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Regional Financial Cooperation of SMEs' Financing in the Asia-Pacific: Lessons from the EU

Eunsook Seo

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Executive Summary

The recent downturn in the global economy is demanding new growth models from APEC members, and SMEs are expected to play a crucial role in raising productivity and in sustaining economic growth by facilitating technological advances, as well as in job creation. Given that SMEs have generally limited access to finance due to information asymmetries and the riskiness of their businesses, public support by government such as credit guarantee schemes (CGS) are a very important tool for supporting SMEs. SMEs at early stages of development (or start-ups) have risk profiles that favor equity financing or financing through the capital market.

For this to work, however, the large-scale financing is required. Therefore it will work best in a developed equity market such as that of the US. When the condition above does not hold, two alternatives are possible. The first option is to realize the large-scale funding in an inter-temporal way. This gives rise to the need for a policy lending program (or government credit) resembling a typical European-style policy financing scheme. Second option is to expand the financial market. For this to work, establishing universality of contracts through economic integration is necessary. Universality of contracts means equal protection of property rights for incoming foreigners who enter into contracts in the host country. In this case, capital inflow is also needed from countries outside the integrated economic bloc.

EIB (European Investment Bank) aims to implement the EU's SME Initiative through its SME support programs. The European Investment Fund is responsible for allocating SME capital to stimulate the SME sector, on behalf of the EC. The experience of the EU points to the necessity of non-bank financing programme to add to bank financing for SMEs. Thus EIF is also shifting its focus from provision of early-stage guarantees to development of various capital market-based instruments for SMEs.

This study ends with suggestions for APEC regarding SME financing policies. First, PCGS (public credit guarantee system) is better in the very early stages of financial cooperation. Second, SME financing policy should include both CGS-style and market-based financing. Third, it is necessary to settle on a definition of SMEs based on unified criteria. Fourth, a PCGS-style support scheme is needed to develop within the APEC framework. Lastly, an equity market-based support system specialized for SMEs should be established. This report also suggests action plans to make an investment fund centered on SMEs.

Keywords: SME Financing, Market-based Financing, Public Credit Guarantee, APEC Cooperation

JEL Classification: G1, G23, H81, F53

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Contents

Tables

Figures

Boxes

Regional Financial Cooperation of SMEs' Financing in the Asia-Pacific: Lessons from the EU

Eunsook Seo

I. Background

SMEs, which constitute more than 90 percent of all firms in most countries, are known to play a crucial role in sustaining economic growth by generating technological advances in the process of commercializing innovative business ideas, as well as in creating jobs. At the same time, SMEs in most countries also experience far greater constraints compared to large firms in gaining access to finance. In general such constraints are due in large part to information asymmetries and agency costs between lenders and borrowers, which serve to widen the financing gap in the SME financial market and act as a drag on the development of SMEs.

In general, financial integration allows banks or investors to operate across borders and enables them to make use of an opportunity of economies of scale to reduce costs. Also, the entry of regional banks or foreign investors into domestic markets directed to various financial instruments and lower prices. Thus, financial integration might be important for reducing the financing gap in the SME financial market[1].

Issues of financial integration for SMEs in Asia-Pacific Economic Cooperation (APEC) are also important in encouraging cross-border investment to support growth in the region. Initiatives such as the Asia Region Funds Passport (ARFP) and the Asian Bond Markets Initiative (ABMI) enable a more various investment opportunities and strengthen the region's capital market to attract finance for growth. Australia, Korea, New Zealand, and Singapore signed the ARFP Statement of Intent at the 2013 APEC Finance Ministers' Meeting. These four APEC economies, along with the Philippines and Thailand, have also participated in the joint consultation on the ARFP arrangements from April to July 2014. ABMI, another finance-related initiative is pursued by the ASEAN+3 economies (10 ASEAN members plus China, Japan, and Korea) to foster the development of local currency bond markets to make better use of Asian savings for Asian infra investments. Currently, ABMI focuses on various initiatives related to the following four tasks: promoting issuance of local currency-denominated bonds, facilitating the demand of local currency-denominated bonds, improving the regulatory framework, and improving related infrastructure for the bond markets. The potential benefits of the ASEAN financial integration surpass their direct influences on regional financial integration. OECD (2013)[2] claimed that "The initiatives will also likely help strengthen linkages between ASEAN and international financial markets, including those in the rest of Asia and in more advanced economies. Moreover, the efforts are already creating important incentives for member countries to

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1 Dalberg (2011).
2 OECD (2013), p. 334.

strengthen their financial systems in preparation for integration."

The ASEAN community's financial integration and economic cooperation among ASEAN+3 (Korea, China, and Japan) will likely expand access to finance for SMEs in APEC. At first glance, a widened financial market may be taken to mean relaxed financing constraints for SMEs, which raises the prospects for narrowing the financing gap mentioned above. That is the reason why they are concerned to adopt well-designed common policies to foster the growth of SMEs through diversified access to finance.

However, from the perspective of open financial markets where the financial market integration or cooperation takes place, it is equally possible for national disparities in terms of tax barriers, firms' credit worthiness, credit rating systems, etc. to complicate efforts toward the formulation of common policies. Worse, the problems of information asymmetries and agency cost may be even magnified on an international scale.

Financial markets in APEC members, in fact, have widely varying systemic features and levels of development. For example, the United States, Australia, Korea, Japan, Hong Kong and Singapore have relatively more developed financial markets than the rest; the banking industries in Thailand, Malaysia, and Indonesia are more developed than their capital markets; there is even a country, Brunei, which does not have a stock market. Such national heterogeneity could mean that the impact of financial cooperation among APEC members on SME financing will be different from that of the EU, which tried various financing policies to achieve a common goal of fostering the growth of SMEs. Nevertheless, lessons from the EU's experience of implementing common policies targeting SMEs and their implications for APEC can be quite significant.

The EU's support policies for SMEs have been developed as follows. In the

1980s, a community-wide SME support policy was launched without enthusiasm for such policy in the EU and without even a shared definition of SMEs among countries. The EU's policy objectives were also too narrow and lacked focus for SMEs. From the 1990s the EU adopted concrete objectives including the streamlining of the administrative and regulatory environment, improving the financial environment, and enhancing competitiveness through R&D. In the 2000s, although concrete policy tools remained largely unchanged, the policy objective shifted from job creation to innovation. EU support in the form of debt financing still prevailed from 2007 to 2013, but post-2014, emphasis has been placed on market-based financing including equity financing[3]. In other words, the EU's support policies for SMEs — those focusing on SME financing in particular — are shown to have shifted notably from an emphasis on debt financing in the past to market-based financing as of recently. The EU operates these policies by creating funds centered on SME financing, and with these funds designing diverse instruments tradable in capital markets, which would in turn finance SMEs. The underlying logic for these policies is that since SME finance entails risk, it should be encouraged in markets that allow the trade of risky capital.[4] While differences may exist between countries and economic development levels, a look into the positive impact of SME finance on financial cooperation in the EU is still expected to be relevant.

This study therefore will (1) examine the characteristics of SMEs and financial markets in APEC, (2) derive policy implications from the EU's policies regarding SME financing, and (3) make policy recommendations for stimulating SME

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[3] Kaya (2014); Stallings and Tran (2015).

[4] Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine (2005); Beck, Thorsten and Asli Demirguc-Kunt (2008).

growth through regional financial cooperation to enhance SME financing in APEC. In particular, countries that have led ASEAN's financial integration until now are Singapore, Malaysia, Thailand, Philippines, and Indonesia; as these members within APEC are engaged in major financial integrated-related activities. Thus most of this study will be focused on these ASEAN countries, along with Korea, China, and Japan.

II. Overview of Macroeconomic Environment, SME's Financing and Financial Markets in APEC

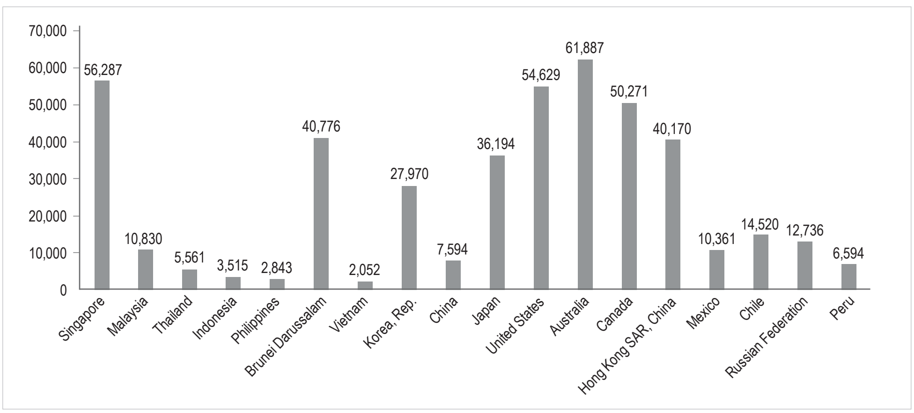
In chapter II, an overview of SME finance-related policies in APEC must be informed by a detailed examination of the macroeconomic conditions, economic weight of SME's, key SME support policies, financial market structures, and accessibility and level of development of finance in member countries.

1. Macroeconomic Overview

In order to understand the realities of SME financing among APEC members, the macroeconomic conditions of those countries should be examined first. Most Asian countries except for Singapore, Brunei, Korea, and Japan have per capita GDPs below $10,000, while all non-Asian countries except Peru are above $10,000 in per capita GDP (see Figure 1). Differences within APEC are large and there exists a gap between ASEAN and non-ASEAN members in per capita GDP. On the other hand, these ASEAN countries excluding Thailand, deemed the next engines of the global economy, show growth rates which have yet to attain their full potential, averaging just 5% as of the end of 2014 (see Figure 2).

