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A Perspective of ASIAN Financial Sector under the Global Financial Crisis: Assisting SMEs through Financial Sector Intervention in Asia

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Abstract

The global financial crisis has hit SMEs hard. Besides facing declining demand, the sector's access to bank loans and working capital has also been limited due to financial institutions' increased risk aversion and decreased liquidity. In response, Asian governments have provided various forms of assistance, many of which encourage the supply of funds by intervening in the financial sector. Examples of such measures include loan guarantees, interest subsidies on loans, and setting targets for SME lending. However, such measures contribute little and may even be counter-productive to the long-term goal of a stronger financial sector that is more able to meet SME funding needs and yet maintain stability. The present paper sets out to identify supervisory and regulatory strategies that governments in the region can adopt to achieve this goal. To this end, we draw upon past studies and the experiences of various countries, specifically Singapore, to examine the role of government intervention in the financial sector and its impact on SMEs. The main recommendation put forth is that governments should conceptualize a broader, longer-term blueprint for financial sector reform, and align current response measures to the plan. Balance between the need for SME lending and stability can be achieved with commitment to a holistic approach that does not only focus on SMEs but the financial sector as a whole. SME-specific policies such as strengthening transaction technology capabilities should be complemented with broader efforts to improve the performance and resilience of financial institutions. Also, financial sector reforms should be complemented with improvements in other areas, including the legal system and SME policies such as training in proposal writing and accounting.

Introduction

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The global economic downturn was especially harsh on export-dependent Asia[3]. The G3 (the US, Europe and Japan), which together account for 43.4 per cent of the region's exports[4], all plunged into recession, and hence have been consuming less. From peak to trough, the region's exports plummeted by over 30%, and GDP, excluding that of China and Japan, contracted by an average of about 6.2%, which is comparable to the 8.3% contraction during the 1997 Asian financial crisis (Heng, 2009). The impact has been made worse by the global credit crunch, which reduced the availability of funds. Non-performing loans and lack of liquidity in financial markets have reduced bank capital, and consequently interbank transactions. Further draining the credit pool, investors from advanced countries have withdrawn funds to repair balance sheets back home.

With weaker export orders and reduced prices due to falling exchange rates[5], many enterprises in Asia are facing declining overall profits. Efforts to raise sales through enhancing capabilities such as marketing, investment, and R&D have been limited by tightening credit. As a result, many export-oriented firms have been struggling to stay afloat by downsizing and turning to domestic markets, which unfortunately have softened too. Service exporting sectors such as travel and tourism, and information technology (IT) have been affected as well. Hence, a large number of businesses have shut down or gone bankrupt. Over 100,000 factories have winded up in southern China alone (Shrivastava, 2009). Employment has also fallen in many Asian countries, especially but not limited to the manufacturing sector. Other sectors that have seen job losses include construction (e.g., Indonesia, Korea, and Taipei), transport and storage (e.g., Indonesia), and retail (e.g., Korea and Taipei) (ADB, 2009).

In response, many governments in Asia have rolled out measures to help SMEs cope with the crisis. One of the most significant perceived problems seems to be the lack of funds, which governments have addressed mostly by introducing and/or enhancing loan schemes and loan guarantees. Examples of specific measures are subsidizing interest rates and raising exporters' bank limits (e.g., Pakistan), providing

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[3] Exports account for about half of GDP in Asia, which comprises People's Republic of China; Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; Taipei, China; and Thailand. Although there is much variation – Singapore's exports reached 186% of GDP in 2007 while Indonesia's were less than 30% – it is clear that exports are a significant driver of growth in the region. See: Oxford Economics, Quarterly Model, February 2007.

[4] In 2005, the EU accounted for 15.9% of Asia's exports; the US, 17.6%; and Japan, 9.9%. Asia refers to the People's Republic of China; Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; Taipei, China; and Thailand. See: International Monetary Fund, Direction of Trade Statistics CD, January 2007.

