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Asian Development Bank

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Abstract

Small and medium enterprises (SMEs) stimulate domestic demand through job creation, innovation, and competition; thus, they can be a driving force behind a resilient national economy. In addition, SMEs involved in global production supply chains have the potential to encourage international trade. Prioritizing SME development is therefore critical for promoting inclusive economic growth in most economies in Asia. Adequate access to finance is crucial for SMEs to survive and eventually grow beyond their SME status. In Asia, the reality is that SMEs have poor access to finance. It is one of the core factors impeding SME development. Information asymmetry between lenders and SME borrowers increases adverse selection and moral hazard risks for financial institutions, and is responsible for widening the supply–demand gap in SME financing. Given the diversified nature of SMEs, there is no one-size-fits-all financing solution. The improvement of lending efficiency and the diversification of financing modalities can help expand SMEs' access to finance, particularly given the largely bank-centered financial system in Asia. This paper discusses a new regime of SME finance amid an era of global imbalances, with empirical analyses of bank financing for SMEs in select Asian countries.

Keywords: Global imbalances, financial inclusion, access to finance, growth-oriented SMEs, SME finance, supply–demand gap, diversified financing

JEL Classification: F43, G01, G21, M13

1.   Awareness of the Issues

1.1   Global Imbalances and SMEs

While the global economy is being driven by the strong growth of emerging Asian countries, continuing global imbalances raise concerns that the current growth pattern in Asia may not be sustainable. Global imbalances are often identified as the result of current account deficit and surplus countries coexisting. The most well-known example is the huge surplus of the People's Republic of China (PRC) against the sharp deficit of the United States (US). High domestic savings levels, especially corporate savings, and low private investment and consumption in the surplus countries are viewed as critical factors causing such imbalances.

In contrast with advanced economies, the growth of developing Asia has been led by extra-regional exports,[1] which are generally accompanied by weak domestic demand backed by low domestic investment and consumption. If trade partners, especially advanced economies, continue to fall into chronic economic slumps as a result of global imbalances, then countries with a growth pattern that relies heavily on extra-regional exports will quickly reach the limit of their growth potential.

The one-sided capital flows from advanced to emerging economies can worsen the condition of global imbalances. Some argue that the quantitative easing (QE) measures implemented by advanced economies such as the US are having spillover effects in emerging Asian countries. The ample money generated by QE in advanced economies will naturally move to emerging economies as speculative funds, especially in the rapidly growing Asian region. This brings excessive liquidity into emerging economies and generates asset price hikes and currency appreciation, which creates the foundation for a bubble economy with the potential to develop into a financial crisis. Most emerging Asian economies are being confronted with this negative scenario. Therefore, they tend to strengthen their capital controls and accumulate foreign currency reserves as countermeasures to excessive capital inflows and possible abrupt outflows.[2]

Economic growth in Asia has made global imbalances more pronounced and lured large amounts of speculative money from abroad. Emerging Asian economies' response of capital controls and currency reserve accumulation further complicates the needed rebalancing of the global economy. As their growth patterns generally rely on extra-regional exports, they are vulnerable to long-term growth trends due to increasing uncertainty over the state of advanced economies. To break the vicious circle arising from global imbalances, it is necessary for policymakers in emerging Asia to (i) encourage the transformation of short-term capital inflows into long-term capital stability and (ii) shift the growth pattern from extra-regional and export-oriented to domestic-demand-led and/or based on intraregional trade in order to promote sustainable and stable economic growth.

To this end, the creation of a robust, resilient, and growing industrial base should be a prioritized policy agenda in Asian countries. Fostering small and medium enterprises (SMEs) as growth entities, rather than weak entities, at the national level is a key issue for realizing a balanced regional economy in Asia.

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[1]   The direction of exports from emerging Asia is 30.8% to developing Asia ex PRC; 36.1% to Japan, the US, and the European Union (EU); and 20.6% to others (ADB 2011).

[2]   For instance, Bank Indonesia stopped selling 1-, 3-, and 6-month central bank certificates (SBI) to control capital flows from abroad. As for foreign currency reserves, the PRC's accumulated external reserves reached the equivalent of $2.8 trillion in 2010, the highest in the world.

SMEs are a driving force of economic and social stability due to their quantitative impact on the national economy and the empirical effects of creating jobs, fostering a competitive business environment, and expanding the industrial base (Table 1). They can also help vitalize rural economies and play a pivotal role in promoting intraregional trade.

SMEs often drive local economies through the formulation of an SME cluster, which is an assembly of SMEs in the form of a supply chain with mutually complementing production processes and sales. Clusters have the advantage of stimulating competition, enhancing production efficiency and quality, facilitating start-up businesses, and increasing access to external economic agents such as raw material suppliers, skilled workers, trade partners, and financial institutions.[3] Sandee (1999) evaluated case studies showing that SME clusters, especially those that are export-oriented, had enabled SMEs to sustain relatively good performances even during and after the 1997/98 Asian financial crisis.

Table 1: SME Conditions in East and Southeast Asia

	Number of Enterprises (% of total)	Number of Employees (% of total)	Contribution to GDP (%)
East Asia			
Japan	99.7 [06]	69.4 [06]	47.7 [08]*
Korea, Rep. of	99.9 [09]	87.7 [09]	47.6 [09]
China, People's Rep. of	99.0 [08]	75.0 [08]	58.5 [08]
Southeast Asia			
Brunei Darussalam	98.4 [08]	58.0 [09]	22.0 [09]
Cambodia	98.5 [09]	-	85.0 [08]
Indonesia	99.9 [09]	97.0 [09]	56.5 [09]
Lao PDR	99.8 [06]	83.0 [06]	6 to 9
Malaysia	99.2 [10]	59.0 [10]	31.9 [10]
Myanmar	92.0 [07]	-	-
Philippines	99.6 [09]	63.2 [09]	35.7 [09]*
Singapore	99.4 [05]	62.3 [05]	46.3 [05]
Thailand	99.8 [10]	78.2 [09]	36.7 [10]
Viet Nam	97.4 [07]	77.3 [02]	26.0 [07]

[   ] = year of latest available data, GDP = gross domestic product, SME = small and medium enterprise.
* % of total manufacturing value added.
Note: SMEs are defined by national firm classification in their respective host countries.
Sources: ADB; ADBI; ASEAN Secretariat; ASMED (Viet Nam); DTI (Philippines); JODC (Japan); JSBRI (Japan); NSDC (Malaysia); SBC (Republic of Korea); SMBA (Republic of Korea); and SMRJ (Japan).

As supporting industries, SMEs also contribute to intraregional trade through subcontracts with large-scale enterprises. In the globalized economy, large firms seek the division of labor to enhance business efficiency to win out over their competitors, which has the result of increasing dependency on overseas markets for efficient production. This trend can lead subcontracted SMEs, especially SME manufacturers, into foreign markets to establish or maintain business relations with large firms, thereby helping to rebalance the global economy.

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[3] For instance, the cluster of wood furniture manufacturers in Jepara, Indonesia is one of the most successful clusters. Despite the advantages of forming a cluster, however, Tambunan (2005) pointed out that some clusters failed in promoting cooperation among enterprises and establishing a common service facility.

Thus, involving SMEs in national economic systems, rather than excluding them as a risky segment, is a critical policy pillar in Asian countries. SMEs are a core component of any strategy designed to achieve inclusive economic growth in Asia.

1.2 Barriers and Challenges to Fostering SME Growth

Much literature has discussed the notion that economic development is accompanied by poverty alleviation, with SMEs playing a key role in improving macroeconomic and social performances through turnover, job creation, and the division of labor. Asian countries have been growing following a relatively quick recovery from the 2008/09 global financial crisis, gradually reducing the poverty ratio on the whole. However, economic growth does not always stimulate job creation successfully (Figure 1). Some countries still suffer from high unemployment despite their economic growth, which implies that they have structural problems with the "quality of their growth" and progress toward poverty reduction is lacking. The creation, growth, and graduation cycle of SMEs has not functioned well in most Asian countries, with restricted access to financing as one of the critical inhibiting factors.[4]

Figure 1: Economic Growth and Unemployment in East and Southeast Asia

A. Upper Middle Income Countries   B. Lower Middle Income Countries
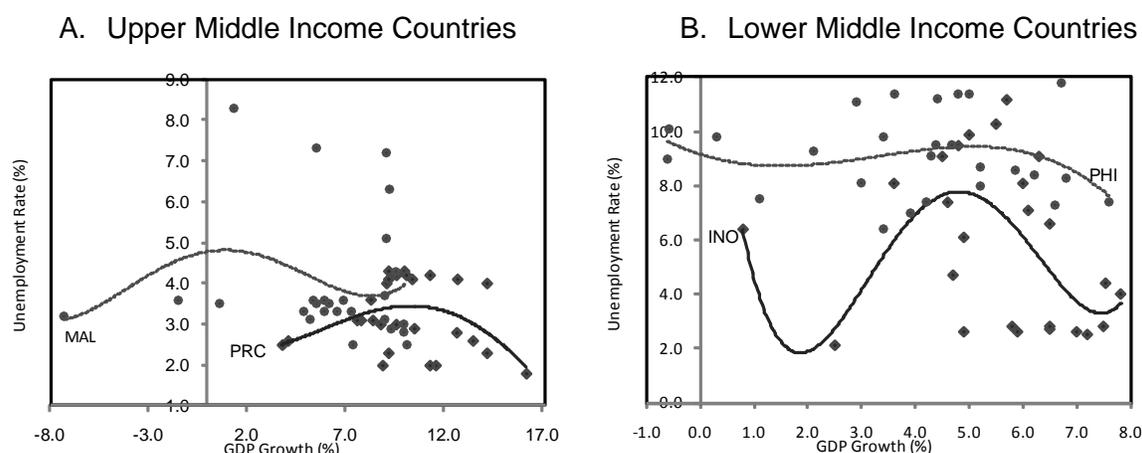
PRC = People's Republic of China, MAL = Malaysia, INO = Indonesia, PHI = Philippines.
Note: Data cover 1985–2011.
Source: Author's calculation based on IMF International Financial Statistics Yearbook 2000, 2005, and 2011; ADB Key Indicators 2012.

The International Finance Corporation's (IFC) 2010 stocktaking report on SMEs to the Group of Twenty (G20)—Scaling-Up SME Access to Financial Services in the Developing World—indicated that between 45% and 55% of formal SMEs do not have access to loans from formal financial institutions in developing countries. This ratio increases to 65%–72% if informal SMEs and microenterprises are included. The IFC and McKinsey & Company (2010) estimated the value of the gap in formal SME credit at $700 billion–$850 billion, the equivalent of 21%–26% of the total formal SME credit outstanding in the developing world. The gap in East Asia accounted for $250 billion–$310 billion, while that in South Asia accounted for $30 billion–$40 billion (Table 2). As another indicator, the World Bank's Consultative Group to Assist the Poor (CGAP) showed that only around 32% of SMEs had received a loan from a financial institution, compared with 56% of large firms (Financial Access 2010). However, the extent of SMEs'

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4   Improving access to finance alone is not enough for scaling-up the SME sector. There are many factors impeding the growth of SMEs, including a lack of skilled workers, fragile internal control systems, and a management culture that is lacking.

access to finance is not uniform across countries. The share of SME credit outstanding to gross domestic product (GDP) is more than 30% in upper middle income countries such as the PRC and Thailand, similar to high income countries such as Japan and the Republic of Korea. Meanwhile, this share is very small in lower middle income countries such as India and Indonesia, which can be attributed to the differing structures and maturity levels of financial systems in various countries (Table 3). When taking into account all funding instruments, including capital markets, the gap in financial access between SMEs and large firms is much larger.