Figure 1. GDP per capita of APEC (2014)

(Unit: US$)



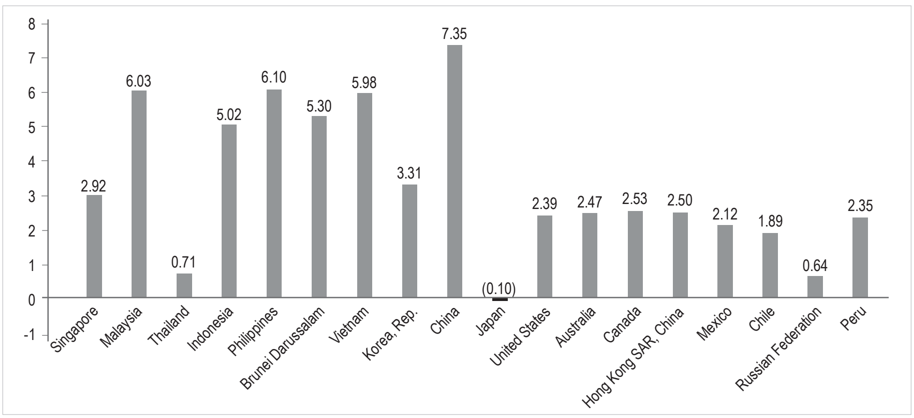
Note: New Zealand, Taiwan, and Papua New Guinea are excluded.

Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 4, 2015).

Despite the global instability, this region is still creating enough jobs to absorb growing domestic labor forces while rapidly building up infrastructure to boost economic productivity. For instance the Philippines, Malaysia, Vietnam, and Indonesia are among the few countries with positive working population growth rates and declining dependency ratios.

Figure 2. APEC GDP Growth (2014)

(Unit: % (yoy))



Note: New Zealand, Taiwan, and Papua New Guinea are excluded.

Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 4, 2015).

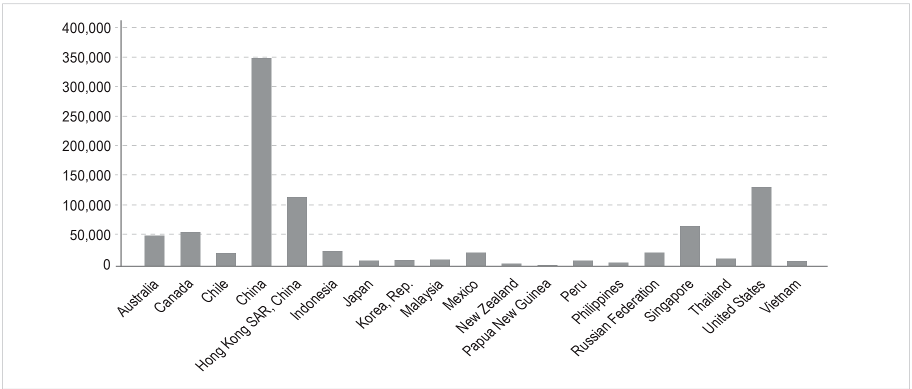
Although this region has yet to realize its full economic potential, it has become a refuge for foreign investors from the continuing after-effects of the global financial crisis. During 2014 almost 151 billion US$ of foreign direct investments went to Asia excluding China, with the latter receiving 348 billion US$[5] (see Figure 3). These conditions should not be taken as cause for complacency, however, as they can potentially lead to the emergence of hot money capable of destabilizing the financial system in the region.

[5] FDI net inflows.

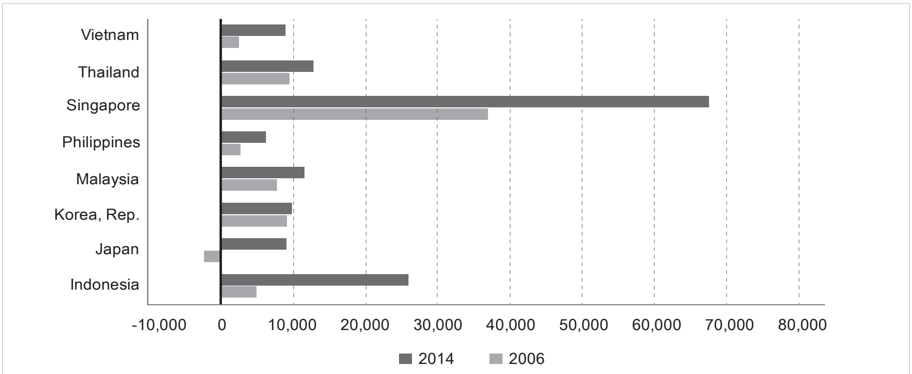
Figure 3. Foreign Direct Investment, Net Inflows

(Unit: BOP, current US$)

(a) 2014



(b) 2006 and 2014



Note: Figures for China, Malaysia, Papua New Guinea, Peru, Vietnam are the end of 2013. Investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net outflows of investment from the reporting economy to the rest of the world and is divided by GDP.

Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 27, 2015).

As of the end of the final quarter of 2014, ASEAN growth rates were higher than expected. The growth rate slightly recovered in 2014 compared with the previous year. Indonesia, the Philippines and Thailand are the main countries in the region that registered lower economic growth in 2014 than in 2013 (year-on-year basis). In the meantime, Malaysia and Vietnam are the main countries that succeeded in achieving higher economic growth in 2014 than in the previous year. In 2014 (see Figure 3), China has experienced an economic slowdown, which declined from 10.6% in 2010 to 7.4% in 2014. APEC GDP growth rate on average has been lower than that of the ASEAN in the past decade (see Figure 4).

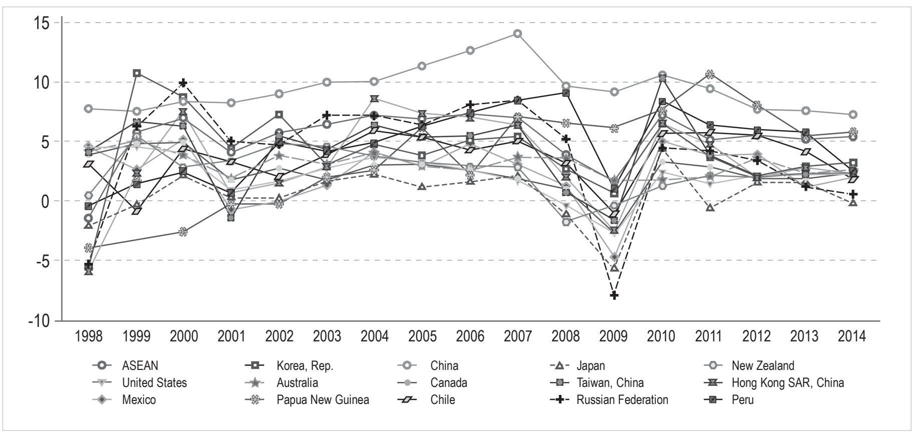
But many experts predict that the fate of APEC in the next couple of years depends more on global events such as the Eurozone crisis or the US quantitative easing plan than on actions by local governments. At any rate, all their achievements so far can be placed in jeopardy, as their economies are heavily dependent on external economic situations.

Unlike ASEAN countries, South Korea and Japan showed average growth rates of less than 3% for 2014 and China also experienced a downturn. China, as the world's second largest economy, recorded the slowest pace of economic expansion in 14 years in 2013. This downturn is partially due to the decline of manufacturing sectors and also the correction of business sentiment indicators. Japan, after recording a confident growth in the first half of 2013, showed signs of weakening but fortunately has recovered to some extent by the "Abenomics" policy which enabled a bold monetary and fiscal push to stimulate its economy (see Figure 4).

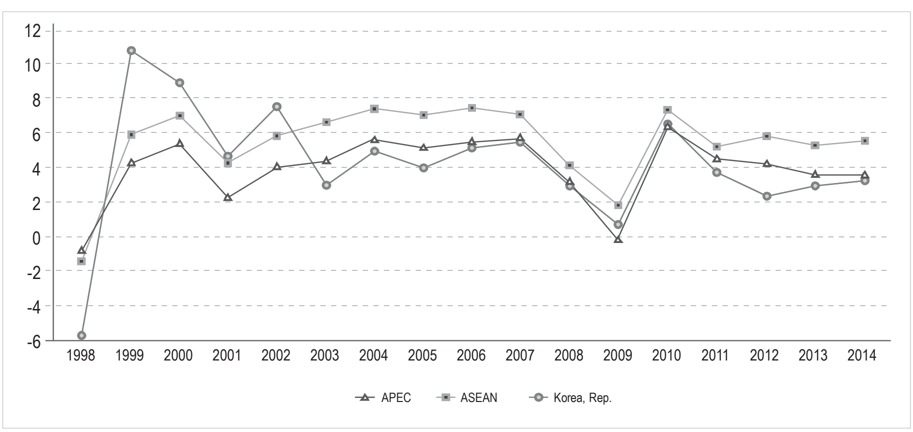
Figure 4. APEC, ASEAN & South Korea GDP Growth Constant Price, 1998-2014

(Unit: % , yoy)

(a) APEC Members



(b) APEC, ASEAN & South Korea



Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 5, 2015).

2. SMEs and SME Financing Policies

The recent downturn in the global economy is demanding new growth models from APEC members, and SMEs are expected to play a key role in raising productivity in this region. As mentioned above, among APEC members in particular, SMEs play a significant role in sustaining economic growth in ASEAN+3 as drivers of innovation and growth by generating technological advances in the process of commercializing innovative business ideas, as well as in creating jobs. SMEs employ on average more than 70% of the private sector labor force in East and Southeast Asia (see Table 1 and Figure 5). This is similar to the EU case (see Table 2). However, in comparison with the EU, their contribution to GDP on average is lower in Asia and the share of employment is slightly higher in East Asian countries such as Japan, Korea, and China. Although there are some differences as described above, the role of SMEs will be integral in the transition of emerging economies of Asia into developed economies from emerging economies. This is in line with the fact that many researchers agree that SMEs are influential contributors to both high- and low-income countries in terms of job creation and economic growth.[6]

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[6] Ferranti and Ody (2007), p. 2.