[5] Most emerging Asian currencies have fallen sharply against the US dollar. From 1 July 2008 to 30 March 2009, the Korean won fell 24.9%; the Indonesian rupiah, 20.2%; the Indian rupee, 15.4%; the Malaysian ringgit, 10.6%; the Singapore dollar, 10.5%; the Philippine peso, 7.0%; the Thai baht, 6.1%; the Vietnamese dong, 5.3%. See: ADB, 2009.

shipment credit for exports with interest subvention (e.g., India), simplifying lending requirements for SMEs (e.g., Indonesia), and opening special service credit outlets at banks for SMEs (e.g., China) (ADB, 2009, p. 18). This focus on SMEs is unsurprising given that in Asia the sector contributes greatly to exports, which are the main engine for growth in many Asian countries, and employment, which is crucial for social stability and domestic demand. To illustrate, in East Asia, the sector accounts for 40-90 per cent of employment (see Table 1) and more than one-quarter of exports in countries in the region (Wengel & Rodriguez, 2006).

Table 1: Contribution of non-agricultural SMEs in selected Asian economies

Country	**% of all firms**	**SME workforce as % of total employment**
Brunei Darussalam	98	92
Cambodia	99	45
Indonesia	98	88
Lao PDR	99.8	n.a.
Malaysia	84	39
Myanmar	96	78
Philippines	99	66
Singapore	91	52
Thailand	96	76
Viet Nam	96	85
China	99	78
Japan	99	78
Republic of Korea	99	73

Source: Asasen et al. (2003, p. 32)

However, such measures to raise access to finance contribute little and may even be counter-productive to the long-term goal of a stronger financial sector that is more able to meet SME funding needs and yet maintain stability. For instance, ill-designed loan guarantees might lead to moral hazard on the part of the lenders and borrowers, and might also increase fiscal pressures – two consequences that are particularly undesirable given that the former represents the source of the current financial crisis, and the latter would worsen government budgets that have already been strained because of stimulus measures. In addition, from a strategic perspective, these outcomes raise the concern of sustainability. Unlike during the Asian financial crisis, where the impact of the meltdown more or less remained within the region and thus exports to the relatively unscathed rich world could help fuel Asia's recovery, this time there seems to be a general consensus that only profound restructuring of the economy, including the financial sector, can bring the region's economies back on track.

The present paper sets out to identify forward-looking intervention strategies that governments in Asia can adopt to reform the financial sector to ease credit flow to

SMEs and enhance the sector's resilience to economic hiccups. To this end, we first seek to understand the linkages between the financial sector and SMEs. The first section explores the role that finance plays in determining the survival and performance of SMEs. Next, we examine why SMEs typically find it harder to gain access to credit as compared to larger enterprises, and the factors that influence this. Drawing upon past studies and the experiences of various countries, specifically Singapore, we then explore the role of government intervention in improving these factors to encourage lending to SMEs. The final section suggests policies that can achieve this sustainably. The main recommendation put forth is that governments should conceptualize a broader, longer-term blueprint for financial sector reform, and align current response measures to the plan.

Role of finance in SMEs

Empirical studies have demonstrated that financing is more of a concern for SMEs than for large firms. Ayyagari et al. (2006) propounded that not only are SMEs more likely to report financing as a major obstacle compared to large firms, they also seem to be more affected by financing constraints than large firms. Ayyagari and her colleagues found that among enterprises with complaints about financial issues, smaller sized firms tend to have lower growth rates. Similarly, Beck et al. (2005) showed that while financing constraints reduce the growth of large firms by an average of 6 percentage points, they account for 10 percentage points of growth reduction in small firms. Further, when the researchers looked at specific forms of financing such as export, leasing, and long-term finance, they also found that lack of availability to these constrained small firms substantially more than large firms. Theoretical explanations for these results can be generally categorized under two themes: why finance is important to SMEs, and why SMEs generally find it harder to gain access to finance as compared to large firms. This section and the next address these areas separately.