Table 2: SMEs' Access to Finance in Asia

		Value of Credit Gap ($ billion)	Number of Firms (million)	With Deposit Accounts	With Loans or Overdraft
East Asia	MSMEs	900–1,100	170–205	115–140	17–19
	Formal SMEs	250–310 [11%–14%]	11.2–13.6	7.6–9.1	2.0–2.5
South Asia	MSMEs	310–370	75–91	47–57	15–17
	Formal SMEs	30–40 [29%–35%]	2.0–2.8	1.0–1.2	0.5–0.7
Total	MSMEs	2,100–2,500	365–445	240–290	75–90
excluding high-income OECD	Formal SMEs	700–850 [21%–26%]	25–30	18–22	8–10

[ ] = gap as percentage of current outstanding SME credit, MSMEs = micro, small, and medium enterprises, OECD = Organisation for Economic Co-operation and Development, SMEs = small and medium enterprises.
Note: Regional classification is based on the World Bank definition.
Source: IFC and McKinsey & Company. 2010. *Two trillion and counting*. Washington, DC: IFC.

Table 3: Landscape of SME Finance in Asia

	Outstanding Value of SME Loans as % of GDP
A. High Income	
Japan	35.9
Korea, Rep. of	37.4
Singapore	15.0
B. Upper Middle Income	
Malaysia	17.4
Thailand	30.7
China, People's Rep. of	48.7
C. Lower Middle Income	
India	4.3
Indonesia	0.7

GDP = gross domestic product, SME = small and medium enterprise.
Source: CGAP. *Financial Access 2010*.

Typical barriers to accessing bank finance for SMEs include a lack of collateral (real estate security), brief or nonexistent business track records, fragile financial and management systems, and the uncertainty of profitability (especially for R&D companies). As most Asian countries have established a bank-centered financial system, capital market financing is not a realistic option for SMEs. Thus, the average SME relies mostly on its own capital and/or informal

borrowing from friends and family members for start-up funds and working capital. This condition impedes the creation and development of sound and competitive SMEs, and inhibits inclusive economic growth in Asia.

Not all kinds of SMEs are eligible to be economic growth drivers. SME is a general term for entities that operate on different scales in a range of sectors and with varying management styles, which makes a discussion of SMEs as a homogenized grouping impossible. However, SMEs can be roughly classified into one of two types to facilitate discussion of their role in the national economy: (i) stability-oriented and (ii) growth-oriented. The former is typically a self-employed enterprise or family business that operates with the intent of providing for minimum or moderate needs, and with no interest in growth. The latter is a high-end SME or small but growing venture firm that explores new business opportunities with innovative technology and ideas. National policies on SME finance basically comprise two layers of financial inclusion strategies to account for these different types of SMEs. One includes policies for developing the microfinance industry, which aims at social stability and poverty alleviation through enhancing access to finance for low income households and stability-oriented SMEs. The other includes policies for scaling-up funding opportunities for SMEs, which aims at macroeconomic stability and sustainable economic growth through enhancing access to finance for growth-oriented SMEs. Although both sets of policies are critically important for the development and welfare of a country, the latter policy approach is rather crucial to create and stimulate the growth cycle of SMEs toward a resilient national economy. The policies for scaling-up SME finance should be addressed in a holistic manner that goes beyond conventional discussions of SMEs' bankability.

1.3 SME Finance and Global Rebalancing

Enhancing financial accessibility is critically important to vitalizing the SME sector in support of a balanced global economy. To what extent increased financial access for enterprises, especially SMEs, affects domestic savings rates—a primary factor in creating global imbalances—is worth further consideration.

Figure 2 indicates the correlation in high and middle-income Asian countries between gross domestic savings and financial deepening. The findings show that expanded bank credit correlates with a lower ratio of domestic savings in high income countries, while this trend is reversed in middle income countries. This implies that enhanced access to bank credit can contribute to adjustments in the domestic savings rate or current account balance in high income countries, while it can encourage a higher savings rate with fewer adjustments to the current account balance in middle income countries.

There is a continuing condition of excess savings with low investment in emerging Asian countries. Against this backdrop, two assumptions can be considered: (i) high domestic savings mainly arise from corporate savings, especially in the SME sector; and (ii) SMEs keep profits gained from operations backed by formal funding as precautionary corporate savings against unexpected events such as financial crisis, rather than stimulate investment by making use of retained profits. To investigate these conditions, this section tried examining the hypothesis that "SMEs keep borrowed funds as savings for incidental expenses rather than investment for growth in middle income Asian countries," referring to the cases of Indonesia and Viet Nam.

Figure 2: Domestic Savings and Bank Credit in East and Southeast Asia

High Income Countries

Middle Income Countries
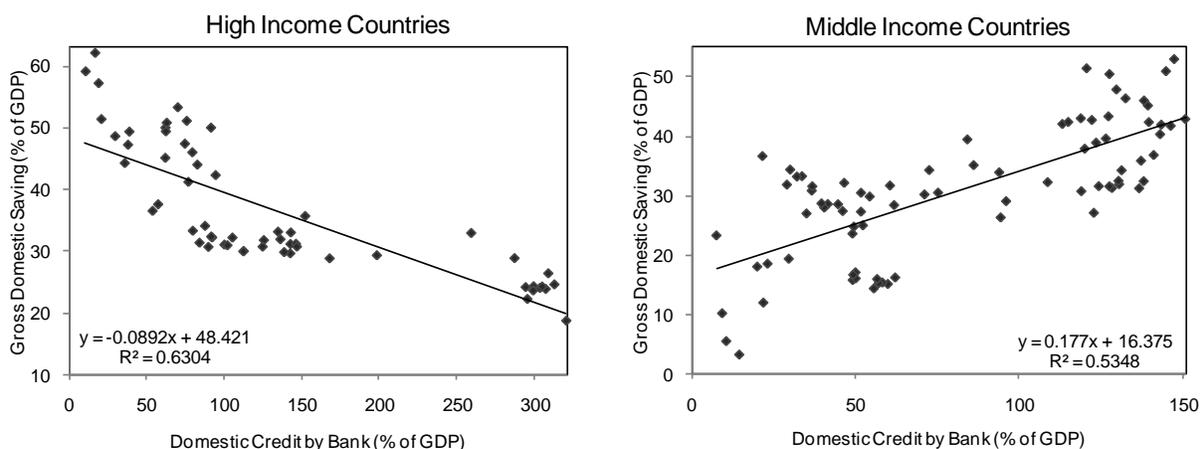
Notes:
1. Based on the World Bank Analytical Classifications 2011, high income countries include Brunei Darussalam, Hong Kong, China, Japan, Republic of Korea, and Singapore; and middle income countries include the People's Republic of China, Indonesia, Malaysia, Mongolia, Philippines, Thailand, and Viet Nam.
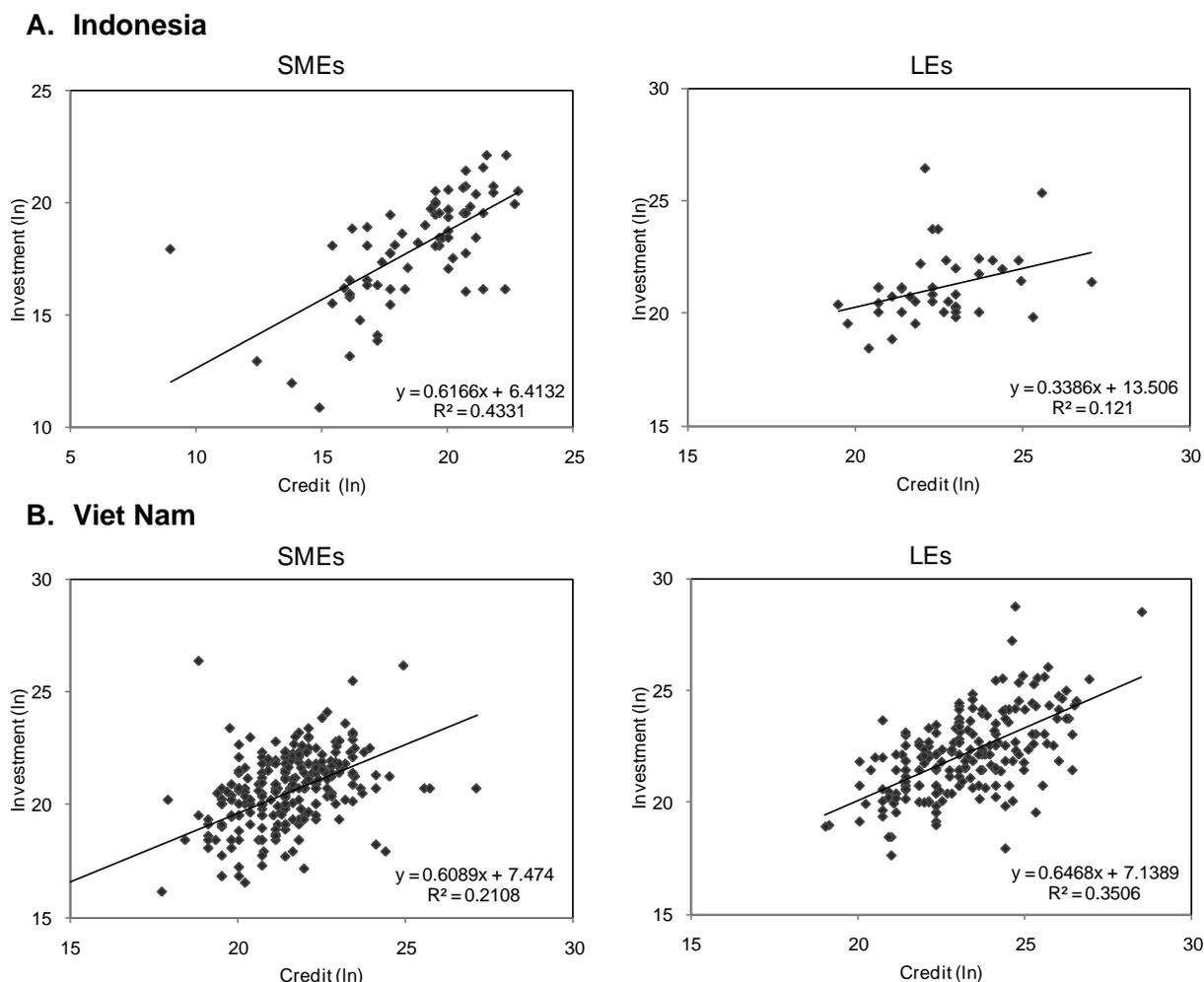2. The correlation between domestic savings and bank credit was r = –0.79 in high income countries and r = 0.73 in middle income countries.
Source: Author's calculation based on ADB Key Indicators 2011.