Table 1. SME Statistics in East and Southeast Asia

	Number of Enter-prises (% of total)	Number of Employ-ees (% 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]	-
Malaysia	99.2 [10]	59.0 [10]	31.9 [10]
Myanmar	92.0 [07]	-	-
Philippines	99.6 [11]	61.0 [11]	35.7 [11]*
Singapore	99.4 [05]	62.3 [05]	46.3 [05]
Thailand	98.5 [12]	80.4 [12]	37.0 [12]
Viet Nam	97.7 [12]	46.0 [12]	26.0 [07]

[ ] = year of latest available data, GDP = gross domestic product, SME = small and medium enterprise..

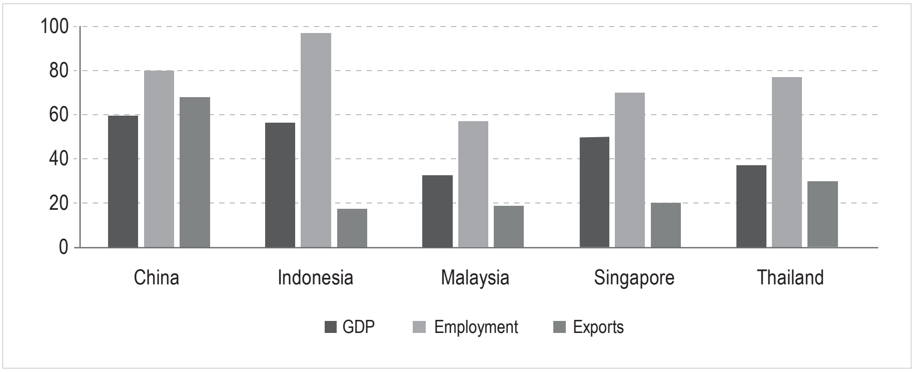
*Contribution to Gross value added

Note: SMEs are defined by national firm classification in their respective host countries.

Sources: Re-Quotation of Shinozaki (2012), p. 2.

Figure 5. SMEs' Contribution to GDP, Employment and Exports in ASEAN

(Unit: %)



Note: Base year 2011 or latest year available. Note: The definition of employment ratios is not exactly the same for each country. The differences are due to activities included or excluded when enumerating the labour force, the coverage of the age range and residential status. The figure for SMEs' contribution to employment for China refers to urban employment.

Source: OECD, ASEAN (2013), "Economic Outlook for Southeast Asia, China and India 2014," http://dx.doi.org/10.1787/saeo-2014-en (Accessed on September 7, 2015).

Table 2. SME Statistics in EU-27 Countries (2011)

	Micro	Small	Medium	SMEs	Large	Total
Number of enterprises,	19,143,521	1,357,533	226,573	20,727,627	43,654	20,771,281
%	92.2	6.5	1.1	99.8	0.2	100
Number of employees	38,395,819	26,771,287	22,310,205	87,477,311	42,318,854	129,796,165
%	29.6	20.6	17.2	67.4	32.6	100
Gross Value added(€millions)	1,307,360	1,143,935	1,136,243	3,587,540	2,591,731	6,179,271
%	21.2	18.5	18.4	58.1	41.9	100

Note: DG Enterprise and Industry, European Commission. This source provides estimates for 2011, based on 2009 figures from the Structural Business Statistics Database (Eurostat). The estimates have been produced by Cambridge Econometrics. The data cover the 'business economy', which includes industry, construction, trade, and services (NACE Rev. 2 Sections B to J, L, M and N). The data do not cover enterprises in agriculture, forestry, fishing or the largely non-market services such as education and health.

Source: Wymenga *et al.* (2011), "Are EU SMEs recovering? Annual Report on EU SMEs 2010/2011 for the European Commission," p. 15.

They are also essential for recovery from the current economic and financial crisis, which has reduced bank lending and affected SMEs in particular because credit sources tend to dry up more rapidly for small firms than for large companies during economic downturns.

While SMEs are considered vital drivers of national economic growth, they face significant obstacles when seeking external financing; and the situation gets even worse during economic recessions, in which financial stringency gives rise to a high probability of bankruptcy. If SMEs start going bankrupt in spite of their technological capacity and growth potential, this would most likely have the consequence of a vicious cycle where economic recovery is slow. This is where the government should step in, to assist SMEs that have failed to secure financing and are facing funding constraints. Such situations are more prevalent in countries with less-developed financial markets or capital markets that lag behind in comparison to banking sectors, which face greater restrictions in financing and have a higher possibility of failing to secure external capital. Considering that intra-regional financial linkage has become even tighter as of late, there is a strong chance that spreads to other nations, and countries, on their own, may find the size of capital markets restrictive in terms of financing. As explained above, however, within the APEC, the ASEAN region displays especially high economic growth rates, and SMEs should play a continuous part in this phenomenon. The EU made efforts toward this end by developing SME financing policies at the EU level instead of for individual nations, involving the expansion of SME financing in size, and the advancement of financial markets by building financial market infrastructure based on economic cooperation. APEC, likewise, needs financial intervention policies for SMEs on its own level.

As seen in Figure 6, a comparison between low-income countries and mid- to high-income countries among Asian APEC nations shows that bank loan financing, nonbank financing and equity financing via capital markets are all developed in a variety of ways and account for a larger share in mid- to low-income countries than in low-income ones. So even within Asian countries in the APEC, SME financing policies differ by nation, and disparities are considerable in terms of the shares of market-based financing.

Table 3 shows the status of equity market for Asian countries within APEC. Korea, Malaysia, Philippines, Thailand, Vietnam, and China are pursuing policies to promote capital market financing for SMEs. Also Table 1 of Appendix summarizes the status of SMEs' policy focused on Asian countries within APEC.

Figure 6. SME Access to Finance in the Asian SME Finance Monitor Countries

(a) Lower Middle-income Countries

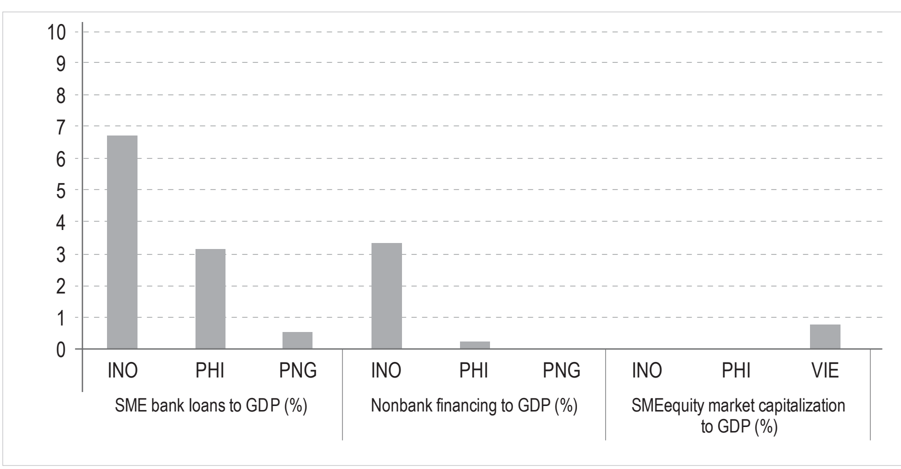
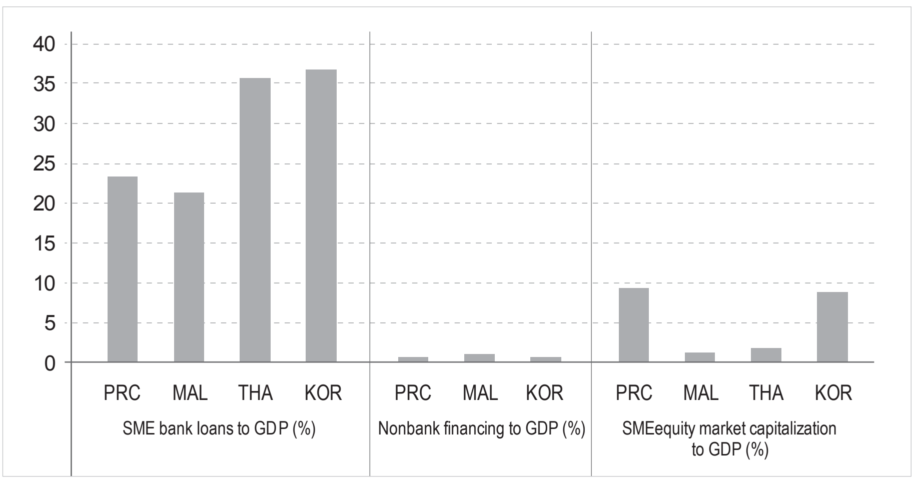


Figure 6. Continued

(b) **Upper Middle-income and High-income Countries**



Note: INO = Indonesia, KOR = Republic of Korea, MAL = Malaysia, PHI = Philippines, PNG = Papua New Guinea, SME = small and medium-sized enterprise, THA = Thailand, VIE = Viet Nam. Data in 2013. Nonbank financing includes financing by microfinance institutions, finance companies, credit unions, leasing, factoring, and venture capital investments. SME equity markets include SME exchanges in IDX (INO [10 SMEs listed]), SME Board/PSE (PHI), UPCoM (VIE), SME Board & ChiNext/SZSE (PRC), ACE (MAL), mai (THA), and KOSDAQ/KRX (KOR). Country classification refers to the World Bank classification for FY2015.

Source: ADB (2014), *ASIA SME FINANCE MONITOR 2014*, p. 19.