Many business surveys have identified access to credit as the most important factor determining the survival and performance of SMEs (see, for example, UN, 2001). Cost-effective loans allow SMEs to make productive investments and purchase new technology, which are essential in helping their business grow. The empirical evidence seems to support this. Utilizing a cross-country survey, Warner (2001) showed that countries that have a higher level of innovation also tend to score better on the availability of finance for start-ups. Innovation was measured with questions such as whether respondents thought their country is a technological leader, and whether respondents thought their country had incentives in place to encourage innovators.

Problems SMEs face in gaining access to finance

From the perspective of financial institutions, there are two main reasons why SMEs face lower access and higher costs to credit compared to large firms. The first reason has to do with cost effectiveness. Financial institutions incur fixed costs with each loan due to the need for appraisal and processing in the pre-contract stage, and supervision and collection after the loan is granted. Hence, banks would rather lend larger amounts of credit to larger enterprises as the cost per dollar loaned would be significantly lower. Furthermore, the evaluation and monitoring costs tend to be higher for loans to small firms due to the shortage of detailed and reliable information, such as credit history and audited financial statements and reports, which SMEs generally are unable to produce.

Secondly, loans to SMEs are usually perceived by financial institutions as more risky than loans to large firms. The lack of information partially accounts for this too. In general, small firms are less able to prove their ability to return loans, as they lack records of previous loan repayments as well as of consistent profits. In addition, the rate of failure among new SMEs is high relative to large firms. As a result, banks prefer to conduct collateral-based lending rather than cash-flow analysis when dealing with SME borrowers. Leeds (2003) noted that collateral requirements for small firms in developing nations often exceed 150% of the value of the loan, an amount most small business owners, entrepreneurs or farmers cannot offer. Not helping is the weak judicial system in many developing countries, which has not only caused small firms to be unable to pledge their home or land as collateral because they lack valid legal title to it (Hernando, 2000), but also dampened banks' confidence in enforcing their lender rights.

Factors affecting SME access to finance

From the foregoing section, we can identify a range of factors that impede SMEs' access to finance. These factors can generally be labeled as due to market failures or due to market forces, and internal or external to the financial sector. The first method of categorization has important policy implications as it is widely agreed that governments should generally only intervene in matters of market failure, doing otherwise would distort the market and cause problems such as moral hazard. The current crisis, however, has emphasized the importance of regulation to prevent banks from taking too much risk. How governments should reconcile this dilemma is discussed below in the recommendations section. The second method of categorization is useful as it shows that the issue of SME access to finance does not only concern the financial sector. The problem is a multi-faceted one that requires a multi-pronged solution. While this paper deals mostly with financial sector reforms, we also argue that these reforms need to be coupled with public measures in other areas such as SME policy and the legal system to ensure effectiveness. This section first explains the factors external to the financial sector, then the ones internal to it. For each factor, we also discuss whether it is due to market failure or not.

Factors external to the finance sector

1) SME factors

Reasons for SME lack of access to finance originating from SMEs themselves mainly have to do with their inability to show their credit-worthiness and to provide collateral. Besides their limited ability to show credit history and produce well-documented financial reports, SMEs also lack proposal writing skills that are especially essential for new businesses with no financial history. Assuming that this represents a type of imperfect information problem, it can be argued that this factor is due to market failure. SMEs' inability to meet collateral requirements, however, cannot be considered as such. It is normal market behavior for banks to raise the cost of lending should they perceive risks to be high.

2) Legal system

Well-defined and effectively enforceable property rights are essential for businesses to be able to use their houses or land as acceptable collateral. Creditor rights also need to be clear and enforceable for banks to execute collateral and enforce contracts when the lender defaults. Bankruptcy law and enforcement are also critical. For example, the feasibility of using collateral to secure loans would depend on whether creditor rights can be exercised in cases of bankruptcy. Empirical studies have demonstrated that enterprises in countries where financial development is more advanced and property rights are stronger have higher levels of investment from formal, external sources, and lower levels of finance from development banks, government and other informal sources (Beck et al., 2004). The findings from one study suggest that although a weak legal system influences financing for all firms, SMEs may be disproportionately affected. In a cross-country analysis, Beck et al. (2003) found that the impact of financial, legal and corruption problems constrained the growth of small firms more relative to large firms. Flaws in the legal system can arguably be categorized as due to market failures as they do not directly affect the business of lending but constitute the environment in which it takes place.