Figure 3 breaks down the correlation between external funding and fixed asset investment made by enterprises in Indonesia and Viet Nam. The analysis showed a different result from the one initially expected. The estimates explain that the funds raised by firms from financial institutions correlate with the purchase of machinery, vehicles, equipment, land, and buildings in both countries.[5] In particular, if the use of credit increases, the fixed asset investments made by SMEs increase at a greater rate than investments made by large firms in Indonesia. This implies that increasing the depth of credit accelerates SMEs' investment for growth, rather than keeping profits as precautionary savings.

The findings have three implications. First, SMEs having access to formal finance contribute to higher domestic investment. Second, individual savings, rather than corporate savings, contribute to higher domestic savings. However, informal SMEs and microenterprises typically take the form of either self-employment or a family business, and their bank accounts are often opened in an individual person's name, which may be statistically counted as individual savings, not corporate savings. Third, considering that most SMEs rely on informal finance or their own capital for business, SMEs with no access to formal finance keep profits as precautionary savings. If this interpretation is correct, promoting the transformation of SMEs from informal to formal entities and improving financial access for formal SMEs will contribute to mobilizing excess savings for investment in middle income Asian countries, which will eventually result in global rebalancing.

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[5] In Indonesia, the T-test scores of variable "credit" were 7.37 and 2.32, while the R-squared scores were not sufficiently high (0.43 and 0.12) in SMEs and large firms, respectively. In Viet Nam, the T-test scores in the same variable were 8.30 and 10.34, while the R-squared scores were not sufficiently high either (0.21 and 0.35) in SMEs and large firms, respectively.

Figure 3: Credit Access and Investment

A. Indonesia

SMEs

LEs

$y = 0.6166x + 6.4132$
$R^2 = 0.4331$

$y = 0.3386x + 13.506$
$R^2 = 0.121$

B. Viet Nam

SMEs

LEs

$y = 0.6089x + 7.474$
$R^2 = 0.2108$

$y = 0.6468x + 7.1389$
$R^2 = 0.3506$

Notes:
1. Credit refers to value of loans or lines of credit approved by a financial institution.
2. Investment refers to value of fixed assets purchased by firms in a fiscal year (machinery, vehicles, equipment, land, and building).
3. LEs = large enterprises with 100 ≤ employees.
4. SMEs = small and medium enterprises with 5 ≤ employees ≤ 99.
Source: Author's calculation based on World Bank's Enterprise Surveys 2009.

2.   SME Growth and External Funding

This section reviews previous studies and discusses the fundamental issues of what makes SMEs grow and to what extent external funding impacts growth.

2.1   SME Growth Factors

There have been many studies on the growth structure of SMEs where the discussions focus mainly on (i) the factors that enable SMEs' survival, (ii) stages of firm growth, and (iii) SME growth strategies (Byerlee 1973; Anderson 1982; Piore and Sabel 1984; Biggs and Oppenheim 1986; Steel 1993; Tambunan 1994, 2005, 2006; and Snodgrass and Biggs 1996). Tambunan (2006) discussed two factors that contribute to SMEs' survival: (i) subcontracting with large firms

and (ii) establishing a niche market that is not in direction competing with large firms. He concluded that the latter is the most suitable for SMEs such as handicraft manufacturers that rely on a simple production process since the former strategy requires just-in-time delivery and a high level of quality control. Subcontracting may be effective for highly organized SMEs but not appropriate for average SMEs lacking developed technology and the benefit of scale economies.

As a theoretical analysis on SME growth, Anderson (1982) et al. tried classifying the growth stage of enterprises by the maturity level of the economy. In doing so, they revealed that (i) household industries such as garments, metal manufacturing, shoe making, and handicraft are dominant in the early stages of economic development; (ii) SME manufacturers arise as incomes increase with the development of commodity markets; and (iii) large-scale manufactures dominate the economy in the later stages of economic development.

Tambunan (1994) and Snodgrass and Biggs (1996) concluded from their surveys that the number of employees in small firms decreases as average income levels increase. The impact may be most significant in higher income countries. Biggs and Oppenheim (1986) pointed out that the type of products made by small firms shifts from simple manufacturing products to sophisticated modern ones as income levels increase, which encourages the growth of enterprises. However, less sophisticated SMEs will not entirely fade away over time, but rather industries with special skills and production specialization can survive in limited market areas.

The accumulated studies also touched upon differences in growth patterns between rural and urban SMEs even within the same industry and among firms of similar sizes, with urban SMEs recording higher growth rates than rural ones. Anderson (1982) analyzed several unique factors in urban areas—including market potential, larger populations, relatively higher incomes per head, and the presence of a middle- and high-income customer base—that offer advantages to urban SMEs. Byerlee (1973) also concluded that different supply–demand patterns exist in rural and urban markets even for SMEs of the same size and in the same industry.

As for the growth strategies of SMEs, the role of specialized SMEs (flexible specialization) has been discussed, especially with regard to Europe, since the 1980s when globalization deepened. Piore and Sabel (1984) pointed out that globalization has generated new consumer demand for non-mass-produced products that cater to special needs and interests, and has led to the formation of areas where specialized handicraft SMEs gather. Specialized SMEs are characterized as entities with a high level of human resource skills focused on a single method of production within a closed market. They pursue innovation under a limited competitive environment and often cooperate closely with other enterprises. Specialized SMEs have the ability to grow faster than large firms, although the timely renewal of technologies is a precondition for them to survive. SME clusters can also be discussed in this context, with the banking sector now seeing clusters as a source of potential clients. Clustering is expected to more effectively protect SMEs from unexpected external shocks such as a financial crisis (Sandee 1999).

SME growth patterns have been often discussed in terms of (i) real income, (ii) population density, (iii) market demand, and (iv) labor supply. Combining these factors as variables, Tambunan (2006) classified the growth patterns into four types. First is the relation between income and market demand, which suggests that market demand shifts to modern products as per capita income increases and the demand for inferior products from manual industries decreases. Even in this case, however, specialized SMEs promptly responding to market demand will be able to grow further, cultivating a new market opportunity or niche market. In

rural areas, income increases can stimulate demand for sophisticated urban products and imported goods, while reducing demand for handmade products. Still, market infrastructure in rural areas can be improved as urban enterprises enter into rural markets. Whether rural SMEs can compete with urban enterprises or not determines their survivability. Second is the relation between income and the labor supply. The labor force is expected to shift to more sophisticated enterprises in the event that rising labor productivity triggers higher incomes, while it will remain with microenterprises if better work opportunities bring higher incomes. Third is the relation between population density and market demand, which indicates that rural areas with higher population densities have increased demand for SME products. Fourth is the relation between population density and the labor supply, which explains that rural areas with higher population densities generate an excess supply of labor for SMEs, gradually reducing incomes and lowering labor productivity in these areas.

Moving beyond theoretical discussions, Steel (1993) found that many large firms in Indonesia had grown from SMEs, indicating that the ratio of enterprises with more than 500 employees to the total number of medium and large firms increased from 28.8% in 1975 to 63.7% in 1990. However, whether or not this demonstrates SME growth was not clearly determined.

The growth structure of SMEs is detailed below. These findings were derived from the analysis of manufacturing SMEs and did not analyze other sectors or the correlation between SME growth and external funding.

(i) SMEs can increase their chance of survival by either subcontracting with large firms or establishing a niche market. The average SME that does not enjoy economies of scale can benefit from establishing a niche market rather than subcontracting. Flexible specialization or clustering can be key for an SME's survival and growth.

(ii) The dominant growth stage of SMEs differs across economies depending on their level of maturity, with household industries in the early stages of economic development and manufactures in the later stages. Urban SMEs grow faster than rural ones due to advantageous business conditions in urban areas.

(iii) Rising incomes can generate new market demand through customer preferences shifting to sophisticated modern products, and will encourage the growth of enterprises, which also brings a more competitive environment and more open markets to rural economies. Micro businesses will decrease in number as incomes rise but they can still maintain demand in niche markets. The transfer of labor caused by rising incomes encourages the development of sophisticated micro businesses.

(iv) Areas with higher population densities have increased demand for SME products, which encourages the growth of enterprises unless the labor supply is excessive.

2.2   Financial Crisis, SMEs, and Financial Access

The 1997/98 Asian financial crisis led to many studies on SMEs' performance during and after the crisis, with most focusing on SME manufacturers, especially exporters. Berry, Rodriguez, and Sandee (2001) pointed out that SMEs were less impacted by the financial crisis than large firms due to SMEs' flexible production processes. This contention is supported by data from the Ministry of Cooperatives and SMEs in Indonesia, which indicate that the annual increase in sales value per worker in the manufacturing industry was negative in 1998 in medium firms and large firms at –27.2% and –5.4%, respectively. Meanwhile, sales value per worker increased 34.9% in small firms in 1998, mainly due to their low dependency on formal commodity markets for material procurement and on financial institutions for funding, which enabled small firms to

promptly and flexibly respond to the crisis situation. (However, the severity of the impact of the financial crisis on SMEs in Indonesia differed by sector and region.)

Magiera (1999) surveyed Indonesian export-oriented SME manufacturers and found that they performed better than large firms after the crisis. Small exporters (e.g., garments and leather products) increased their trade volume 3.6% in 1998, while large firms only saw a 0.8% increase.

Thee Kian Wie (2000) comparatively analyzed the impact of the financial crisis in Indonesia by scale of enterprise and developed a different opinion. The manufacturing industry was one of the sectors most seriously impacted by the financial crisis, with growth slipping by −12.9% in 1998. Although other studies evaluated the post-crisis performance of SME manufacturers (especially exporters) positively when compared with large firms, Thee stressed that the financial crisis led to a sharp decrease in the number of SMEs and their employees by −23.4% and −19.8%, respectively, between 1996 and 1998, thus signaling reduced domestic demand for SME products. The banking crisis further restricted SMEs' access to finance. Despite these conditions, however, SMEs that shifted production to cheaper goods for export were able to profit in light of the rupiah's depreciation.

Wengel and Rodriguez (2006) analyzed the performance of export-oriented SME manufacturers in Indonesia in the aftermath of the financial crisis and again found differences in impact between SMEs and large firms. During the crisis, large firms reduced their trade volume while SMEs expanded it. As large firms relied heavily on imported materials, high procurement costs caused by the rupiah's depreciation and increasing amounts of bad debt resulting from the banking crisis seriously hampered the recovery of large firms. Meanwhile, the slowdown in domestic markets and increasing production costs drove some SMEs toward international markets. Due to their low dependency on imported materials, SMEs' competitiveness tended to remain high and they achieved moderate growth after the crisis.