Table 3. SME Equity Markets in Selected Asian Countries

Country	Name of Markets	Market Type		Established	No. of Listed/ Registered Companies	Market Capitalization			Year of data	Exchange rate (end 2014)
		Exchange	OTC				LCY (million)	US$ (million)		
People's Republic of China	SME Board	SZSE		2004	732	CNY	5,105,800	834,417	2014	6.12
	ChiNext	SZSE		2009	406	CNY	2,185,100	357,101	2014	6.12
Korea	KOSDAQ	KRX		1987	1,061	W	143,088,000	130,163	2014	1,099.30
	KONEX	KRX		2013	71	W	1,425,000	1,296	2014	1,099.30
	FreeBoard		KOFIA	2000	117	W	12,711,000	11,563	2014	1,099.30
Malaysia	ACE	Bursa Malaysia		2009	107	RM	9,665	2,765	2014	3.50
Philippines	SME Board	PSE		2001	4	P	34,470	773	2014	44.62
Thailand	mai	SET		1998	109	B	392,495	11,907	2014	32.96
Viet Nam	UPCoM	HNX		2009	169	D	37,169,559	1,749	2014	21,246.00

Note: BSE = Bombay Stock Exchange, HNX = Hanoi Stock Exchange, KOFIA = Korea Financial Investment Association, KONEX = Korea New Exchange, KOSDAQ = Korean Securities Dealers Automated Quotations, KRX = Korea Exchange, LCY = local currency, mai = Market for Alternative Investment, NSE = National Stock Exchange, OTC = over the counter, PSE = Philippine Stock Exchange, SET = Stock Exchange of Thailand, SME = small and medium-sized enterprise, SZSE = Shenzhen Stock Exchange.

Source: ADB (2014), *ASIA SME FINANCE MONITOR 2014*, p. 18.

3. Financial Market Conditions in APEC

SMEs in most countries also experience far greater constraints compared to large firms in gaining access to finance. In general such constraints are due in large part to information asymmetries and agency costs between lenders and borrowers, which serve to widen the financing gap in the SME financial market and act as a drag on the development of SMEs. On top of this, SME access to finance is extremely low in countries with underdeveloped financial markets or close to none at all. Reports show that aside from a few high-income countries, SMEs tend to find it difficult to access financial markets (see Table 4).

One obstacle to SMEs' sustainable growth is their financing gap. Many explanations were given for the financing gap, addressing both the supply and demand side of funds. The most generally mentioned reasons were asymmetric information, lack of collateral in SMEs, and the conservative nature of financial markets, which tends to avoid investment in risky assets. In this study, International Finance Corporation (IFC) Enterprise Finance Gap Database will be used instead of direct estimation. In general, the supply side of SME financing is more important than the demand side because SMEs are always under financing constraints. Thus, it would be useful to first examine the financial market for potential supply of funding for SMEs. The credit value gap for SMEs tracked by IFC is shown in Table 3. Thailand, Indonesia, Korea, China, Hong Kong, Mexico, Chile and Russia have a larger gap in total credit value than the rest of APEC members. Also, smaller firms have greater limitations in terms of access to finance, so their funding gaps are larger. The larger firms, on the other hand, have easier access to financing and therefore have smaller financing gaps. In case of the Philippines, Brunei, China and Chile, larger firms can have larger financing gaps than smaller firms (see Figure

7). This might be due to government support in those countries being focused on smaller companies.

Table 4. SME Financing Gap in APEC: Total

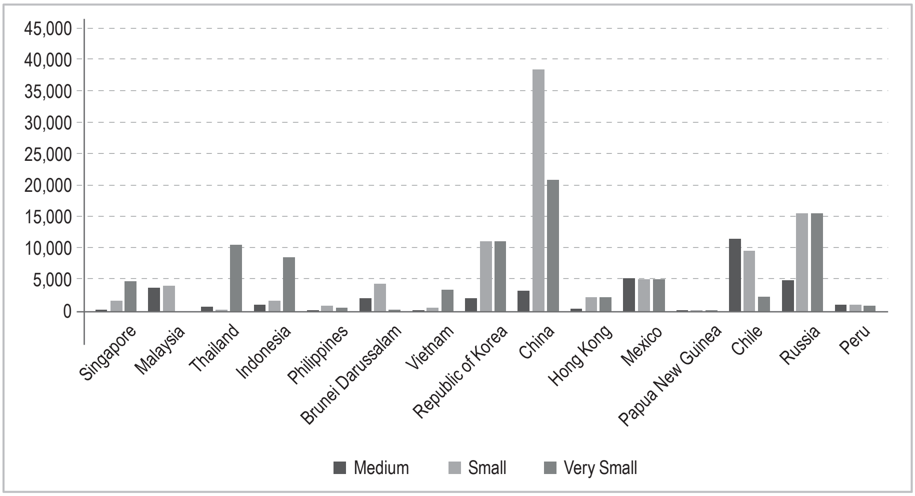
Country	Average credit value gap per enterprise (US$)	Total credit value gap (US$ in million)
Singapore	855,691	7,054
Malaysia	126,235	7,955
Thailand	126,456	11,826
Indonesia	28,747	11,775
Philippines	59,368	2,030
Brunei Darussalam	736,220	7,178
Vietnam	42,249	4,285
Republic of Korea	502,960	28,505
China	43,675	62,727
Hong Kong	733,426	10,222
Mexico	69,291	13,767
Papua New Guinea	60,004	453
Chile	225,501	23,804
Russia	141,458	26,451
Peru	131,983	3,383
APEC	258,884	221,416

Note: In 2010, IFC conducted a study to estimate the number of micro, small, and medium enterprises (MSMEs) in the world, and to determine the degree of access to credit and use of deposit accounts for formal and informal MSMEs. The study used primarily data from the World Bank Enterprise Surveys (ES). In 2011 the data was revisited as new enterprise surveys became available. The resulting database, IFC Enterprise Finance Gap Database, covers 177 countries. This dataset provides summary values for different categories.

Source: World Bank, IFC Enterprise Finance Gap Database, https://finances.worldbank.org/Enterprise-Finance/IFC-Enterprise-Finance-Gap-Database-Raw-Data/2ppx-k958/ (Accessed on September 26, 2015).

Figure 7. SME Financing Gap in APEC: Size of Firms

(Unit: US$ in millions)

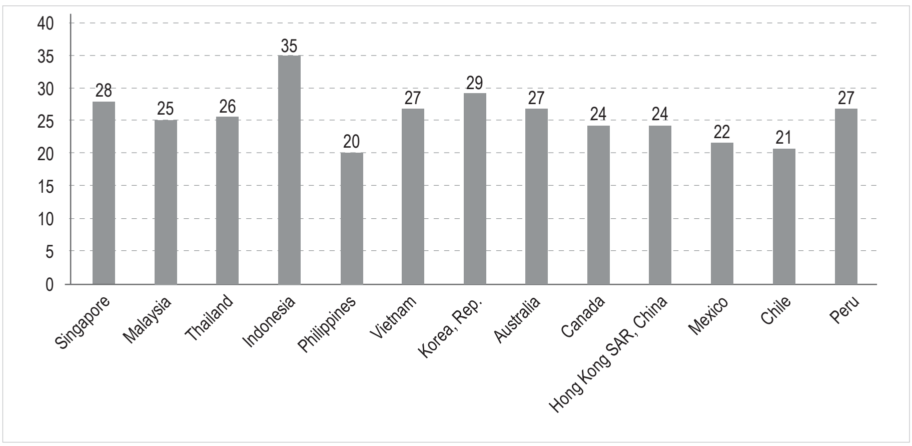


Source: World Bank, IFC Enterprise Finance Gap Database, https://finances.worldbank.org/Enterprise-Finance/IFC-Enterprise-Finance-Gap-Database-Raw-Data/2ppx-k958/ (Accessed on September 26, 2015).

Gross capital formation ratios (% of GDP) in APEC are examined in order to estimate potential investor demand in the APEC financial markets. While Indonesia showed the highest level of Gross Capital Formation (GCF) of 35 percent, APEC countries have high to moderate levels of potential for increasing capital accumulation (see Figure 8). Since GDP per capita is highly correlated with the development of financial markets, so far financial markets in the region have a lot of room for improvement (see Figure 8).

Figure 8. Gross Capital Formation of APEC (2014)

(Unit: % of GDP)

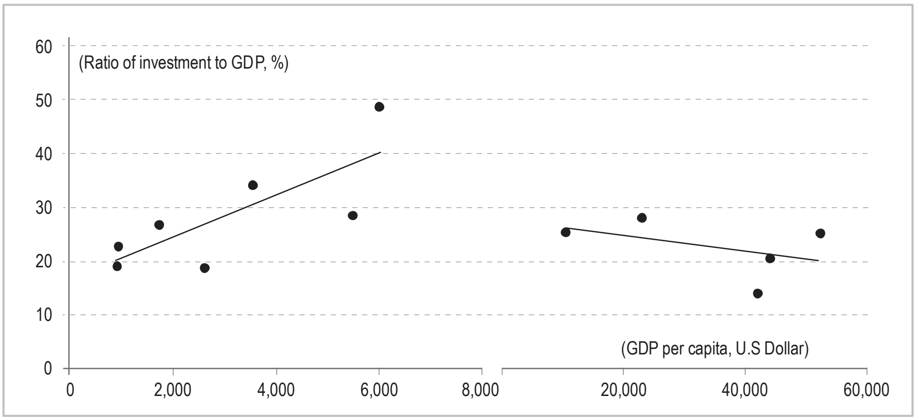


Note: U.S., Japan, China are excluded.

Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 5, 2015).

High income countries including Singapore, Korea, Japan, China, and Malaysia have negative relationships, and the rest of ASEAN+3 showed positive relationships between investment and GDP per capita in Figure 9.

Figure 9. Ratio of Gross Capital Formation to GDP per capita in ASEAN+3



Note: U.S., Japan, China are excluded.

Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 5, 2015).