3) Information environment

There are two components of a nation's information environment that are relevant here – the accounting environment and the availability of information on credit history (Berger & Udell, 2004). Accounting environment refers to the presence of high level account standards and the availability of reliable, autonomous accounting services. This infrastructure is necessary to help SMEs create financial statements, and for banks to effectively execute various aspects of the loan application processes. For instance, financial covenants would be of little use if the financial ratios calculated from bank financial statements are inaccurate.

The availability of credit history information is important for banks to efficiently and accurately evaluate the risk profile of a borrower. Several studies have showed that the extent to which leaders share information about payment performance can have a significant impact on the availability of finance (see, for example, Jappelli & Pagano, 2001; and Love & Mylenko, 2000). More specifically, Jappelli and Pagano (2001) empirically demonstrated that countries with stronger formal, third-party information sharing have larger bank lending relative to GNP, and lower country-level credit risk.

Depending on the premise, a lack of information can be categorized as either due to market failure or market forces. If the lack of information is due to a limited ability and resources to provide (on the part of SMEs) and process (on the part of banks) the information, it can be considered as a market failure. However, if the lacking is due to an absence of information content regardless of the level of capability to document this information, for instance in the case of a new business, then it would be in line with market mechanisms for banks to perceive the risk as higher and take more precautions.

Factors internal to the finance sector

1) Financial institution structure

Recent research provides some evidence suggesting that the structure of financial institutions has an effect on SME credit availability. We examine the literature on three aspects of financial institution structure here. While existing financial sector structures might in organization theory represent the result of the "survival of the fittest" mechanism, there are other influencing factors, especially government regulations such as liberalization policies. Thus, firms that "survive" might not represent the most efficient. It is therefore crucial to examine the environmental factors before determining whether a given structure is due to market forces or market failure, and consequently whether the government should intervene or not.

The first aspect is size. Large institutions have been found to lend to larger, older, and more financially secure SMEs (Hayes et al., 1999), and seem to base their evaluations of credit-worthiness more on financial ratios than on prior relationships (Cole et al., 2004). The theoretical explanation given is that large institutions have comparative advantage in processing "hard" or quantitative information, which more established SMEs are more able to provide, due to economies of scale. However, large financial institutions may not be as efficient as their smaller counterparts in processing "soft" or qualitative information, such as in relationship lending which is more favorable for SMEs, as it is hard to calculate and transmit through their extensive network of communication (Stein, 2002). However, Berger and Ubell (2004) argue that this might not be sufficient to imply that governments should encourage small financial institutions to raise SME access to finance. This is because past studies mainly focused on financial statement lending, neglecting other kinds of technologies that use "hard" information and may be feasible for assessing SMEs that lack information transparency.

The second aspect of the research on financial institution structure is concerned with whether state or private ownership is more conductive to SME lending. It has been argued that state-owned financial institutions theoretically are more able to supply funds to SMEs as they operate with government subsidies and usually have mandates to provide additional credit to SMEs. However, it has been shown that in practice, this is not always the case. State-owned institutions might be less efficient than privately-owned ones because of their lack of market discipline. Bureaucratic structures might also be an obstacle. To illustrate, if the incentive structures for loan officers are based on loan performance, they can be expected to be less likely to lend to smaller, more risky enterprises. Further, if state-owned institutions with lending subsidies and lax collection mechanisms maintain large market shares, they may “crowd out” more efficient privately-owned institutions and decrease the overall availability of credit.

