi 2009). Such issuers will normally require means to shed the currency risk associated with local currency bond issuance. Therefore, the long term viability of this segment is closely linked to the presence of highly liquid foreign exchange and derivatives markets that facilitate risk management and transformation; enabling regulation to facilitate cooperation with market participants; the presence of benchmark issues and competitive pricing between markets. (Batten, Hogan and Szilagyi 2009)

Encourage rating agencies. It is vitally important to expand the coverage of private issues by credit rating agencies both through the encouragement of regional ratings agencies and promotion of activity by global ratings agencies (Spiegel 2009: 24). Global and regional rating agencies both have their strengths and weaknesses, but the best strategy is likely to be one that encourages additional coverage by both. The key point is that requiring transparency at levels that facilitate rating agency coverage is likely to facilitate additional coverage by both forms of agencies. In any event the conflicts of interest that have challenged the independence and impartiality of ratings must be addressed.

Improve financial regulation and liberalize further. It is also important to develop a robust and safe domestic financial system to encourage both issuers and investors. Such a system would allow firms to issue offshore, as well as in foreign currencies. Many market imperfections in Asian markets are self-induced. For example, withholding taxes and legal constraints combine to segment markets from global capital (Jiang and McCauley, (2004).

Cooperate regionally to harmonize markets. A key conclusion is that, for many of Asian countries, improvements as a share of GDP are unlikely to be sufficient to obtain the scale economies necessary to achieve cost reductions that are adequate to successfully compete with offshore bond markets. Instead, achievement of adequate scale economies is likely to require cooperation at the regional level. Their best prospect would be some kind of regional currency basket that would mitigate the currency exposure of issuers, although not eliminate it entirely. (Spiegel 2009)

The example of European bond markets is instructive. Hale and Spiegel (2009) found that among non-financial firms in international bond markets there was a 35.3 percent increase in the probability of issuing in euro relative to pre-union national currencies subsequent to the launch of monetary union (EMU). Even before the adoption of the euro, the development of the European Currency Unit (ECU) led to a rapid expansion of ECU-denominated bond issues in Europe. The adoption of an Asian Currency Unit (ACU) might encourage increased local currency issuance within the region as well.

In addition, Asian nation will need to continue to make progress in regional harmonization of regulatory standards. This is the motivation for the promotion of "Asian Bond Standards," within the region. (Spiegel 2009)

6 SUPPORTING FINANCING FOR SMES

The post global economic crisis provides a strategic opportunity for the Asian governments to initiate policy measures not merely in response to short-term challenges facing trade financing for SMEs but to undertake a long-term rebalancing of financial sector reform and regulation in the region. SMEs have been rather neglected because Asian banks have focused more on consumer lending than the tougher SME business. In this respect, we argue that policy measures should be directed to enhance a more liberal and competitive financial and capital market, creating an enabling environment for SMEs by developing corporate credit information database and credit guarantee system nationally and regionally, nurturing entrepreneurship, technological and human resource development for SMEs to grow and prosper. Assisting SMEs has already been an important mitigation and recovery strategy for dealing with the global financial and economic crisis as SMEs serves as an important re-balancing growth strategy and employment safety nets.[12] However, stimulus packages directed toward SMEs have been mostly on achieving short-term goals such as boosting trade finance and domestic demand. The main recommendations put forth is that governments should conceptualize a broader, longer-term blueprint for financial sector reform, and align current policy measures to the long-term plan. Balance between the need for SME lending and stability (prudential) can be achieved through a holistic approach that strengthens supervision and capabilities.

Government support measures during GFC

The government stimulus and anti-crisis packages and the accompanying measures address the financing problems of SMEs. The measures put in place by countries can be classified into three different groups

[12] See Chapter 3 for a discussion of the role of SMEs.

(1) measures supporting sales and preventing depletion of SMEs' working capital - such as export credit and insurance, tax reductions and deferrals, and better payment disciplined by governments,

(2) measures to enhance SME's access to liquidity - mainly to credit through bank recapitalization and expansion of existing loan and credit guarantee schemes; and

(3) measures aimed at helping SMEs to maintain their investment level and more generally their capacity to respond to possible surge in demand in the near future through investment grants and credits accelerated depreciation and R and D financing.

The extension of and enhanced existing credit guarantee scheme is the most widely adopted measure. It is neither a long-term nor sustainable solution for SME trade financing as improvements in capital base, level of technology and human resource development are crucial to the long-term development of SMEs. Asia's financial institutions and financial systems have so far been largely unscathed by the global financial crisis. Unlike their counterparts in US and Europe, the region's financial institutions have had limited exposure to subprime assets and related financial products. Indeed, taking the cues from their experience of the Asian Financial crisis, Asian governments have taken steps to improve the soundness of the balance sheets of their banks. The ratio of non-performing loans on the bank balance sheets of various Asian countries was lower than that for the US, and the return on assets higher than of Japan or the US.