Domestic credit and market capitalization can be examined to estimate the potential supply of funds. Asian countries except for Indonesia, Philippines, and Brunei have domestic credit by banks equivalent to more than 100% of GDP, while other non-Asian countries have much less, pointing to wide disparities among APEC countries (see Figure 10 and 11).

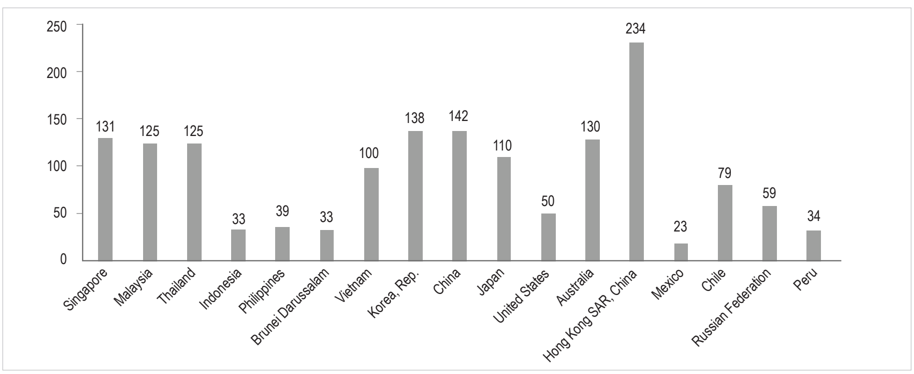
The potential supply of funds can be estimated by looking at the total of market capitalization plus the size of the banking industry. Market capitalization is the share price times the number of shares outstanding[7]. Domestic credit to private

[7] World Bank, The definition of market capitalization of listed companies by World Bank. Listed companies are calculated at the end of the year and do not include investment compa-

sector by banks refers to financial resources provided to the private sector by other depository corporations (deposit taking corporations except central banks), such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment[8].

Figure 10. Domestic Credit to Private Sector by Banks in APEC (2014)

(Unit: % of GDP)



Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 5, 2015).

For some countries these claims include credit to public enterprises.[9] On this measure (excluding the bond market in figure), the potential supply exceeds 200% of GDP in Malaysia, Thailand, Singapore, Hong Kong, Korea, and Australia; exceeds 100% in the Philippines, Vietnam, Japan, and Canada; while it is quite low

nies, mutual funds, or other collective investment vehicles, http://data.worldbank.org/indicator/CM.MKT.LCAP.GD.ZS/countries (Accessed on September 5, 2015).

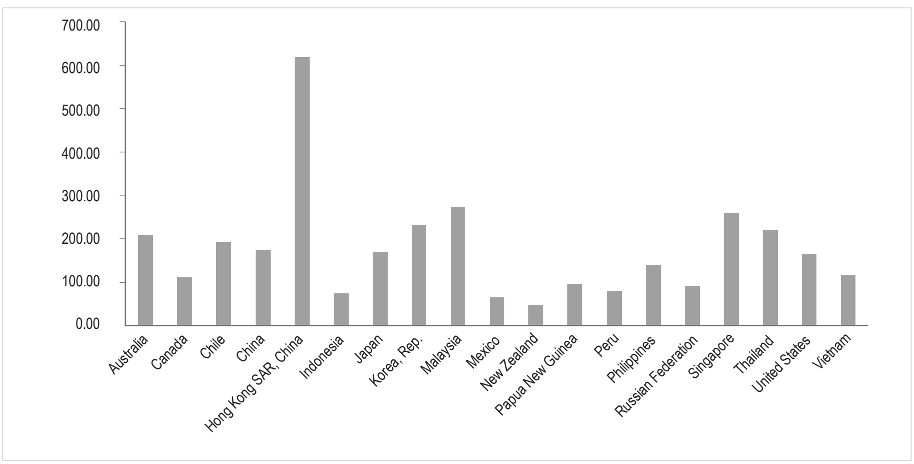
8 World Bank, quote the definition of domestic credit to private sector by banks, http://data.worldbank.org/indicator/FD.AST.PRVT.GD.ZS (Accessed on September 5, 2015).

9 World Bank, quote the definition of domestic credit to private sector by banks, http://data.worldbank.org/indicator/FD.AST.PRVT.GD.ZS (Accessed on September 5, 2015).

for Indonesia, Mexico, New Zealand, Peru, and Russia (see Figure 11). Asian countries are relatively large compared to non-Asian countries in financial market size among APEC members.

Figure 11. Financial Market Size in APEC

(Unit: % of GDP)



Note: Market capitalization of listed companies (% of GDP)+Domestic credit to private sector by banks (% of GDP), Market Capitalization is available on 2012.

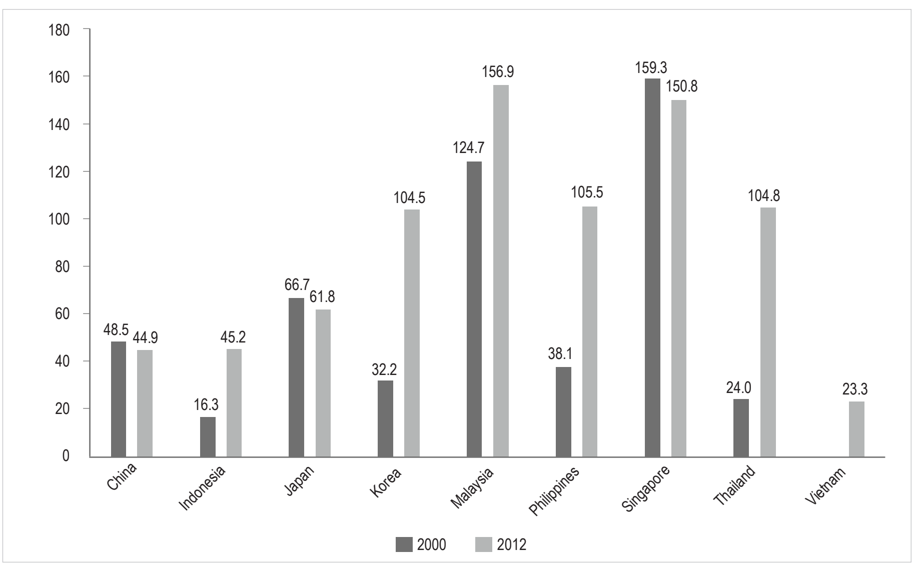
Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 28, 2015).

Separately <Figure 12> shows the market capitalization growth of Asian countries from 2000 to 2010. Most capital markets in Asian countries except for Singapore, Japan, and China have expanded significantly.

In order to compare the speed of the development of capital markets and the banking sector during the same period, the ratio of market capitalization of listed companies (% of GDP) to domestic credit to private sector by banks (% of GDP) could be used as an indicator. Countries where this indicator is greater than 1 have relatively more developed capital markets than the banking sector, while countries where the indicator is less than 1 have more developed banking sector. The countries where capital market sizes have shrunk in 2010 include Australia, Canada, United States, Papua New Guinea, Russia, China, Hong Kong, and Singapore.

Figure 12. Stock Market Capitalization in Asia (2000 and 2012)

(Unit: % of GDP)



Note: Viet Nam is missing in 2012.

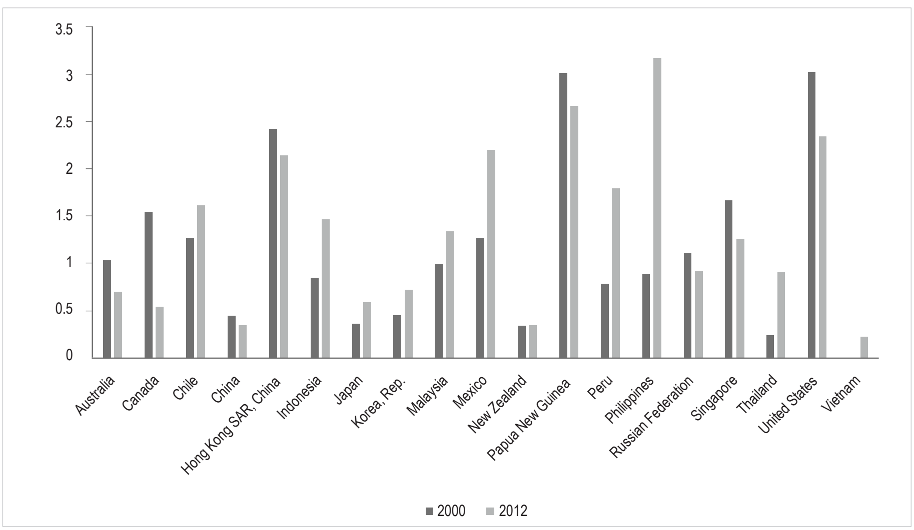
Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 28, 2015).

Indonesia, Malaysia, The Philippines, Singapore, and Hong Kong among Asian countries are those that have more developed capital markets than the banking sector.

On the other hand, Australia, China, Japan, Korea, Thailand, and Vietnam have more developed banking sectors than the capital market as shown by Figure 13.

Figure 13. Capital Market V.S. Banking Industry in APEC (2000 and 2012)

(Unit: ratio)



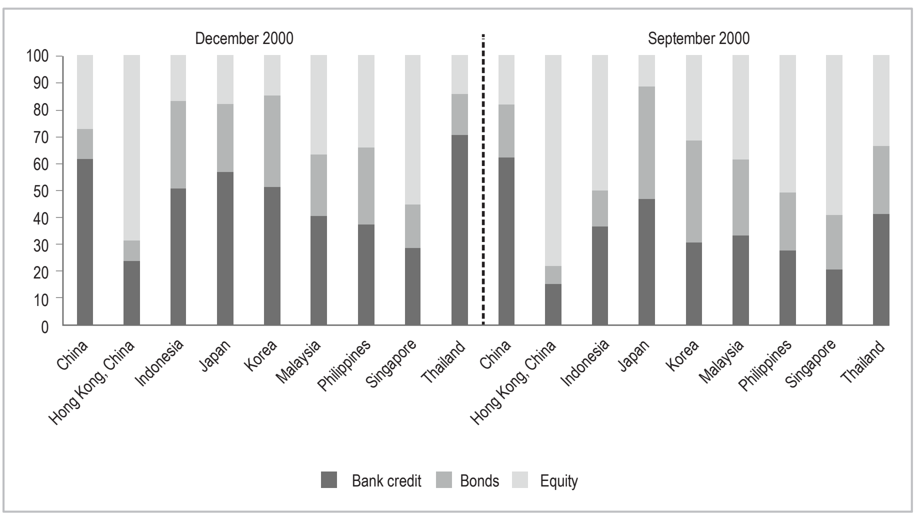
Note: Viet Nam is missing in 2012.