As for the funding environment of export-oriented SME manufacturers, Wengel and Rodriguez (2006) conducted empirical analysis that estimated SMEs would increase their trade volume by 1.8% if they were able to borrow from financial institutions compared to a scenario in which SMEs had no access to finance. The increase was smaller in the case of large firms (1.0%), which implies that external funding can improve the business performance of SMEs to a greater degree than for large firms.

Musa and Priatna (1998) also surveyed the funding environment for SMEs after the financial crisis. Analyzing 300 samples from eight provinces in Indonesia, the findings showed that 75% of SMEs relied on their own capital for financing while less than 13% had access to formal finance. Access to formal finance was found to have decreased after the 1997/98 Asian financial crisis. Musa and Priatna explained that the relatively quick recovery of SMEs after the crisis could be attributed to their limited access to finance prior to the crisis, with SMEs overcoming the crisis period by making use of cheap materials. However, 80% of the SMEs surveyed reported reducing business activities after the crisis, while the 8% that reported increased profits were exporters not dependent on imported materials. Several studies highlighted that SMEs suffered less of an impact from the crisis compared to large firms, but that a significant portion of SMEs (mainly non-exporters) did experience serious losses. Against this backdrop, it is natural to consider that limited access to finance may have adversely affected the survival and growth rate of SMEs.

Based on the discussion above, the factors contributing to an SME's survival during the 1997/98 Asian financial crisis include the following.

(i) **Financial accessibility**. SMEs relying on their own capital and with limited access to finance were better positioned to avoid the serious shocks from the financial and banking crisis than large firms. However, low access to finance negatively affected SME survival and growth rates in general.

(ii) **Localization and niche marketing**. Creating a niche market separate from open markets enabled SMEs to survive the crisis. Locally based business operations, in which SMEs were not involved in subcontracts with large firms, also enabled SMEs to survive.

(iii) **Internationalization and export-orientation**. SMEs that shifted from domestic to international markets, and were not reliant on imported materials, were able to weather the crisis.

(iv) **Specialization and clustering**. SMEs that successfully cooperated with other enterprises—to reduce their production costs, share and renew technologies, and form wide-ranging sales networks—were able to survive the crisis.

Findings from the studies referenced above imply that stability-oriented SMEs could survive a financial crisis by not relying on open markets and formal funding sources. Growth-oriented SMEs could do so by pursuing management efficiency and technological innovation, and flexibly shifting market strategies to overcome their financial difficulties. Taking account of the long-term growth trend of Asian economies, the number of growth-oriented SMEs is expected to increase and they will seek increased access to the formal financial system. Thus, enhancing financial accessibility through diversifying financing instruments and infrastructure is critical to supporting growth-oriented SMEs.

2.3 Impact of External Funding on SME Growth

This section breaks down the discussion of to what extent external funding affects the growth of SMEs, referring to the cases of Indonesia, the Lao People's Democratic Republic (Lao PDR), the Philippines, and Viet Nam. First, a regression model was prepared to assess the impact of formal finance on SME growth, combining an independent variable for formal finance with a dependent variable for turnover as a major indicator of a firm's growth. The regression is conducted by the Ordinary Least Squares (OLS) method. The data set was extracted from the World Bank's Enterprise Surveys (2009). The regression equation is described by

$$S_i = a + b_1 C_i + b_2 \, d\_sme_i + b_3 \, cxs_i + u_i \qquad\qquad (1)$$

S is a firm's growth function denoted by the total annual sales value (local currency); *a* and *b* are coefficients to be estimated; C is the value of approved loans and lines of credit; d_sme is a dummy variable, denoted by a 1 for firms having more than five but less than 100 employees (SMEs), and 0 for firms having 100 or more employees (large firms); cxs is an interaction term multiplying C by d_sme; i is an observed firm; and *u* is a residual.[6] The SME classification is based on an expedient definition in all sample countries for comparison. This model indicates to what extent coefficients between credit change and sales change in SMEs differ from those in large firms.

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6 S and C are variables converted to a logarithm.

The result of estimates showed that increasing the depth of credit pushes up the profit level of enterprise in all sample countries (significant at the 1% level). This proves that a firm's access to formal finance is a factor in facilitating its business growth. The extent of sales value in SMEs is typically smaller than in large firms, but the estimates imply that in several countries SMEs' credit access affects their business growth to a greater extent than is the case for large firms.

As indicated in Table 4, in Indonesia, if credit increases by 1 percentage point, sales value increases by 0.76 percentage points in large firms, but the extent of increase diminishes to 0.58 percentage points in SMEs (significant at the 10% level). Meanwhile, in Viet Nam, if credit increases by 1 percentage point, sales value increases by 0.40 percentage points in large firms, but the extent of increase expands to 0.68 percentage points in SMEs (significant at the 1% level). Although their coefficients are not significant, the Philippines and Lao PDR follow the same trend as Viet Nam.

The results suggest that formal finance may accelerate the growth of SMEs beyond the benefits it delivers for large firms. Taking this into consideration, there is a high probability that enhancing formal financial accessibility for SMEs as a policy priority creates an easy path for the government to achieve sustainable economic growth.

In this regard, however, national policymakers need to carefully examine the causes behind SMEs' poor access to formal financial services, with two hypotheses being considered. First, SMEs satisfactorily rely on their own capital and/or informal finance for their business operations, rather than actively using formal finance for growth. Thus, there is little demand for tapping formal finance. Second, SMEs often cannot raise sufficient funds from formal financial institutions even if they are willing to access formal finance due to internal or external factors. An SME finance policy should be based on the root cause of SMEs' poor financial access. If SMEs have a preference to use informal sources of funds, there may be a perception risk among them. In this case, information on the benefits of access to formal finance should first be disseminated within the SME sector. If SMEs perceive such benefits and show strong demand for formal finance, an SME finance policy should focus on meeting their demands with flexible and innovative ideas.

SMEs' demand for formal finance in Indonesia was identified from a survey conducted in 2010 through an initiative of the author engaged as an expert with the Japan International Cooperation Agency (JICA) and the Indonesian Capital Market and Financial Institution Supervisory Agency (Bapepam-LK), in cooperation with the Ministry of Industry, the Ministry of Cooperatives and SMEs, the Central Java Provincial Government, and leading Indonesia venture capital firm PT Bahana Artha Ventura. This survey sampled 622 micro, small, and medium enterprises (MSMEs) across the country (See Box A for details).

The findings from the survey show that around half of the samples (54.2%) accessed banks for finance while just under half (47.3%) relied on their own capital and a quarter (25.1%) borrowed funds from family, relatives, and friends (Figure 4). As for future funding, the SMEs surveyed desired further access to formal financial institutions such as banks (64.5%), non-banks (33.8%), and venture capital companies (31.4%). SMEs also wished to reduce dependence on both their own capital (20.9%) and informal individual borrowing (7.2%). The demand for public loan programs in Indonesia is likely to sharply increase in the future based on the results. This implies that a majority of the surveyed SMEs are seeking growth through safe money from formal finance and wish to diminish the use of informal instruments.

Table 4: SME Growth and External Funding

Ordinary Least Squares (OLS) Estimation

	Indonesia			Lao PDR		
	model 1	model 2	model 3	model 1	model 2	model 3
lnc	0.7868	0.6107	0.7565	0.6126	0.5710	0.4885
	[24.07]***	[16.39]***	[9.10]***	[6.56]***	[5.93]***	[2.61]**
d_sme		-1.8581	2.0732		-0.6278	-3.0266
		[-7.71]***	[1.03]		[-1.53]	[-0.65]
cxs			-0.1819			0.1128
			[-1.96]*			[0.52]
Constant	6.4437	11.2257	7.9609	8.9627	10.2876	12.0701
	[9.98]***	[13.20]***	[4.26]***	[4.61]***	[4.88]***	[2.97]***
R-squared	0.6961	0.7541	0.7578	0.4214	0.4439	0.4465
Adj-R-squared	0.6949	0.7522	0.7549	0.4116	0.4247	0.4173
N	255	255	255	61	61	61

|	Philippines			Viet Nam		
	model 1	model 2	model 3	model 1	model 2	model 3
lnc	0.7644	0.6377	0.5853	0.6382	0.5063	0.4009
	[16.68]***	[13.18]***	[6.33]***	[23.34]***	[18.38]***	[11.69]***
d_sme		-1.2695	-2.4792		-1.2533	-7.3575
		[-5.73]***	[-1.35]		[-11.23]***	[-5.99]***
cxs			0.0722			0.2781
			[0.67]			[4.99]***
Constant	5.7387	8.6282	9.5359	9.8519	13.5116	15.9379
	[7.82]***	[10.11]***	[5.93]***	[16.33]***	[21.14]***	[20.09]***
R-squared	0.5379	0.5940	0.5947	0.4714	0.5619	0.5792
Adj-R-squared	0.5360	0.5906	0.5896	0.4706	0.5605	0.5771
N	241	241	241	613	613	613

* p<0.1, ** p<0.05, *** p<0.01

lnc = log(C), C = value of approved loans and lines of credit, d_sme = a dummy for firms (SMEs = 1, large firms = 0), cxs = multiplying log(C) by d_sme. A dependent variable = log(S), S = total annual sales value of enterprise (local currency).
Note: The upper section is the estimate, while the lower section is the t-value.
Source: Author's calculation based on World Bank's Enterprise Surveys 2009.

As a matter of fact, financial accessibility is not yet sufficient for SMEs. Figure 4 also illustrates the barriers for SMEs in accessing formal financial institutions. The surveyed SMEs identified collateral and guarantees, and high lending rates as the most serious barriers to accessing financial institutions. The findings suggest that excessive requirements on collateral and guarantees exist, while prohibitively high lending rates are being imposed on SME borrowers, resulting in supply-side barriers that are likely to negatively affect the growth of SMEs.