Lastly, some studies have compared foreign-owned versus domestically-owned institutions in terms of extent of lending to SMEs. Most of the findings show that foreign-owned banks, individually or greater shares for these banks, are correlated with larger credit availability for SMEs (e.g., Dages et al., 2000; Clarke et al., 2002; Berger et al., 2004). This can be explained by the argument that foreign-owned institutions are typically part of large organizations, which gives them advantages in transactions lending to some SMEs because of superior information technologies for collecting and assessing “hard” information. Indeed, research has shown that the performance of foreign-owned banks in developing nations, as compared to in developed nations, may be because of greater access to technology. However, some studies have found the opposite, that foreign-owned banks are considerably challenged in providing SME loans (e.g., Berger et al., 2001). This might pertain more to relationship lending, where institutions that are foreign-owned and larger might have difficulties understanding the local culture and transmitting “soft” information overseas (Buch, 2003).

2) Transaction technology

Financial institutions might also face difficulty in supplying credit to SMEs due to shortcomings in capacity to utilize various technologies, or because the technologies they use do not suit the environment, the financial institution’s comparative advantages, or the borrower, i.e. SMEs. This can be categorized as due to market failures as the switch to suitable technologies and increased ability to utilize these technologies help improve the condition of imperfect information.

Lending technologies can broadly be described as based on “hard” information (or transaction technologies) or “soft” information (or relationship lending technology). It is often argued that relationship lending suits SMEs more while transaction technologies suit large firms more because SMEs are not as able to provide rigorously obtained financial information. But to recommend that encouraging relationship lending can raise SME access to credit is inadequate as such a technology is labor-intensive and costly, which may deter banks from adopting it, and/or drive them to pass on the costs to the borrower in the form of higher fees or interest rates.

Alternatively, Berger and Udell (2004) point out that some transaction technologies can also enhance SME lending by helping overcome problems of limited information. Financial statement lending might not be feasible for SMEs in developing countries due to the need for well-documented financial statements. However, other technologies that also use “hard” information such as small business credit scoring, asset-based lending, and factoring may hold the key to raising SME access to credit.

Evaluations using small business credit scoring are based on quantitative information about the owner of the SME, rather than the SME itself, which is mainly drawn from consumer data (e.g., personal income, debt, financial assets, and home ownership) provided by consumer credit bureaus. This method, however, requires a strong information environment and large institution size. The empirical evidence appears to confirm that such a technology can raise credit availability. Frame et al. (2001), for instance, found that in U.S. small business credit scoring seems to have led to an overall rise in lending, and that this increase is based more on calculative methods rather than discretion in underwriting.

Asset-based lending occurs when the lender looks to the underlying assets of the firm, which are taken as collateral, as the main source of repayment, instead of assessing the overall creditworthiness of the borrower. For this method to work effectively, there must be a clear and enforceable set of commercial laws governing security interests. The legal and bankruptcy system must also allow the preservation of collateral priority in liquidation and reorganization.

Factoring involves purchase of accounts receivable by a lender known as a factor. Under factoring, the underlying asset, accounts receivable, is sold to the lender (the factor). Thus, title to the asset passes from the borrower to the lender. In this case, underwriting focuses on the value of an underlying asset rather than the overall value/risk of the firm. This technology may be valuable in countries with weak legal systems, and also in countries with weak information environments if the receivables are linked with large obligators located in strong information environments.

This sub-section has showed that depending on the circumstance, some transaction technologies might be able to effectively facilitate SME lending. For example, small business credit scoring may be feasible in strong information environments; asset-based lending may be feasible in countries with strong legal systems; and factoring may be feasible in weak environments but only if the receivables are of high quality.

Role of government in easing credit flow to SMEs

The rationale for governments to raise credit flow to SMEs can generally be drawn from the literature under 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 (e.g., Thorsten et al., 2000; Khan & 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 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.

The case of Singapore

The Singapore experience is a case in point. Singapore was adversely affected by the global economic crisis as its trade ratio to GDP is almost 3 times. To counter this severe decline of its export and the resulting impact on jobs and companies, the government launched a massive stimulus package totaling SGD 20.5 billion in March 2009. The package has five main thrusts: 1) to preserve jobs; 2) stimulate bank lending; 3) enhance business cash-flow and competitiveness; 4) support families; and 5) develop infrastructure, education and healthcare (Ministry of Finance, 2009). Although we will only discuss the second point here as it is directly relevant to the topic at hand, it is important to note the holistic approach of the government in not only raising lending but also helping businesses innovate and increase their efficiency, as well as ensuring inclusive growth through social policies. This represents a self-help approach that would help reduce reliance on the government and enhance the sustainability of growth.