Source: World Development Indicators, http://data.worldbank.org/data-catalog/world-development-indicators (Accessed on September 28, 2015).

Figure 14 shows the total asset composition of the major member countries in Asia, which are similar to the results shown above. The percentage share of financial system assets is calculated on the basis of the total amount of bank credit, bonds, and equity: that of bank credit, as the ratio of total credit outstanding of banks to the total of the three; that of bonds, as the ratio of total bonds outstanding to the total of the three; and that of equity, as the ratio of stock market capitalization to the total of the three. The banking industry is the core of the financial system in the region. Compared with 2010, most of the Asian countries including Indonesia, Korea, The Philippines, Malaysia, and Thailand showed higher dependence on capital market than on the banking sector. China and Japan also showed increased reliance on the capital market through the bond markets.

Figure 14. Financial Structures in Asia (2000 and 2012)

(Unit: % of GDP)



Source: Asia Bonds Online, https://asianbondsonline.adb.org/ (Accessed on May 19, 2015); OECD, ASEAN (2013), Economic Outlook for Southeast Asia, China and India 2014, http://dx.doi.org/10.1787/saeo-2014-en (Accessed on September 7, 2015).

In brief, Asian countries have larger financial markets than non-Asian APEC members. In Singapore, Malaysia, Thailand, China, Japan, and Korea were categorized as advanced financial structures according to data on bank assets per GDP, stock market capitalization per GDP, and bonds per GDP. Meanwhile, the Philippines and Indonesia have financial systems at medium levels of development. It can be said that those countries have a complete financial structure (comprising banks, stock and bond markets) but at a low level and characterized by the size of the capital market that is growing at a faster rate. In most countries, the proportion of the stock and bond market capitalization has increased relative to the proportion of bank assets.

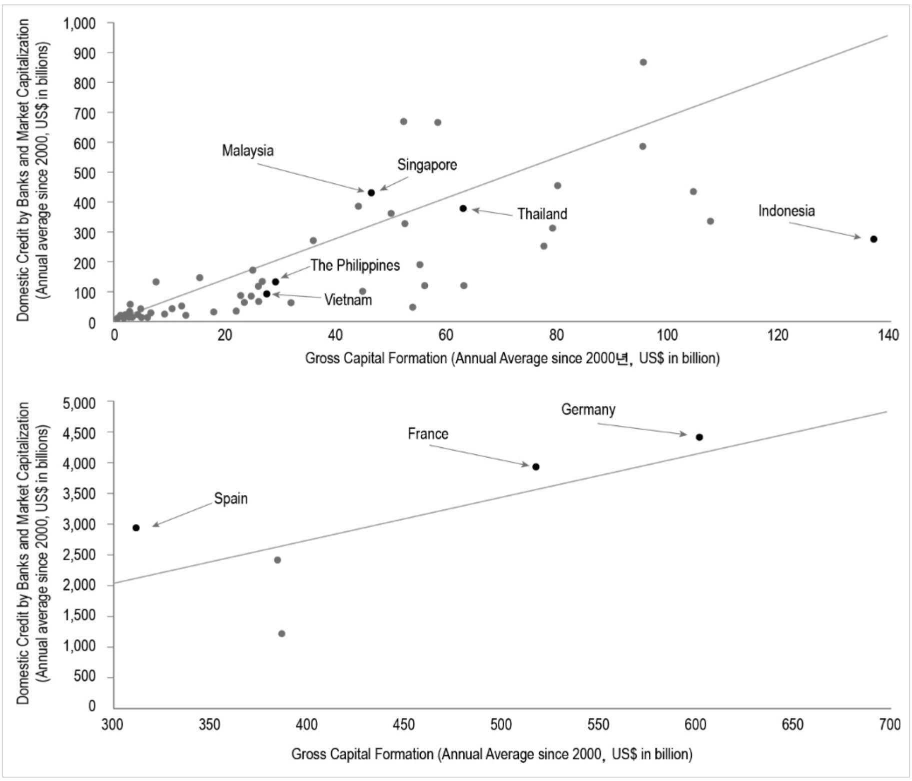
Given the wide disparity among Asian countries, the issues they face, particularly in terms of fulfilling financial integration within the region. For instance, in enhancing financial market development within Asian countries, some countries prioritize the development of their banking systems, while others focus on deepening their capital markets. ADBI (2012) claims that "In time, countries in the first group can catch up by emulating the more developed ones in the second group, by strengthening inclusive access to banking and lending vehicles such as microfinance and innovations that can better serve small and medium enterprises. For more established markets, the task is not so straightforward." As markets develop more widely and deeply, working toward generating synergies among Asian markets may make sense.

In addition to a review of data, a simple regression analysis can used to measure the degree of development of financial markets in ASEAN. If intermediation through financial markets functions efficiently in general, financial investment that leads to real business investment is less likely to be in short supply. A simple regression analysis for 111 countries shows the relationship between the gross capital stock formation which may be considered as equilibrium real demand for capital and the outstanding balance of banks' private sector loans, excluding household loans, and coupled with gross stock market capitalization which is conceptualized as financial market for intermediation of surplus capital in an economy. The sample period is from year 2000 to 2012.

Gross capital stock formation represents real investment, which may be considered as equilibrium real demand for capital and is on the horizontal axis. The vertical axis represents the scale of the financial market which is conceptualized as the site of confluence and intermediation of surplus capital in an economy for input towards gross capital formation. The sum of "Banks' private sector loans excluding household loans and stocks & bonds traded in the secondary market" represents financial claims on total corporate assets. It should be noted that gross capital stock is "new Investment-depreciation" as a flow variable measured over the year and financial claims is for gross capital formation which is accumulated by all firms.

As shown in Figure 15, all ASEAN members except Singapore and Malaysia are situated beneath the regression line. These points mean shortages in those countries of financial investment that leads to real business investment. Of course, fine-tuning of regression specifications, by taking a couple of variables that can affect these results into consideration, is needed to improve the results.

Figure 15. Result from a Simple Regression Analysis



Outstanding balance of banks' private sector loans and gross stock market capitalization

= - 22.5733 + 6.991×(gross capital stock formation) + (error term)

(0.34) (6.68)

RMSE=803.85, R^2=90.08, N=110 , where t-values are in parentheses.

Source: Asia Bonds Online, https://asianbondsonline.adb.org/ (Accessed on May 19, 2015); IMF World Economic Outlook Database, http://www.imf.org/ (Accessed on May 19, 2015).

Separate analysis on SME sector investment has not been attempted due to data limitations, but existing literature generally predicts scarcer financial investment for SMEs than for large firms, which would result in a greater financing gap for SMEs than for large firms. Wignaraja and Jinjarak (2015) estimated the relationship between firm characteristics and SME finance. The main contents are shown in the box.

Box 1. Estimation on Relationship between Firm Characteristics and SME Finance

The following content is from "Why do SMEs not borrow more from banks? Evidence from the People's Republic of China and Southeast Asia."(ADBI Working Paper Series, 2015)

Using World Bank Enterprise Survey data, this study examines the relationship between firm characteristics and SME finance in a sample of firms from the PRC, Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam. Several aspects of financial access, including bank borrowing, line of credit availability; and collateral, credit, and lender type; are found to be correlated with firm characteristics. The main results suggest that SME status (having fewer than or equal to 100 employees) has a significant large and negative economic influence on bank borrowing and line of credit availability, while export participation, firm age, and financial audit have opposite and significantly positive effects on SME finance.

$$\frac{Bank\ \ Borrowing}{Working\ \ Capital} = \mathrm{f}\begin{pmatrix} Firm\ \ Age, Export\ \ Participation, Foreign\ \ Ownership, \\ Managerial\ \ Experience, Financial\ \ Audit, \\ Industry\ \ and\ \ Country\ \ Fixed\ \ effects \end{pmatrix}$$

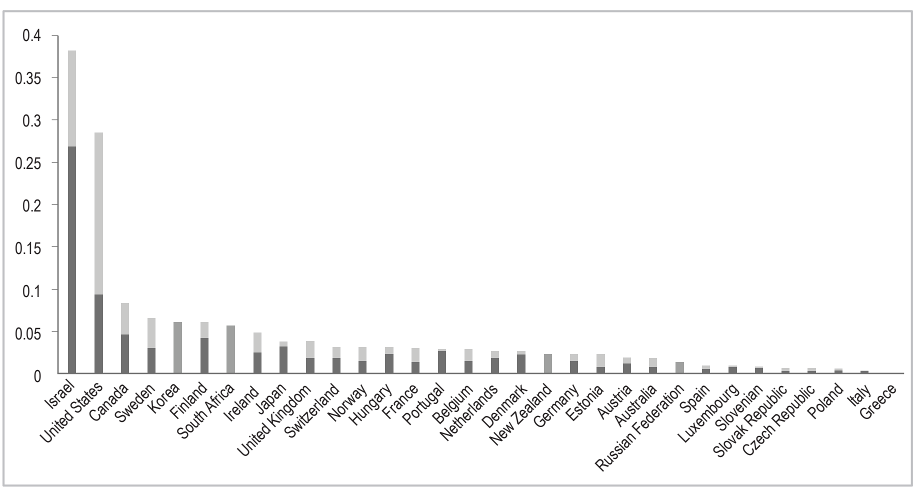
While the focus is on firms in the PRC and Southeast Asia, their main findings suggest both similarities and differences vis-à-vis previous studies on other economies and sample periods. In Germany, the evidence suggests that SMEs, known as "Mittelstand," become less reliant on bank borrowing and more on equity finance and future cash flows, while capital market instruments (i.e., Mittelstand bonds) remain available only to large firms (Böttcher 2013). SMEs in our sample countries remain dependent on internal funds, implying that financial access of SMEs in developing Asia is more challenging. This is largely due to a lower level of capital market development, underdeveloped SME financing institutions, and perhaps a greater problem of asymmetric information between SME lenders and borrowers. In the United Kingdom, SMEs also have difficulty in borrowing from banks, especially after the global financial crisis of 2008–2009, thereby influencing the Government of the United Kingdom to intervene with long-term guarantee and credit schemes for new loans, as well as to support commercially managed venture capital funds for providing equity finance (Bank for International Settlements (BIS), 2012).