More generally, commercial banks have difficulty in finding bankable SMEs. Indeed, one important lesson learned from the measures taken in the aftermath of the Asian Financial Crisis is that forcing state banks to provide cheap and easy credit to SMEs without careful review is likely to result in resource misallocation. Mere provision of credit cannot ensure that SMEs will be successful. A key constraint for SMEs relates to technology and skills. The focus of assistance should be on long-term sustainable solutions, i.e. not just in helping SMEs to survive the crisis, but rather supporting the capacity for long-term survival and growth through entrepreneurship and productivity.

Role of government in easing credit flow to SMEs

The rationale for governments to raise credit flow to SMEs can generally be drawn from two broad themes – research showing SMEs' contribution to economic performance, and research showing the link between credit flow and economic performance. It is widely believed that SMEs play a crucial role in developing countries. Firstly, they may help alleviate poverty and, secondly, they may be one of the important contributors to innovation and sustainable growth. Empirical studies have also shown that credit to the private sector plays a crucial role in economic growth (Beck et al., 2000; Khan and Senhadji, 2000). This growth may be due to SME performance, as suggested by studies that attempt to explore the link between credit flow and SME performance. Utilizing cross-industry and cross-country data, Beck et al. (2005) found that improvement in financial development (as captured by the ratio of private credit to GDP) is associated with fast growth of industries that are characterized by smaller firm size for 'technological' reasons. It is thus not surprising that many governments have intervened in the financial sector to boost credit flow to SMEs. This section draws on past experiences of countries and specifically Singapore in examining the role that governments can play in this respect and to identify the lessons learnt.

Market failures related to information gaps, the need for coordination and collective action, and concentration of power imply that governments have an extensive role in supporting, regulating and sometimes directly intervening in the provision of financial services following the recent severe global financial and economic crisis. It is equally important that governments should conceptualize a broader, longer term blueprint for financial sector reform and align current stimulus measures to the long term plan. In this context, government intervention is necessary to correct market failures related to information gaps, the need for coordination and collective action. However, government actions in most countries are not effective. Measures that are effective in environments that have already strong institutions may fail elsewhere. At the same time, a well-functioning financial system itself is likely to contribute to the strengthening financial governance. A reform approach to financial sector policy that explicitly recognizes the importance of access can help ensure that financial development also makes financial systems more inclusive.

In prioritizing access policy, it is important to recognize the limitations of even a very efficient financial system supported by a strong contractual and information infrastructure, especially for developing countries. Greater financial access and institution building require a long-term commitment by political and economic elites as financial sector reform is generally embedded with political element as opening access to finance and greater competition in the financial market normally are disadvantaged economic elites. In the long-term, an inclusive and sustainable financial access would provide much positive benefits to all market actors and firms, including SMEs.

Recommended measures for supporting SME finance

To assist SMEs in coping with the impact of the crisis, many governments in Asia have intervened in the financial sector. However, while some of these intervention measures might address market failures, others might be going against market forces and be counter-productive to broader restructuring to raise financial institutions' stability. While market failures present a compelling rationale for governments to intervene in finance, governments should work with commercial forces to correct, rather than exacerbate, existing market failures. The most important role of government is not provision of finance, but to strengthen the institutional underpinnings of financial transactions. This requires improvements in legal and regulatory infrastructure, and in the information infrastructure that underpins the efficient operation of financial systems.

First and foremost, transition to a new and more stable financial market structure will require careful planning and international cooperation in order to avoid market distortions and to promote a revival of markets at a reasonable level of systemic risk. Existing response measures should then be aligned to this plan. For example, governments should consider reforming their subsidy programs to differentiate between financing needs of SMEs due to structural market failure and economic cycle. Also, loan guarantees need to be rethought. They should be designed in a way that minimizes moral hazard and should not distort the market. A clear exit strategy would also be needed to allow authorities to withdraw market support. All this requires a deep understanding about how various policies in different areas and for different purposes relate to one another. For example, raising SME lending with loan guarantees might be contradictory to efforts to raise the supervision in banks. Such an understanding would help improve the coherence of policies.

- Build banks' capacity in transaction technologies, and encourage innovation for banks to try out technologies that have comparative advantage in a certain institutional environment;
- Encourage foreign-owned banks as they have been shown to be more able to effectively use transaction technologies suited to SMEs; and
- Set up a consistent and accessible SME financial data base.

7 Conclusions and recommendations

All countries have received a wake up call from the present financial crisis. Fortunately, most in the Asian region have only been subject to an economic shock but that has been very harsh for investment goods suppliers. However, the disturbing experience of other countries that thought they had good systems for crisis avoidance and management shows that it is essential for Asian countries to take this opportunity to review their own systems. Many of these lessons can be implemented at the national level but some are regional issues and the experience of Europe suggests that there is a range of measures that can be implemented to improve both the ability to avoid crises and to withstand shocks. However, such measures will need to be coordinated with the ongoing work of the international institutions, particularly the Basel Committee, in improving not just macroprudential and microprudential stability but providing cross-border insulation and action as well.