In the budget speech 2009, the Ministry of Finance pointed out that the level of risk aversion shown by banks in Singapore during the crisis was lower than the norm in downturns. This suggests that the government views the dramatic decline in credit as at least partially due to market failure, as opposed to purely due to market forces, and hence requires intervention. The report said: "A decline in credit occurs in every recession both because the demand for credit goes down, and because banks become more cautious over the prospects of loan recovery. However this time we have to expect a more severe contraction if nothing is done." (Ministry of Finance, 2009, p. 20) To address this issue, the government introduced the Special Risk-Sharing Initiative (SRI). Recognizing that credit decisions are best made by banks that posses the necessary expertise, the government chose not to take over the lending business. Instead, it set out to enhance its role in sharing lending risks with financial institutions. Specific assistance to SMEs was provided through raising the government share of risk in SME loan schemes. The government also decided to help larger companies, especially mid-sized ones, by extending loans to suitable companies in which the bulk of risks is taken on by the government. It also, in an unprecedented move, decided to share in the risks of trade financing.

However, how these stimulus measures fit into the long-term plan of financial sector reform is unclear as there has been virtually no overt indication of efforts to prevent moral hazard. It seems there have only been guiding principles and no concrete regulations: "The government indeed expects that the banks will take advantage of these schemes, and play their responsible part to ensure that viable companies continue to get the funding they need to see them through the crisis," the report stated (Ministry of Finance, 2009, p. 24). Nonetheless, as compared to some developed countries, the extent of government intervention in Singapore seems to be small. There has been no nationalization of banks or creation of publicly-owned financial institutions. This is in line with the self-help approach of the government which may mean retracting intervention when the economy recovers might be relatively easier.

Already, the improving economy at the end of 2009 has helped the government to scale back on initiatives it introduced late 2008 to share the risk on business loans and underwrite lending in areas badly hit by the credit crunch. The changes announced on 28 December 2009 included reducing the size and shortening the tenures of loans. The revisions will start from February 1, 2010 and the government expects the program to continue to the end of January 2011. It is envisaged that as credit conditions return to normal, the government will revise the terms in tandem, so as to ensure that commercial lending is preferred over government loans for low-risk companies. Within this policy revision, under the Bridging Loan Program, the quantum limit for firms seeking loans for working capital will be reduced from SGD 5 million to SGD 2 million. This reduced amount still meets the needs of 98 per cent of

SMEs and the share of government's risk for this program will be adjusted from 80 per cent (during the crisis) to presently 50 per cent. The maximum loan tenure will be revised from 4 to 2 years. Under the Loan Financing Scheme which deals with trade financing, the government will continue to take on 75 per cent of the default risk and to support loans of up to SGD 15 million. The only change under this Loan Financing Scheme will be a slight increase in insurance premiums that firms will have to pay. The Government-sponsored Special Risk-Sharing Initiative (SRI) has been lifesaver for many firms. More than 13,000 companies, more than 90 per cent of them are SMEs, have benefited from SRI. The Singapore Ministry of Finance said that the SRI and the business financing schemes have "catalyzed" more than 14 ,000 firms worth about SGD 8 billion since it was introduced in December 2008.