Source: Wignaraja and Jinjarak (2015), p. 10, p. 19.

A more developed market for SMEs is venture capital which is a subset of private equity. Venture capital investment refers to equity investments made to support the pre-startup, start-up and early stage of a firm. In the most countries except for United States and Israel, venture capital investments make up a very small percentage of GDP, at less than 0.05%. Venture investment share of GDP in the United States and Israel is above 0.25% and accounted for more than 80% of OECD total in 2014 (See Figure 16). Venture capital investment in Australia, Japan, Korea and the United States (in APEC) is greater than the European total(See Table 5). This means that there are various instruments to be accessed in the SME financing market in APEC.

Figure 16. Venture Capital Investments (2014 or latest available year)

(Unit : % of GDP)



Source: OECD (2015b), *Entrepreneurship at a Glance 2015*, p. 103.

Table 5. Venture Capital Investments (2014 or latest available year)

(Unit: Million US dollars)

Australia	265.92
Korea	865.51
Japan (2013)	1,862.79
United States	49,532.43
Total Europe	4,793.95

Source: OECD (2015b), *Entrepreneurship at a Glance 2015*, p. 103.

These results correspond to the financial market competitiveness index for the countries concerned. <Table 6> presents the competitiveness index for financial market development surveyed by the World Economic Forum (WEF). Singapore, Malaysia, United States and Hong Kong recorded high scores over 4.0 and are competitive in the area of SME financing. Access to financing, on the other hand, is an indicator of the difficulties of doing business. Higher scores on this indicator means greater difficulty of accessing finance. It is easier to access financing in Singapore, Thailand, the Philippines, Japan, Australia and Peru than in Indonesia, Vietnam, Korea, China, New Zealand, Canada and Russia. This also can be closely related to the market structure of each country.

Table 6. APEC Competitiveness Index for Financial Market Development and Access to Financing

	Availability of financial services	Affordability of financial services	Financing through local equity market	Ease of access to loans	Venture capital availability	Soundness of banks	Regulation of securities exchanges	Legal rights index, 0–10 (best)*	Financial market development (Score 1-7)	Access to financing*
Singapore	6.1	5.9	5.1	4.5	4.3	6.6	6.0	10	5.8	5.0
Malaysia	5.6	5.6	5.1	4.8	4.6	5.7	5.5	10	5.6	9.7
Thailand	5.3	5.0	4.6	3.6	3.0	5.7	5.0	5	4.6	3.4
Indonesia	4.9	4.9	4.3	3.9	3.9	5.1	4.5	5	4.5	10.6
Philippines	5.0	4.8	4.4	3.5	3.3	5.5	4.6	4	4.4	1.6
Vietnam	3.9	3.6	3.9	2.6	2.7	3.5	3.3	8	3.8	15.9
Korea, Rep.	4.0	3.9	3.5	2.2	2.2	3.9	3.7	8	3.8	13.9
China	4.5	4.4	4.2	3.7	3.9	5.0	4.4	5	4.3	15.8
New Zealand	5.7	5.7	5.3	4.0	3.9	6.7	5.9	10	5.7	10.8

Table 6. Continued

United States	6.2	5.7	5.2	3.9	4.4	5.4	5.0	9	5.3	9.1
Australia	5.6	5.2	4.8	3.3	3.4	6.6	5.5	10	5.4	5.2
Canada	6.1	5.8	4.9	3.8	3.6	6.7	5.6	7	5.4	15.6
Taiwan, China	5.4	5.6	5.5	3.6	3.9	5.7	5.4	5	4.9	1.8
Hong Kong SAR	6.2	6.0	5.7	4.5	4.3	6.5	6.0	10	5.9	4.4
Mexico	4.3	3.7	3.4	2.4	2.5	5.6	4.8	6	4.1	9.8
Chile	5.5	4.9	4.4	3.7	3.3	6.3	5.3	6	4.9	6.5
Russian Federa-tion	4.4	4.1	3.1	3.0	2.7	4.0	3.7	3	3.5	11.7
Peru	4.7	4.1	3.5	3.2	2.9	5.8	4.8	7	4.5	2.7

Note: Access to financing show the result from "the most problematic factors for doing business". From 16 factors suggested, respondents were asked to select the five most problematic for doing business in their country. Thus there is no maximum value for this index.

Source: Schwab (2014), *Global Competitiveness Report 2014-15,* World Economic Forum.

4. Financial Integration and SME Financing

First of all, the review of the methods for SMEs' financing is as follows. As is mentioned earlier, in general, funding to businesses are categorized into "Bank Lending" and "Non-Bank Lending." In addition, funding may be classified as "Governmental support for financing" or "Market-based financing" depending on whether or not the government is involved. Market-based financing includes "Equity financing" and "debt financing."

Banks are an essential source of financing for SMEs. In fact, bank lending still makes up for the majority of SME finance in many countries. The global financial crisis had a negative effect on bank lending overall and so SME access to bank finance during the crisis was especially difficult – which is reason to expect the bank lending gap of SMEs to grow still further, amplifying their vulnerability relative to larger corporations. From the perspective of supply of funds, SME financing can be fostered either through public financial support or through market-based solutions as follows.

Financing Schemes 1: Public financial support (including Public Funds, Loan) managed by a central fund
2: Market-based financing

Public loans including public guarantee schemes can be proper SME financing policy when SMEs face the problem of market failure. Given that SMEs have generally limited access to finance due to information asymmetries and the riskiness of their businesses, public support by government such as credit guarantee schemes (CGS) are a very important tool for supporting SMEs. When market failure owing to their lack of collateral and short credit history have been identified, government intervention might be warranted.

Market-based financing is itself divided into debt-financing and equity financing. The obstacle SMEs face when taking out bank loans is the requirement for strong balance sheets and sufficient collateral, meaning that start-ups and young firms that tend to be higher-risk and have insufficient collateral or small ventures whose activities are innovative but riskier face a higher financing gap. However, this market-based financing is appropriate for a large capital market where it is easier to diversify risk; it may not work very well in less developed or smaller capital markets. In order to remedy this weakness, scheme 1 can be combined with market based financing.

Thus supporting the development of a broad range of non-bank financing for SMEs in debt and equity markets is needed. Star-up finance, mezzanine finance, and crowd-funding are some of the forms non-bank financing can take. Equity financing is especially well-suited for small, dynamic, innovative SMEs.

SMEs at early stages of development (or start-ups) have risk profiles that favor equity financing or financing through the capital market. For this to work, however, large-scale financing, which is not appropriate for small markets, is required. Therefore it will work best in a developed equity market such as that of the US, the structure and size of which have already been reviewed in Figure 15 and Figure 18. When the condition above does not hold, two alternatives are possible.

Option 1: Realize the large-scale funding in an inter-temporal way

This would mean, for example, investing in 5 firms per year for 100 years with the expectation that one of those 500 firms will succeed; this requires patience on the part of investors. In the US, it is possible to invest in 500 firms at once, with the expectation that one firm will succeed within a five-year horizon. It is difficult to do with private capital because this approach requires large funds. This gives rise to the need for a policy lending program (or government credit) resembling a typical European-style policy financing scheme.

Option 2: Try to expand financial market (Need financial cooperation)

For this to work, establishing universality of contracts through economic integration is needed. Universality of contracts means equal protection of property rights for incoming foreigners who enter into contracts in the host country. In this case, capital inflow is also needed from countries outside the integrated economic block.

As seen from the graph above, a wide range of financing schemes exist for different developmental stages of SMEs. Reducing the SME financing gap will allow for a greater chance of success when such diverse means are given consideration. Rather than go into the details of the specific financing schemes, this study will explore how financial cooperation in Asia might improve SME financing, and to that end will analyze the features of SME finance in the EU.

Second, financial cooperation should be used (especially in the case of ASEAN) to facilitate advancement of financial markets. To this end, a variety of financial infrastructure must be established; as mentioned above, examples could be business evaluation systems or credit guarantee measures necessary for expanding financial markets. This would provide encouragement for SME finance, meaning that financial cooperation ultimately serves to boost SME financing.

Thirdly, financial cooperation enables information sharing in the area of SME financing. The benefits this carries are considerable, since if member countries share information on any risk a certain company is faced with amid the recent stimulation of the SME chain on the back of intra-regional economic cooperation, the risk can be prevented from spreading further, and pre-emptive measures developed for SMEs that may come into play, conclusively forestalling risks of a larger scale.