Figure 4: Funding Instruments and Barriers to Accessing Financial Institutions in Indonesia

A. Funding Instruments

B. Barriers to Financial Access
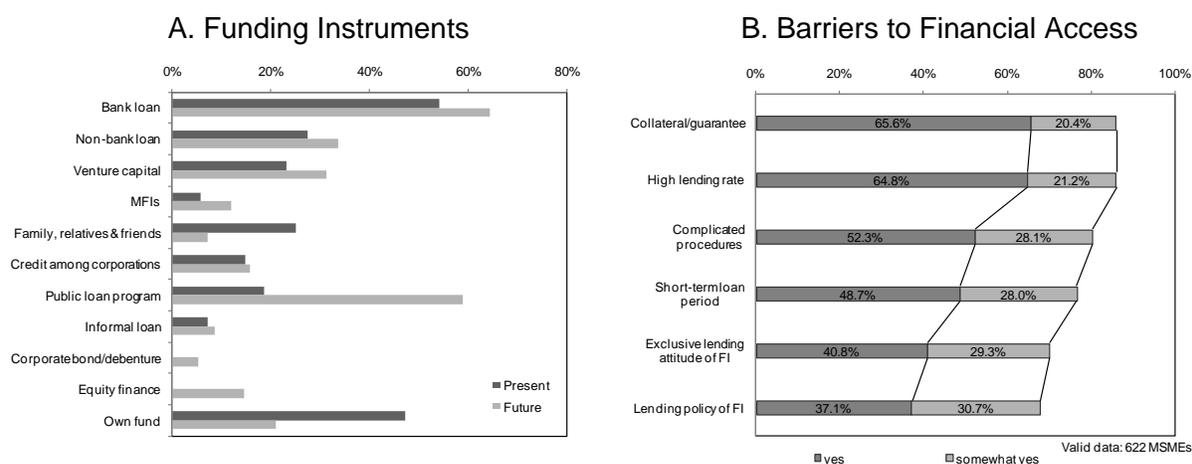
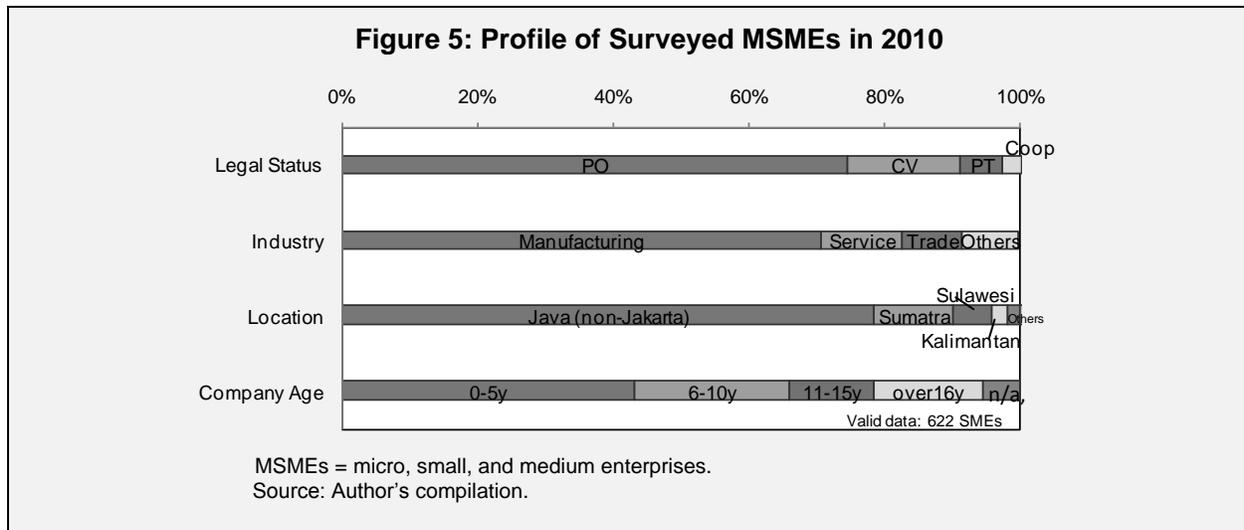Note: Present = funding instruments accessed, Future = funding instruments desired in the future.
Source: Author's compilation.

Box A: Survey on the Funding Environment for MSMEs in 2010

The survey on the funding environment for micro, small, and medium enterprises (MSMEs) was conducted from February through June 2010 in cooperation with the Ministry of Industry, the Ministry of Cooperatives and SMEs, the Central Java Provincial Government, and leading venture capital company PT Bahana Artha Ventura. The survey targeted all types of industries and covered major local provinces and cities. The objective of this survey was to scrutinize the funding needs of growth-oriented MSMEs, especially the possibility of involving them in the capital market. The survey used a set of questionnaires specially designed to ascertain their real needs, which comprised five-scale, check-box, and fill-in style questions on financial conditions, business conditions, funding instruments, obstacles to accessing finance, and demands on capital market financing.

First, considering that most of the target MSMEs had little knowledge of financial issues, the socialization programs on financial and capital markets were held in major local cities such as Bandung, Lampung, Surabaya, Medan, Makassar, Kudus, Tegal, and Solo. As a part of these programs, the survey was conducted after lectures on financial markets and guidance on how to fill in the questionnaire. In parallel with that, PT Bahana Artha Ventura and regional venture capital companies located in major local areas in Indonesia kindly cooperated in this survey.

As a result, a total of 622 completed questionnaires were collected from MSMEs. Of these sampled MSMEs, 74.6% were individual business units with no legal status, 43.2% were start-up businesses whose operating periods were less than 5 years, 66.6% were businesses with employees of less than 20 people, and 70.7% belonged to the manufacturing industry. A total of 346 MSMEs, or 55.6%, provided valid financial data. The average total asset value per head was IDR2.13 billion and the annual net sales value per head was IDR1.66 billion. Basically, these MSMEs belong to the upper layer of the MSME pyramid. The sampled MSMEs included 120 growing microenterprises, according to the category on Law No.20/2008, which provided financial data.

Figure 5: Profile of Surveyed MSMEs in 2010

MSMEs = micro, small, and medium enterprises.
Source: Author's compilation.

3. Supply–Demand Gap in SME Finance

3.1 Dynamics of Conventional SME Finance

Typically, SMEs have difficulty achieving the same level of efficiency in production and investment as large firms, which is often associated with a comparative disadvantage in their market transactions, especially financial transactions. Therefore, the enhancement of SMEs' financial accessibility is needed to strengthen the real sector in a given country.

Information asymmetry is often quoted as a critical factor in SMEs' funding difficulties. A financial system with incomplete information triggers a condition in which financial institutions hesitate to provide credit to SMEs because business risks and financial soundness cannot be adequately measured.

For financial institutions, transaction costs—such as loan screening costs—are related to economies of scale. In other words, the frequent provision of credit on a small scale is costly. Financial transactions are basically a contract between present and future conditions, accompanied by uncertainty and financial risk. These conditions lead financial institutions to hesitate to finance SMEs from a short-term point of view. In general, it takes a relatively long time for a start-up business to become competitive. A financing mechanism to foster SME development should take into account expected progress along the growth cycle from a long-term point of view.

Adverse selection and moral hazard are problems often resulting from information asymmetry. To avoid the risk of financing SMEs that are not suitable for lending (adverse selection), financial institutions need to assess borrowers' information accurately. In doing so, the cost for collecting information rises for financial institutions.[7] Meanwhile, to avoid unexpected or risky

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[7] Financial institutions are at a disadvantage in knowing clients perfectly since it is costly to identify risky clients for lending. For instance, financial institutions might be willing to provide credit to excellent customers at an interest rate of 5.0% and to risky ones at 10.0%. Due to information asymmetry, it is not possible to select only excellent customers. Under this scenario, financial institutions would offer a lending rate of 7.5% to all customers. As a result, a greater number of risky customers and a lower number of excellent ones will seek to borrow from financial institutions.

SME behavior that exceeds loan objectives yet made possible by access to financing (moral hazard), financial institutions need to continually monitor their borrowers' activities, imposing further costs. These costs associated with information asymmetry between lenders and borrowers negatively impact the supply side of SME finance.

For banks lending to SMEs, several preconditions—such as collateral, third party guarantees, and limited loan objectives—are conventionally required. Excessive collateral and guarantee requirements by banks are often criticized as conditions that burden SMEs with fundraising obligations.

Under the bank-centered indirect financial systems established in most Asian countries, the demand-side (SMEs) has little familiarity with direct finance. Naturally, SMEs seek access to banks as the primary, or only, instrument of formal finance. Once SMEs obtain bank financing and if they successfully grow, there will be further opportunity to deepen their dependency on banks by supplementing capital shortages and gradually transforming continuous long-term bank borrowing into "quasi-capital." This condition leaves SMEs' management and operations vulnerable in the event of a credit crunch generated by unexpected events such as a financial crisis.

3.2 Measurement of SME Financing Gap—Indonesia

Information asymmetry deepens the supply–demand gap of SME finance. Due to high costs for transactions and information collection, as well as immeasurable risks, financial institutions generally hesitate to finance SMEs. To mitigate such risks and reduce the cost burden, financial institutions oblige SMEs to fulfill steep collateral and guarantee requirements, and apply high interest rates. Not surprisingly, SMEs tend to regard these measures as serious supply-side barriers.

A disequilibrium model of the credit market has been discussed previously in the literature, including Fair and Jaffee (1972), Rimbara and Santomero (1976), and Laffont and Garcia (1977). Fair and Jaffee (1972) established credit supply–demand functions based on the relation between price (lending rate) and lending volume, provided that credit provision corresponds to the fewest of either credit supply or demand. Considering such a disequilibrium framework, many scholars—such as Pazarbasioglu (1997), Ghosh and Ghosh (1999), and Agung et al. (2001)—developed their models to investigate a possible credit crunch in the aftermath of the financial and banking crises.

Based on the discussion raised by Agung et al. (2001), this section tries assessing the financing gap between lenders and SME borrowers by establishing regression models that measure both supply-side and demand-side factors to determine the provision of bank credit, referring specifically to the case of Indonesia.

The time series data were extracted from various issues of Bank Indonesia's Banking Statistics and Financial Statistics and the Central Bureau of Statistics (BPS), covering monthly data from January 2007 to December 2011. The first equation is formulated as a credit supply curve, where a banks' loan supply is determined by their lending capacity (defined as total liabilities minus equity capital and required reserves), lending rate for working capital, production outputs (real GDP), and non-performing loan values (NPLs). With a dependent variable for bank loans outstanding, the credit supply curve is described by

$$L^s_t = a + b_1 \, cap_t + b_2 \, r_t + b_3 \, y_t + b_3 \, npl_t + u_t \tag{2}$$

L^s is a credit supply function; a and b are coefficients to be estimated; cap is banks' lending capacity as local currency values calculated based on commercial banks' balance sheets; r is the average lending rate for working capital; y is the value of real GDP (quarterly data); NPL is the value of non-performing loans; t is an observed point in time; and u is a residual. Although banks' capital-to-asset ratio was included as an independent variable in the credit supply function established by Agung et al., it is excluded from this model due to the similar variable incorporated (cap) and a risk of multicolinearity.

The second equation is formulated as a credit demand curve, where the demand for bank loans is determined by bank lending rates and production outputs (real GDP).[8] GDP is considered an indicator to represent the potential demands on firms' business operations. With a dependent variable for bank loans outstanding, the credit demand curve is described by

$$L^d_t = a + b_1 \, r_t + b_2 \, y_t + u_t \tag{3}$$

L^d is a credit demand function; a and b are coefficients to be estimated; r is the average lending rate for working capital; y is the value of real GDP as a determinant of credit demand; t is an observed point in time; and u is a residual.

These models are tested in cases of the total commercial bank lending and SME lending, where the outstanding values of the total and SME bank loans are used as dependent variables in the respective credit supply and demand curves, with corresponding NPLs as independent variables. To measure the change of the credit supply and demand in pre- and post-crisis periods, a dummy for the 2008/09 global financial crisis is included in both supply–demand curves, where 0 denotes time from January 2007 to December 2008 while 1 represents time from January 2009 to December 2011. Due to the truncated data, maximum likelihood (ML) estimation is adopted as analysis of limited dependent variable in both models.