Exiting the market may also be easier for the government due to its long-term plan to help the financial sector recover and expand. With a better performing and more resilient financial sector, less government intervention would be needed. To this end, the Singapore government has laid out five strategies (Goh, 2009). Firstly, it plans to maintain regulation of the sector. The Monetary Authority of Singapore's (MAS) regulatory framework has been regarded as strict as it exceeds international standards in some areas such as capital requirements. As this approach has proven effective in addressing the impact of business cycles, the government has decided to retain it. However, MAS will still continue to fine-tune its supervision role. Secondly, the government plans to help financial institutions grow by tapping on the escalating demand for wealth management products in Asia. The third strategy is also associated with the growth of Asia. It entails encouraging financial institutions in Singapore to take advantage of the rising need for credit to fund massive infrastructure projects in Asia. Fourthly, the government will work towards enhancing its and the industry's capabilities in managing risks for derivative products. It will also strength the market infrastructure by enhancing the robustness of the interbank rate fixing system and its reliability in representing market conditions. Lastly, the government has pledged to build the talent pool and labor capacity through measures such as internship opportunities for fresh graduates and training schemes. While there are no specific components in this strategic plan dealing with SME access to credit, it is still relevant to the goal of this paper as a stronger financial sector can be expected to be associated with more lending to companies, including SMEs.

To summarize, a few important lessons on the role of government in easing SME credit flow can be learned from the Singapore experience. Firstly, governments should not only target policies at increasing SME lending but also focus on longer-term and broader goals of recovering and strengthening the financial sector and economy. Second, loan guarantees should be planned with an exit strategy in mind. This would help reduce moral hazard on the part of lenders and borrowers, as well as help in the transition to a stronger, post-crisis economy.

Conclusion and recommendations

Although this paper focuses on the aspects of financial sector intervention that specifically pertain to SME access to finance, a brief discussion of the necessary type of post-crisis macro level reforms is relevant here as such reforms would maintain the health of the financial sector and directly affect the level of lending in general. It would also be helpful as the soundness of SME-specific measures depends on how aligned and integrated they are with the broad, long-term financial restructuring plan.

Although financial sectors in Asia were relatively less exposed to toxic assets, there are important lessons to learn from the experience of the West. Governments in Asia can consider adapting and implementing the following reforms:

- Expand surveillance
- Broaden the concept of ‘systemic’ risk to include leverage, funding and interconnectedness
- Encourage incentives that support systemic stability
- Capital, provisioning and liquidity norms should be more demanding in good times to build buffers that in bad times can help to offset pro-cyclical pressures
- Strengthen accountability through enhancing regulators’ capacity to gather information about financial institutions, or ensuring that investors get more disclosure (IMF, 2009)

The above reforms are aimed at enhancing the stability and resilience of the financial sector. However, to raise the level of lending, such reforms need to be balanced with efforts to boost the performance of the financial sector. From the Singapore case study, governments in Asia can achieve this through sourcing for new sources of opportunities for growth such as the growing wealth in Asia.

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.

Banks are the top source of credit for SMEs in developing countries, so what is needed is more finance, not less. However, there needs to be intervention to raise the qualitative standard of finance. From the discussions delivered in this paper, the following recommendations can be identified:

1) Build banks' capacity in transaction technologies, and encourage innovation for banks to try out which technologies they have comparative advantage in and that suits the environment.
2) Encourage foreign-owned banks as they have been shown to be more able to effectively use transaction technologies suited to SMEs

As the section on factors affecting SME access to finance has shown, there are also obstacles that fall outside the financial sector. Thus, financial sector reforms should also be complemented by reforms in other areas:

1) Raise accounting standards and services
2) SME training in areas such as financial reporting and proposal writing
3) Strengthen the legal system
4) Public and private partnership in financing facilitations to SMEs
5) Set up consistent and accessible SME financial data base

References

ADB. (2009). *Enterprises in Asia: Fostering dynamism in SMEs*. Key Indicators for Asia and the Pacific 2009 Special Chapter. Retrieved December 20, 2009 from http://www.adb.org/Documents/Books/Key_Indicators/2009/Part-I.asp

Ayyagari, M., Demirgüç-Kunt, A., & Maksimovic, V. (2006). *How important are financing constraints? The role of finance in business environment*. World Bank Policy Research Working Paper No. 3820. World Bank, Washington, D.C.

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2005). Financial and legal constraints to growth: Does firm size matter? *The Journal of Finance*, 60(1), 137-177.