Taken together, action across a broad front is required to avoid crises where possible and implement effective crisis management systems where it is not and also to deepen and broaden Asian financial markets, not simply on a country by country basis but as a steadily more closely integrating region.

Crisis avoidance is best tackled by:

- having a comprehensive structure of institutions with clear and non-overlapping objectives;
- improving micro-prudential monitoring through ‘smarter’ rather than simply more extensive regulation that ensures that financial institutions strive to be prudent in their own;
- establishing a mechanism for effective macroeconomic surveillance and action, ideally by having a clear structure of responsibility with a high level Systemic Stability Regulator with tools it can employ separate from monetary policy;
- reducing procyclicality of capital adequacy rules, capital buffers and accounting rules; and
- ensuring a prudent approach to the regulation of innovative financial products and improved influence over non-bank financial institutions; and
- Changing incentives, especially management compensation, moral hazard and incentives for regulators to act decisively to head off problems.

Crisis management is improved by

- having a coordinated and effective set of institutions that between them cover all phases of the crisis;

- ensuring there are ex ante credible means of handling failures in all financial institutions, particularly those that run across borders;
- implementation of an effective deposit insurance system; and
- improved resilience against shocks by substantial enhancement of regional mechanisms, inter alia through an Asian Financial Stability Dialogue.

Developing bond markets further can be achieved by: encouraging foreign participation, especially by multi-national institutions and corporations; improving government debt management, improving market infrastructure to allow issuers to shed maturity and currency risk as necessary; expanding the coverage of private issues by credit rating agencies; and cooperating at the regional level to achieve adequate scale economies; including developing a regional currency basket (ACU) that would mitigate the currency exposure of issuers and investors.

The following assistance to SMEs would be beneficial: build banks' capacity in transaction technologies; encourage innovation for banks to try out technologies that have comparative advantage in certain institutional environment; and encourage foreign-owned banks as they have been shown to be more able to effectively use transaction technologies suited to SMEs. Related reforms should also be encouraged, including: raising accounting standards and services; promoting SME training in areas such as financial reporting and proposal writing; strengthening the legal system; promoting public and private partnership in financing facilitations to SMEs; and setting up a consistent and accessible SME credit data base.

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Appendix 6.1: Financial Regulatory Supervision in Asia

Status of Financial Sector Surveillance and Regulation

	Entity with Regulatory Oversight			**Macro-prudential**
	Banks	**Securities & markets**	**Insurance**	**Responsibility**
Australia	Australian Prudential Regulation Authority (APRA)	Australian Securities and Investments Commission (ASIC)	Australian Prudential Regulation Authority (APRA)	APRA, collaborates with ASIC and RBA
PRC	People's Bank of China (PBoC); China Banking Regulatory Commission (CBRC)	PBoC; China Securities Regulatory Commission (CSRC)	PBoC; China Insurance Regulatory Commission (CIRC)	PBoC Financial Stability Bureau; cooperation with CBRC
Hong Kong	Hong Kong Monetary Authority (HKMA)	Securities and Futures Commission (SFC)	Office of the Commissioner of Insurance (OCI)	Hong Kong Monetary Authority (HKMA)
India	Reserve Bank of India (RBI): Board of Financial Supervision (BFS)	Securities and Exchange Board of India (SEBI)	Insurance Regulatory and Development Authority (IRDA)	RBI Financial Stability Unit
Indonesia	Bank Indonesia (BI)	BAPEPAM-Capital Market and Financial Institutions Supervisory Agency	BAPEPAM-Capital Market and Financial Institutions Supervisory Agency	Under discussion
Japan	Financial Services Agency (FSA)	Financial Services Agency (FSA)	Financial Services Agency (FSA)	Not clear
Korea	Financial Supervisory Service (FSS)	Financial Supervisory Service (FSS)	Financial Supervisory Service (FSS)	Bank of Korea (BOK) and FSS
Malaysia	Bank Negara Malaysia (BNM)	Securities Commission	Bank Negara Malaysia (BNM)	Bank Negara Malaysia (BNM)
Philippines	Bangko Sentral ng Pilipinas (BSP)	Securities and Exchange Commission (SEC)	Insurance Commission (IC)	Financial Sector Forum (FSF): BSP, SEC, IC and Phil. Deposit Ins. Corp.
Singapore	Monetary Authority of Singapore (MAS)	Monetary Authority of Singapore (MAS)	Monetary Authority of Singapore (MAS)	Monetary Authority of Singapore (MAS)
Taipei,China	Financial Supervisory Commission (FSC)	Financial Supervisory Commission (FSC)	Financial Supervisory Commission (FSC)	Financial Supervisory Commission (FSC)
Thailand	Bank of Thailand (BOT)	Securities and Exchange Commission (SEC)	Office of Insurance Commission (OIC)	Financial Institutions Policy Committee (FIPC) chaired by BOT

Source: Websites of regulatory agencies