Following the previous discussions, if the price of credit (lending rate) is not sufficiently adjusted and credit rationing arises, the disequilibrium of the credit market is denoted by

$$L_t = min(L^s_t, L^d_t) \tag{4}$$

L_t is the actual lending value observed at period t. L corresponds to L^s if $L^d > L^s$ (excess credit demand), while L follows L^d if $L^s > L^d$ (excess credit supply).

According to Table 5, in total commercial bank lending, credit supply increases if banks' lending capacity, lending rate, and production outputs increase and if NPLs decrease (significant at the 1% level). Meanwhile, credit demand increases if production outputs rise, but the effect of the lending rate is different between pre- and post-crisis. In pre-crisis, even if lending rates go up, credit demand remains high; however, this trend is reversed in post-crisis periods.

In SME lending, credit supply also increases if lending capacity and production outputs increase. However, a decline in lending rates increases the credit supply for SMEs. Even if NPLs rise, SME credit supply increases in pre-crisis periods, though such a trend is reversed in post-crisis periods. SME credit demand traces the same trend as that in total commercial bank lending. These estimates imply that the banking sector actively provides SME credit with

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[8] Specifying a credit demand function is more complicated. Ghosh and Ghosh (1999) raised a negative argument of using only current industrial production in the demand function to find a credit crunch.

concessional lending rates and/or public guaranteed loan programs (e.g., Kredit Usaha Rakyat [KUR]) in line with government policies to improve SMEs' access to finance, but banks' credit risk sensitivity in post-crisis periods tends to go higher than prior to a crisis. As for credit demand, SMEs maintain their appetite for finance during pre-crisis periods regardless of lending rates, but their credit price sensitivity tends to go up in post-crisis.

The supply–demand gap in SME finance is simply measured by credit demand minus credit supply as defined by

$$S\text{-}D \text{ gap}_t = L^d_t - L^s_t \tag{5}$$

$S\text{-}D \text{ gap}_t$ is the lending quantity denoting the difference between credit demand and supply at period t. If the positive gap is identified, credit contraction by banks may have arisen during the time observed. Figure 6 shows the estimated supply–demand gap in total and SME bank lending in Indonesia. The result of these estimates identified a large SME financing gap at some points in time. In particular, the gap is large in late 2008. Global factors such as the financial crisis, rather than domestic factors such as seasonal and country-specific events, may largely affect banks' lending attitude toward SMEs. More concretely, triggered by the Lehman Shock in late 2008, the global financial crisis led to credit contraction all over the world and such a contration became tangible in Indonesia relatively soon after the crisis began. Thus, the estimated large financing gaps indicated in Figure 6 are synchronized with the crisis.

This implies the limit of bank lending for firms to raise sustainable and safe funds for business, especially for SMEs. Once unexpected events such as a financial crisis happen, the banking sector will naturally correspond to such events and take actions to mitigate risks associated with these events, which will cause a credit crunch in the banking sector and seriously affect the SME's access to finance. Moreover, the Basel Capital Accords (Basel II and III) may accelerate this trend in banks. To supplement the limit of sustainable bank finance for SMEs, the diversification of funding modality, with flexibility and innovation, is indispensable.

Figure 6: Supply–Demand Gap in SME Finance—Indonesia
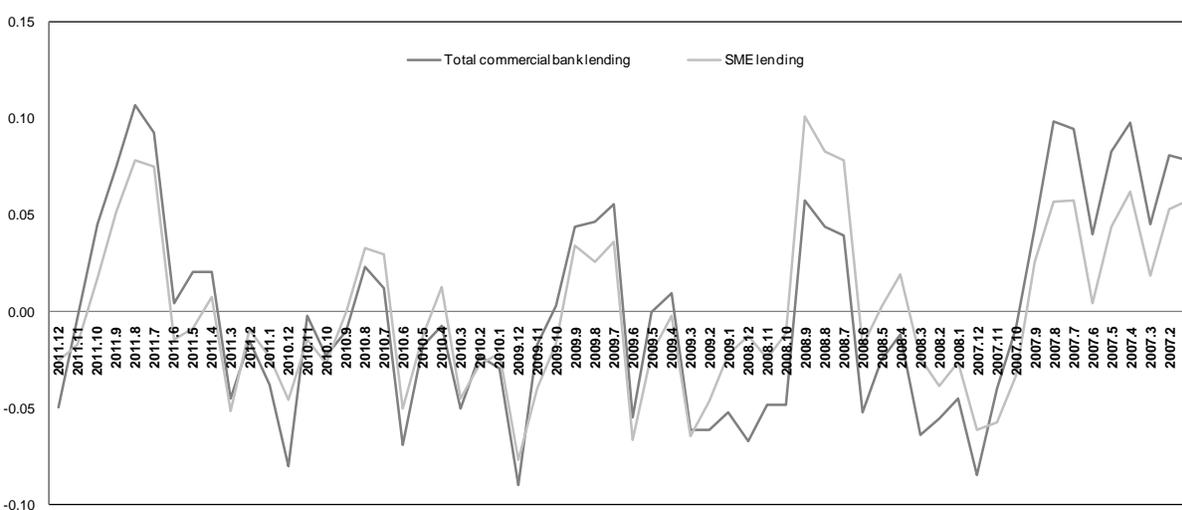
Note: The supply–demand gap is calculated by estimates on the credit demand curve minus those on the credit supply curve.
Source: Author's calculation based on various issues of Bank Indonesia's Banking Statistics and Financial Statistics, and BPS statistics.

Table 5: Supply–Demand Gap in SME Finance—Indonesia
Maximum Likelihood (ML) Estimation

A. Total Commercial Bank Lending

	Total		Before GFC		After GFC	
	Credit Supply	Credit Demand	Credit Supply	Credit Demand	Credit Supply	Credit Demand
l_cap	0.4582		0.4544		0.2821	
	[15.39]***		[10.92]***		[3.15]***	
wcr	0.0085	0.0317	0.0059	0.0177	-0.0056	-0.0254
	[2.59]***	[5.30]***	[1.53]	[1.90]*	[-0.67]	[-2.99]***
y	2.4468	3.6293	2.5032	3.8257	2.4072	2.4430
	[26.26]***	[56.89]***	[23.07]***	[19.95]***	[16.02]***	[17.14]***
cb_npl	-0.1591		-0.1642		-0.1100	
	[-7.17]***		[-4.32]***		[-2.50]**	
Constant	-23.1433	-34.3107	-23.7421	-36.7062	-20.4383	-17.8016
	[-28.11]***	[-38.42]***	[-18.76]***	[-14.38]***	[-11.75]***	[-8.91]***
sigma	0.0132	0.0328	0.0105	0.0337	0.0132	0.0163
N	60	60	24	24	36	36

* p<0.1, ** p<0.05, *** p<0.01

B. SME Lending

	Total		Before GFC		After GFC	
	Credit Supply	Credit Demand	Credit Supply	Credit Demand	Credit Supply	Credit Demand
l_cap	0.4273		0.4928		0.2652	
	[16.91]***		[14.51]***		[3.95]***	
wcr	-0.014	0.0141	-0.0175	0.0043	-0.0203	-0.0297
	[-5.39]***	[2.87]***	[-5.56]***	[0.51]	[-3.33]***	[-4.62]***
y	2.4389	3.6983	2.1641	3.4470	2.6804	2.8202
	[29.31]***	[70.24]***	[20.94]***	[19.87]***	[24.94]***	[26.25]***
sme_npl	0.0150		0.1206		-0.0391	
	[0.60]		[2.02]**		[-1.28]	
Constant	-24.8248	-35.6477	-23.1225	-32.2203	-25.0756	-23.4047
	[-33.40]***	[-48.36]***	[-24.16]***	[-13.94]***	[-19.54]***	[-15.54]***
sigma	0.0111	0.0271	0.0095	0.0305	0.0099	0.0123
N	60	60	24	24	36	36

* p<0.1, ** p<0.05, *** p<0.01

l_cap = banks' lending capacity, wcr = working capital lending rate, y = real gross domestic product, cb_npl = commercial banks' non-performing loans, sme_npl = non-performing SME loans, SME = small and medium enterprise, GFC = 2008/09 Global Financial Crisis.

Notes:
1. Dependent variables are total outstanding value of commercial bank lending (A) and total outstanding value of SME lending (B).
2. The upper section is the estimate, while the lower section is the z-value.

Source: Author's calculation based on various issues of Bank Indonesia's Banking Statistics and Financial Statistics, and BPS statistics.

SMEs' funding needs for working and investment capital, especially the need for long-term funds, will increase as they grow further. However, it is difficult for financial institutions to satisfy SMEs' funding demands due to information asymmetry.

The findings from the survey in Indonesia highlighted the supply–demand gap of SME finance. As indicated in Figure 7, SMEs with access to formal finance were content with the present condition of short-term (less than 1 year) or mid-term (1 year–5 years) credit. Only 10% of the surveyed SMEs had received long-term credit (more than 5 years) from banks. On the other hand, the survey findings showed that SMEs' demand for long-term funding of more than 5 years is likely to increase in the future, with 39.4% (vs. 10.0%), 15.8% (vs. 3.5%), and 18.6% (vs. 4.8%) desiring long-term credit from banks, non-banks, and venture capital companies, respectively.

Figure 7: Loan Term: Present and Future—Indonesia
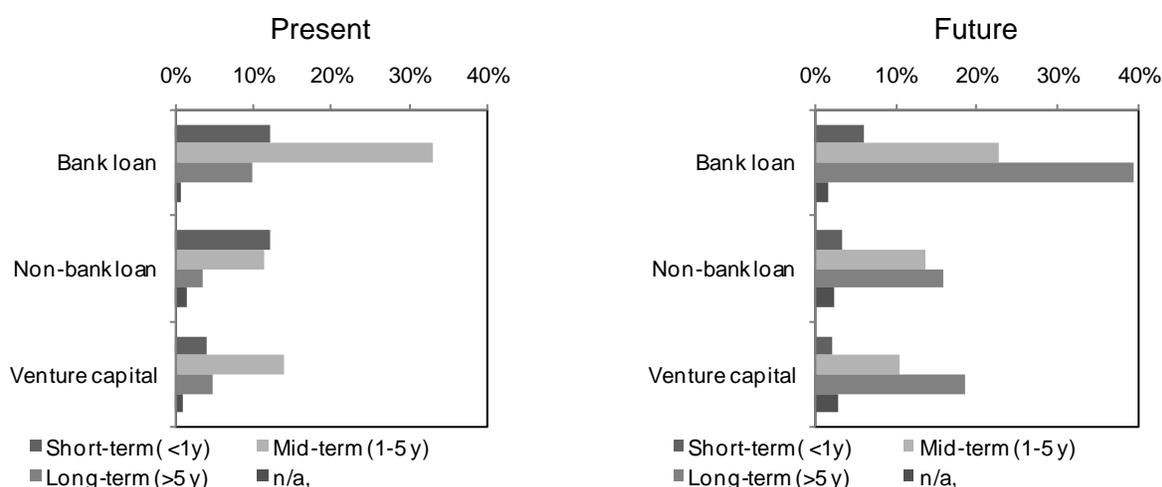
Note: "Present" refers to provided loans; "Future" refers to desired loans.
Source: Author's compilation.