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2003). Financial and legal constraints to firm growth: Does size matter? *World Bank Working Paper*, 2784.

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2004). Bank competition and access to finance: International evidence. *Journal of Money, Credit, and Banking*, 36, 627-648.

Berger, A. N., Klapper, L. F., & Udell, G. F. (2001). The ability of banks to lend to informationally opaque small businesses. *Journal of Banking and Finance*, 25, 2127-2167.

Berger, A. N., & Udell, G. F. (2004, October). *A more complete conceptual framework of SME finance*. Paper presented at the World Bank Conference on Small and Medium Enterprises: Overcoming Growth Constraints, Washington DC, U.S.A.

Buch, C. M. (2003). Information versus regulation: What drives the international activities of commercial banks? *Journal of Money Credit and Banking*, 35, 851-869.

Clarke, G., Cull, R., & Peria, M. S. M. (2002). How does foreign bank participation affect access to credit by SMEs? Evidence from survey data. World Bank Working Paper. Retrieved December 29, 2009 from http://www.iadb.org/res/publications/pubfiles/pubS-FDI-5.pdf

Cole, R. A., Goldberg, L. G., & White, L. J. (2004). Cookie-cutter versus character: The micro structure of small business lending by large and small banks. *Journal of Financial and Quantitative Analysis*, 39, 227-251.

Dages, B. G., Goldberg, L., & Kinney, D. (2000). Foreign and domestic bank participation in emerging markets: Lessons from Mexico and Argentina. *Federal Reserve Bank of New York Economic Policy Review 6*, 3, 17-36.

Goh, C. T. (2009). *The future of the financial sector in Singapore – Riding the challenges, emerging stronger*. Speech given at the 36th Association of Banks of Singapore Annual Dinner, June 26, 2009, Meritus Mandarin, Singapore.

Hayes, G. W., Ou, C., & Berney, R. (1999). Small business borrowing from large and small banks. In J. L. Blanton, A. Williams, & S. L. W. Rhine (Eds), *Business access to capital and credit* (pp. 287-327), A Federal System Research Conference.

Heng, S. K. (2009, October). *The global financial crisis: Impact on Asia and policy challenges ahead*. Paper presented at the Federal Reserve Bank of San Francisco Asia Economic Policy Conference, San Francisco, U.S.A.

Hernando, S. (2000). *The mystery of capital: Why capitalism triumphs in the West and fails everywhere else*. New York: Basic Books.

IMF. (2009, February). *Lessons of the financial crisis for future regulation of financial institutions and markets and for liquidity management*. Retrieved on December 20, 2009, from http://www.imf.org/external/np/pp/eng/2009/020409.pdf

Jappelli, T., & Pagano, M. (2000). Information sharing in credit markets: The European experience. *CSEF Working Paper*, No. 35.

Leeds, R. S. (2003). *Financing small enterprise in developing nations*. New York: Transitional Publishers, Inc.

Love, I., & Mylenko, N. (2003). Credit reporting and financing constraints. *World Bank Policy Research Working Paper*, 3124.

Ministry of Finance. (2009). *Budget speech 2009*. Retrieved January 14, 2009 from the Ministry of Finance website: http://www.mof.gov.sg/budget_2009/speech_toc/index.html

Stein, J. C. (2002). Information production and capital allocation: Decentralized vs. hierarchical firms. *Journal of Finance*, 57, 1891-1921.

Shrivastava, A. (2009). The end of export-led growth. *Himal Southasian*. Retrieved June 23, 2009 from http://www.himalmag.com/The-end-of-export-led-growth_nw2913.html

United Nations (UN). (2001, October). *Improving the competitiveness of SMEs in developing countries: The role of finance to enhance enterprise development*. United Nations Conference on Trade and Development, Geneva.

Warner, A. M. (2001, October). *Small and medium sized enterprises and economic creativity*. Paper presented at the United Nations Conference on Trade and Development, Geneva.

Wengel, J., & Rodriguez, E. (2006). SME export performance in Indonesia after the crisis. Small *Business Economics*, 26, 25-37.