4.   A New Regime of SME Finance

As the banking sector dominates the financial system in most Asian countries, how to enhance banks' lending efficiency to SMEs is a core issue in the context of financial inclusion. How to expand financial accessibility for SMEs—by creating diversified funding alternatives for them at each stage of development—is another core pillar. These are key policy targets for scaling-up the SME sector. From a different point of view, how to establish a proper financing scheme for microenterprises is also a critical policy issue of financial inclusion, which is related to policies for poverty alleviation and social welfare enhancement. This section discusses three approaches to increasing financial access for SMEs, including microenterprises, with possible policy implications for inclusive economic growth in Asia.

4.1   Bank Lending Efficiency

With indirect financial systems dominant in Asia, enhancing the efficiency of bank lending for SMEs is a priority policy issue. To this end, it is effective to elaborate the strategic framework needed to reduce the supply–demand gap of SME finance caused by information asymmetry

and high transaction costs, through public-private initiatives. The policy framework to improve SMEs' bankability should address the following key areas:

    (i)   proper financial and legal infrastructure for SMEs,

    (ii) innovative financing instruments that facilitate SMEs' access to banks, and

    (iii) sustainable schemes for mitigating SME credit risks.

The establishment of proper financial infrastructure such as credit bureaus and collateral registries is highly recommended at the national level to mitigate asymmetric information conditions. In particular, creating a consolidated SME financial data platform or web portal is effective for financial institutions to reduce the costs of producing information under imperfect market conditions. According to an IFC report, credit bureau coverage in developing economies is much lower than the Organisation for Economic Co-operation and Development (OECD) country average.[9] Credit bureaus reduce obstacles in small firms' path to accessing finance and increase their use of external financing.[10] If lenders use comprehensive financial data including both positive and negative information, it is expected to decrease credit default rates and increase loan approval rates in SMEs.[11] These findings imply that SME "informatization" positively correlates with sound financial accessibility for SMEs. Furthermore, a credit risk database is useful in controlling excessive competition among banks and excessive credit reliance among SME clients. An annual white paper on SMEs prepared by the government could also help to improve the condition of information asymmetry. However, the costs and benefits of creating a data system and the manner of securing technical staff to maintain the database should be carefully examined. Besides, a well-established legal infrastructure for secured transactions is another key to promoting SME lending transparency and safety.

In the banking sector in Asia, it is common for banks to take real estate security (collateral) and/or third party guarantees to hedge credit risks. However, due to information asymmetry, excessive collateral and guarantee requirements have often been imposed on SME borrowers. In addition, movables and accounts receivable are not regarded as collateral in many cases. To improve this condition, innovative financing instruments that are not as dependent on real estate securities and third party guarantees should be developed. For instance, asset-based lending (movables and accounts receivable as collateral) and credit-score-based lending are promising alternatives to mortgage-based lending. These instruments will enable banks to expand their client base, especially among SME borrowers, and reduce transaction costs. However, the establishment of a collateral registry system with proper regulations is a precondition for effective asset-based lending. Moreover, credit-score-based lending can be inflexible due to the rote assessment of borrowers, in which banks may fail to consider special conditions of SME borrowers.

Developing a financing scheme for the SME cluster is another innovative approach to enhance the efficiency of SME finance and to stimulate intraregional trade in Asia. Clustering is beneficial

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[9]   According to the IFC stocktaking report to the G20, public registries cover only 0.8% and 7.2% of adults in South Asia and East Asia/Pacific, respectively, while covering 8.8% in the OECD countries. Private bureaus cover 3.3% and 14.4% of adults in South Asia and East Asia/Pacific, respectively, while covering 59.6% in the OECD countries.

[10] The IFC report shows that 27% of surveyed small firms feel high financing constraints in countries with credit bureaus and 49% do so in countries without credit bureaus. In addition, 40% of small firms feel optimistic about bank loans in countries with credit bureaus and 28% do so in countries without credit bureaus.

[11] The IFC report shows that countries with credit bureaus covering both positive and negative information reported a default rate of 1.9% and a loan approval rate of 74.8% on average, while countries having only negative information reported a default rate of 3.4% and a loan approval rate of 39.8%.

for SMEs, especially smaller manufacturers, because it facilitates connections with the external economy including suppliers, workers, trade parties, and financial institutions. Financial institutions may be unwilling to finance small borrowers on an individual basis due to the high cost of frequent small credit provision, but they may be willing to provide loans for a cluster that assembles small borrowers at a reduced cost. A mechanism to channel funds smoothly to individual SMEs through a proper credit screening system is necessary to implement cluster financing.

To mitigate risks associated with SME finance and to enhance the bankability of SMEs that lack collateral, the importance of credit guarantees has been increasing, with varying effects. For instance, the Republic of Korea has a well-developed public credit guarantee system with a corporate credit information provider called the Korea Enterprise Data (KED). [12] KED was originally established by the Korea Credit Guarantee Fund in 2004, but spun off later as an independent credit information supplier due to increasing demand for accurate information in credit screening. The public credit guarantee system, backed by a well-organized credit information system, contributes to the efficiency of lending to SMEs as proved in the Republic of Korea.

Japan has also established a public credit guarantee network of 52 credit guarantee corporations (CGCs), supported by a private-led credit information system. The CGCs' guaranteed loans are generally insured by the Japan Finance Corporation, a public financial institution. However, a public system always carries the risk of bloating the national budget, which makes continuous guarantees difficult to maintain. In Indonesia, the public-guaranteed loan program, Kredit Usaha Rakyat (KUR), has sharply boosted microenterprises' access to banks,[13] but some systemic problems have been discussed as concerns. For instance, the first and second screening of guaranteed credits for SMEs may not be well organized due to the banks' expectation of credit risk mitigation through the guarantee, and the guarantee institution's insufficient human resources for screening loans. In case of a partial guaranteed scheme (e.g., 70% guarantee for loans), banks may take collateral to cover their own credit risks, which may not prevent moral hazard. In general, credit guarantees are a difficult business to operate profitably. How to create a sustainable business mechanism is key to establishing a well-functioning credit guarantee system in Asia. Securitization of SME loan assets is another challenge to controlling the risks involved with SMEs.

4.2 Diversified Financing Mechanisms

Appropriate funding instruments for SMEs vary depending on their needs by stage of development: (i) seed, (ii) start-up, (iii) early, (iv) expansion, (v) steadily growing, and (vi) mature. Besides bank financing, non-bank financial institutions, venture capital, and capital markets should also be sophisticated and properly be utilized as financing venues for SMEs. The creation of alternative financial infrastructure can be an effective way for SMEs to mitigate the impact of external shocks such as financial crises. Taking account of the expected long-term growth in Asia, it is critically important to diversify funding instruments for growth-oriented SMEs based upon their needs. The following areas should be addressed to support an environment for SME growth and development:

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[12] The public credit guarantee system in the Republic of Korea comprises three institutions: (i) Korea Credit Guarantee Fund, (ii) Korea Technology Finance Corporation, and (iii) Regional Credit Guarantee Fund.

[13] KUR was started in late 2007 to provide loans to new clients (microenterprises) with a 70% guarantee of credit by state-owned guarantee institutions (PT Askrindo and Perum Jamkrindo) through six designated commercial banks, with a maximum lending limit of IDR500 million and an interest rate of 16.0%. With support from KUR, SME credit accounted for 52% of total outstanding commercial bank loans in 2010 in Indonesia.

(i)   non-bank financing schemes to supplement bank financing for SMEs,

(ii) capital markets for high-end SMEs and support for the venture capital industry,

(iii) the base of professionals needed to promote SMEs' access to finance, and

(iv) financial education.

Credit cooperatives, credit unions, pawnshops, finance companies, post offices, and nongovernmental organizations (NGOs) can all be providers of small credit and supplementary services such as financial leasing and factoring. These entities can be collectively categorized as non-bank financial institutions (NBFIs) that complement the banking sector. However, the regulatory environment for NBFIs is not well organized in many Asian countries. In Indonesia, the state-owned pawnshop Perum Pegadaian has developed its own microcredit products but its financial services have yet to be regulated by law. [14] A well-established regulatory and supervisory environment is a prerequisite for NBFIs to function well in SME finance.

Under the bank-centered financial system, the securities market for SMEs is still in the early stage of development in Asia. Some countries have pursued a trial and error approach for creating a well-functioning equity financing venue for growth-oriented SMEs, which can be roughly classified into four types: (i) organized market specially designed for SMEs (e.g., SME Board and ChiNext [venture board] under the Shenzhen Stock Exchange); (ii) over-the-counter (OTC) market modeled on the NASDAQ (e.g., KOSDAQ); (iii) alternative investment market (AIM) modeled on the United Kingdom's AIM (e.g., CATALIST under the Singapore Exchange and Tokyo AIM under the Tokyo Stock Exchange); and (iv) issuing and trading venue for unlisted stocks modeled on the US-Pink Sheets (non-exchange market) (e.g., Green Sheet in Japan). Behind all of these practices are information technology, and electronic trading and communications networks.

In most middle income Asian countries, the SME equity market has yet to be developed, but there are signs that SMEs are seeking a funding alternative to banks. The survey conducted in Indonesia indicated that SMEs were willing to tap an equity market designed specifically for SMEs, with more than 78% of all surveyed firms expressing interest (Figure 8). They had the intention to grow further through access to safe money, especially long-term funds of more than 5 years, by means of formal finance or diversified funding instruments. Although they still tended to have negative preconceptions of equity finance due to its stringent requirements, demand for such finance seems to be increasing. Also, the surging trend of personal computer penetration for average households and SMEs will enable policymakers and market organizers to develop cost-effective market infrastructure for SMEs. The creation of a special equity market for SMEs is worth examination among middle income countries. However, in these cases, the market design should be scrutinized in terms of the real needs of SMEs, with a mechanism to support their capacity to tap equity markets (supporting infrastructure) and to attract investors, considering which type of market infrastructure would be the best fit for SMEs in the country context. As a possibility, the creation of a Green Sheet-type market may be effective as an "exercise market" for smaller but growing SMEs, especially among lower middle income Asian countries. This will provide a chance for them to learn more market rules and obligations, such as disclosure, before tapping the organized market. However, such an exercise market should

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[14]   Perum Pegadaian is regulated as a state-owned enterprise (Regulation No.10/1990 and No.103/2000 of the Ministry of State-Owned Enterprises). As for pawn business, only colonial era regulations exist (Staatsblad No.81/1928). Bapepam-LK, as the regulator for NBFIs, is currently examining the Pawnshop Law.

have functions of both demand creation and liquidity enhancement, with accompanying policy support measures.[15]

Fostering the venture capital industry is an issue related to creating and vitalizing a special equity market for SMEs. The venture capital company is expected to be an initial risk capital provider for SMEs through active capital participation, but the lack of appropriate securities markets for SMEs and their lack of familiarity with direct finance under the dominance of indirect finance impede the development of a venture capital industry in Asia. To improve this condition, with or without establishing a new market infrastructure, the regulatory and policy framework to encourage venture capital companies to invest in SMEs should be well organized. For instance, the PRC has introduced a set of venture capital regulations covering investments, in which foreign-invested venture capital companies or funds are required to receive regulatory approval while domestic venture capital companies or funds are required to register to enjoy preferential tax treatment.

Due to the fundamental disadvantages of SMEs in tapping capital markets, supporting professionals—such as certified public accountants (CPAs) and SME consultants—are indispensable to SMEs' efforts to fundraise from equity markets at a reasonable cost. The key areas to be supported by professionals are accounting, corporate information disclosure, corporate governance, and internal control systems.

There is a type of unknown risk on both the supply-side and demand-side in capital markets. In general, policymakers and market organizers are hesitant to launch an SME capital market due to the preconception that it would be a risky market with cost inefficiencies as well as a lack of demand for equity finance from SMEs. Meanwhile, SMEs have little familiarity with equity finance due to a lack of information on capital markets (e.g., benefits and obligations) under the bank-centered financial system. However, information technology will make the development of a cost-efficient SME market possible, and different countries' best practices can be shared across the region to help others consider a proper market design. Also, the government's socialization program on financial and capital markets can widen funding options for high-end SMEs. To mitigate the recognition gap between policymakers and market organizers on one side and SMEs on the other, financial education or peer-learning networks should be developed through public sector or business to business (B2B) initiatives. Such networks have often been attributed with accelerating financial access for SMEs in Asia.

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[15] As demand creation measures for the primary market, disclosure support for issuers by CPA networks and/or securities firms (as handling members), preferential treatment for the change of SMEs' legal status to incorporation, and tax incentive schemes for investors can be considered. As liquidity enhancement measures for the secondary market, a market-making system, an obligatory shareholder allotment, and a valuation system of unlisted stocks can be examined.
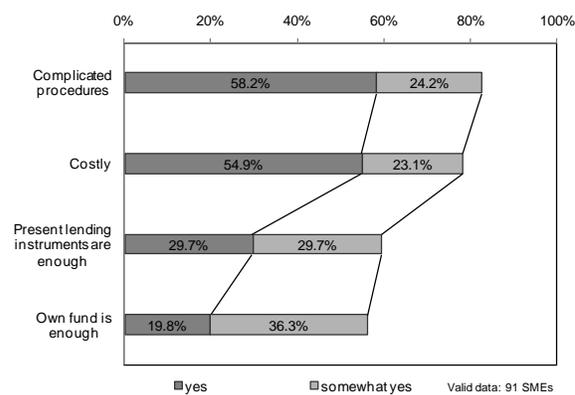
Figure 8: Capital Market for SMEs—Indonesia
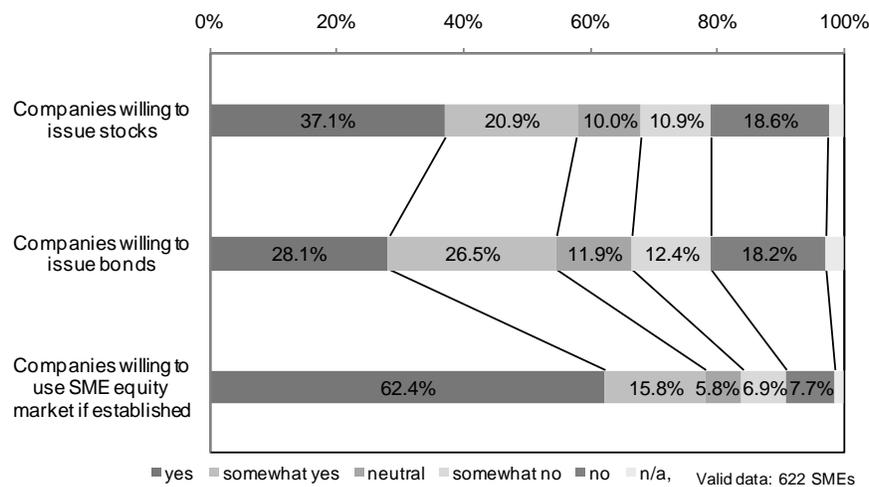
Reasons for Companies' Willingness or Unwillingness to Acces an SME Equity Market

A. Companies Willing to Access an SME Market
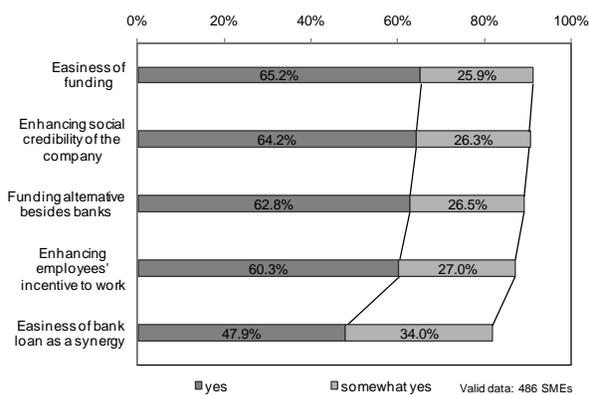
B. Companies Unwilling to Access an SME Market

Source: Author's compilation.

4.3   Financing Schemes for Microenterprises

The stability-oriented SMEs—mostly family-owned or self-employed microenterprises with small-scale routine operations within a limited area—are the flip side of the growth-oriented SMEs. Their start-up money for business relies mostly on their own capital and/or informal finance from family, relatives, friends, local communities, and money lenders. Their access to formal financial institutions such as banks is quite limited on the whole. A large number of microenterprises inhabit Asian countries and their competitive nature is generally fierce, behind which they are hampered by a severely constrained funding environment. Even if the poor launch a new business, the chronic shortage of funds makes business continuity very difficult, leading to lost opportunities for earnings and limited chances to escape poverty. Thus, many countries consider the establishment of a pro-poor funding environment, especially one that targets microenterprises, a primary goal of social policy because of its potential impact on poverty alleviation and social welfare enhancement. To this end, most Asian countries have

focused on microfinance, which has led to world-renowned success stories. Facilitating measures include the following:

(i) fostering grassroots microfinance institutions (MFIs) with a proper regulatory framework to reach out to the poor,

(ii) supporting capacity and human resource development among MFIs, and

(iii) establishing an external evaluation and/or rating system for MFIs.

There is common recognition that microfinance is an effective tool for poverty reduction. It is generally explained as being a set of financial services for the poor and microenterprises typically underserved by formal financial institutions, covering a variety of products such as microcredit, microsaving, microinsurance, lease, and remittance services. For the poor who have encountered difficulty in accessing formal finance, microfinance enables them not only to escape poverty by raising small funds for business, but also to make their business grow further. There are many success stories of microfinance reaching the poor all over the world that demonstrate its effectiveness, including Grameen Bank in Bangladesh, Banco Solidario in Bolivia, and CVECA (Savings and Loan Village Bank) in Mali.

MFIs should be sustainable entities that constantly provide financial services for the poor. To this end, it is crucial to foster grassroots MFIs with a proper regulatory framework so that they can reach out to the poor.

In general, fragile management systems and insufficient numbers of skilled workers are serious factors impeding the development of a sustainable MFI industry. Regulation alone is not enough to vitalize a sound MFI industry. Besides establishing the regulatory framework, educational support for MFIs in the form of capacity building and human resource development is another prerequisite.

The external assessment of an MFI's soundness and transparency can enhance its social credibility, improve its business and funding environment, and promote its financial outreach to the poor. Therefore, an established evaluation system for MFIs can accelerate the development of the MFI industry. As a possibility, governments or aid agencies could contribute technical assistance for developing a standardized assessment and rating system for MFIs.

5. Conclusion

SMEs comprise a variety of firms in terms of sector, scale, and management style. Therefore, a one-size-fits-all approach to SME financing would be useless. The appropriate financing scheme differs by growth stage of the SME and by level of economic development of the host country. Moreover, SME finance is not a single solution for creating a resilient SME base toward inclusive economic growth in Asia. It is necessary to establish organic coordination among regulations, policies, and the elaboration of both financing and supporting infrastructure involving all players in this field, including policymakers and regulators, academies, financial institutions, and SMEs. In sum, what is needed is a holistic approach to financial inclusion strategies. The relationship between SME promotion and finance is like the wheels of a car: if all components are not spinning in synchronization, a balanced, sustainable, and resilient Asia will not be realized.

Global organizations—such as the G20, Asia–Pacific Economic Cooperation (APEC), and Association of Southeast Asian Nations (ASEAN)—have attached great importance to financial inclusion as a global policy agenda. The G20 launched the Financial Inclusion Experts Group (FIEG) in 2009 to support financial access for the poor by way of the Access Through Innovation Sub-Group (ATISG), and to examine innovative financing schemes for SMEs through the SME Finance Sub-Group (SMESG), whose efforts were moved to a policy discussion forum with wider global communities, the Global Partnership for Financial Inclusion (GPFI), in 2010. GPFI has taken over the activities of SMESG. APEC also organized the Asia–Pacific Financial Inclusion Forum in 2010 where SME finance and growth strategies were key issues on the policy agenda. Both the G20 and APEC initiatives have focused on how to scale-up access to finance for SMEs through public–private partnerships. As for regional commitments to SME sector development, the ASEAN Economic Community (AEC) elaborated the Strategic Action Plan for ASEAN SME Development 2010–2015 to enhance SMEs' competitiveness and resilience, with improving SMEs' access to finance as one of the goals in its action plan.

Including SMEs at all stages of the formal financial system is beneficial for rebalancing the global economy. SMEs are a critical component of economic and social stability in a country. Improving financial access for SMEs is expected to bring many benefits, including enhancing production quality, increasing new business opportunities, stimulating investment and consumption at the national level, and mobilizing excess corporate savings. Financing the SME cluster will improve the business efficiency of smaller export-oriented manufacturers. Enhancing access to finance for subcontracted SMEs will promote intraregional trade. These policy-oriented measures at the national level are expected to indirectly accelerate global rebalancing. Furthermore, establishing financial infrastructure to support micro start-ups and microenterprises will stimulate income gains in low-income households and thus contribute to poverty alleviation, social welfare enhancement, and even the development of the corporate base.

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A New Regime of SME Finance in Emerging Asia
Empowering Growth-Oriented SMEs to Build Resilient National Economies

The SME sector is a key economic driver in most countries. However, poor access to finance is one of the critical factors impeding SME development. Given the bank-centered financial system established in Asia, the banking sector takes a pivotal role in SME finance, but on the other hand, there is the limit of bank financing for SMEs under the continuing global financial uncertainty. This paper discusses possible financing modalities for growth-oriented SMEs toward a resilient regional economy in Asia.

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Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.