III. SME Financing in EU

1. Characteristics of European SME Support Policy

In the 1980s, community-wide SME support policy was launched without enthusiasm for such policy in the EU and without even a shared definition of SMEs among countries. The EU's policy objectives were also too narrow and lacked focus for SMEs. From the 1990s the EU adopted concrete objectives including the streamlining of administrative and regulatory environment, improvement of the financial environment, and enhancing competitiveness through R&D. Although concrete policy tools remained largely unchanged, the policy objective shifted from job creation to innovation in 2000s. EU support in the form of debt financing still prevailed from 2007 to 2013, but post-2014, emphasis has been placed on market-based financing including equity financing. Also, as the severe market failure in the upshot of the financial crisis in 2008 reintroduced restrictions to SME financing, government intervention emerged in various forms for a limited period. National governments rolled out supportive measures, or in some cases state-run public corporations provided support. The government measures, rather than being direct forms of support, were public initiatives targeting debt or - albeit more restrictive than government guarantees - government investments in the form of public initiatives targeting equity into venture capital or private equity funds. Policy-wise, there is greater focus on private or market-based equity financing which is at the center of joint support policies at the EU level. <Table 7> and <Table 8> explain public programs for debt financing and equity financing in selected countries.

Table 7. Public Programs for Debt Financing in Selected Countries

UK	Germany	France	Spain	Italy
Funding for Lending Scheme	Start-up Loan	Prêt Participatif d'Amorçage	Companies and Entrepreneurs Facility/Liquidity Facility	Nuovo Plafond PMI Investimenti
National Loan Guarantee Scheme	Start-up Loan (Start Universal)	Contrat de Développement Innovation	ENISA Entrepreneur	Plafond PMI Crediti
Enterprise Finance Guarantee	Entrepreneur Loan	Contrat de Développement Participatif	ENISA Young Entrepreneur	Fondo Centrale di Garanzia
Business Finance Partnership	Entrepreneur Loan (Subordinated Capital)	Prêt Pour l'Innovation	ENISA Competitiveness	-
Start-up Loans	Innovation Programme I	Garantie Innovation	ENISA Technology-Based Companies	-
-	Innovation Programme II	Biotech Garantie	ENISA M&A	-
-	-	Garantie de Caution sur Projets Innovants	SME Guarantee Programme	-
-	-	Credit Mediation Schemes	-	-

Source: Re-Quotation of Infelsie (2014), "Supporting Access to Finance by SMEs: Mapping the initiatives in five EU countries" and Author's arrangement.

Table 8. Public Programs for Equity Financing in Selected Countries

UK	Germany	France	Spain	Italy
Enterprise Investment Scheme (EIS)	ERP Start-up Fund	Contrat de Développement Participatif (CDP)	ENISA MAB	Fondo Italiano d'Investimento
Seed Enterprise Investment Scheme (SEIS)	High-Tech Seed Fund	Fonds Stratégique d'Investissement (FSI)	FOND-ICOpyme	-
Venture Capital Trust Scheme (VCT)	ERP Participation Programme	Garantie des Fonds Propres	-	-
Business Angel Co-Investment Fund	-	-	-	-

Source: Infelsie (2014), "Supporting Access to Finance by SMEs: Mapping the initiatives in five EU countries" and Author's arrangement.

SMEs face greater difficulties accessing financing in the new member states than in Western Europe. More than 75% of SMEs in the EU-15 have sufficient financing. By contrast, less than 66% of SMEs in the new member states have sufficient financing. Banks are the financial institution most often used by SMEs. Traditional collateral requirements are often a barrier to finance for SMEs. SME lending is perceived as risky, with a high capital cost. The method of transferring risk from SME lender to capital market investors is "Securitization." It has recently been evaluated that "asset-backed instruments" related to this kind of risk transfer are useful financing avenues for SMEs.

EU's principles on supporting SMEs are as follows.

Principle 1: Improving access to finance

The EU guarantees bank loans taken out by SMEs in order to facilitate SME financing. This is managed by EIF (European Investment Fund), securing funds for CIP (Competitiveness and Innovation Programme). JEREMIE (Joint European Resources for Micro and Medium Enterprises) was established for support of SMEs in less developed regions. The European Commission seeks to get all member countries to improve SMEs' access to finance, which helps to reduce the cost for banks and SMEs of identifying each other and thereby lower the barriers faced by SMEs when obtaining loans.

Principle 2: Thinking big on funding

In order to improve the funding environment for SMEs, MAP and CIP were introduced. MAP (Multiannual Programme for Enterprise and Entrepreneurship) expired in 2006 and was replaced by CIP (Competitiveness and Innovation Programme). Funds were increased by over 60 percent under CIP compared to MAP.

2. SME Financing through Bank Loans and Capital Market

Detailed discussions on SME financing policies in the EU should be preceded by discussions on whether there is a need for EU-level intervention in SME financing.

The recent credit-tightening policies across European banks have made it extremely difficult for SMEs to secure external financing. In fact, the problem does not end at financing, as it can actually heighten the possibility of bankruptcy, which would become a large obstacle to economic recovery considering that SMEs account for a massive share of the economy. The solution to the above problems would be to alleviate SMEs' capital deficiencies and cutting financing expenses through public policy support, including guarantee schemes or policies investing in venture capital.

Diverse financing alternatives have been suggested as of late, but SMEs still rely heavily on bank loans. Uncapped portfolio guarantees for public policy support or SME securitization can help enhance banks' lending capabilities. The availability of bank loans are strongly affected by macroeconomic conditions, but have recently been impacted greatly by BIS Ⅲ risk-based capital regulations. Government policies can play a key role in moderating problems related to such matters and help out banks in terms of improving lending capability.

Securitization can help banks offer new loans, while SMEs can benefit from more relaxed financing limitations. Most importantly, SME securitization is not a matter that can be dealt easily by individual banks or nations in current market conditions. Transnational intervention across the region would not only expand the liquidity available for securitization and disperse risk, but it will also make it much more advantageous for banks to access ECB liquidity than to sell securitization instruments to individual investors[10]. Of course, the US crisis is an inevitable topic when discussing securitization.

The EC (European Commission 2013) compares the differences between SME loans and mortgages as seen below, and highlights the principles that must be abided by to avoid a scenario resembling the US-led financial crisis.

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[10] Kraemer-Eis, Passaris, and Tappi (2013), p. 29.

Box 2. Difference between SME Loans and Mortgages

SME loans are, in principle, less homogenous than residential mortgages (with regard to size, legal forms, collateral etc.) and the underwriting criteria are less standardized. On the other hand SME loans are typically thoroughly analyzed by credit experts and systems (e.g. most banks apply detailed (quantitative) internal rating methodologies on top of more qualitative assessments). Moreover, banks normally have a relationship banking approach and know their customers very well, thus enabling them to manage the risk of the customer over the long term in contrast to the more automated lending decisions seen in the mortgage and credit card markets. This distinguishes SME Securitization from those other securitized asset classes.

As a result, and as "lessons learnt", some key features of successful SMESecs can be summarized:

- Granular, diversified portfolios (i.e. with regard to single obligor exposure, sectors, regional distribution);
- Transparent and standardized structures (and no multiple securitizations like Collateralized Debt Obligation (CDO) of CDOs/CDO of Asset Backed Securities (ABS));
- Proper and transparent incentive structures in order to avoid moral hazard (e.g. some risk retention by the originator)
- Loans originated in line with relationship banking;
- Investors/guarantors should perform their own analysis/due diligence and should not be limited to being "external rating driven".

Properly applied, SMESec can enhance access to finance for SMEs and it is a replicable tool for SME support that provides a multiplier effect.

Source: European Commission (2013), pp. 49-50.

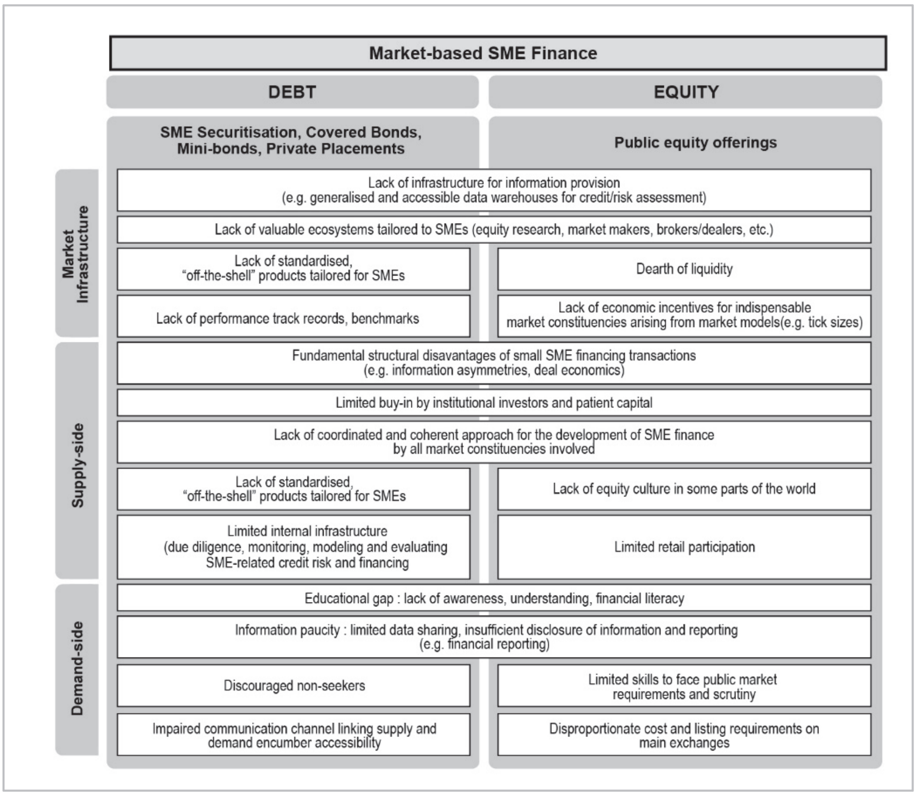
Next, opportunities and constraints for market-based financing for SMEs in EU need to be reviewed. SME securitization allows banks to relocate credit risk to the market while achieving capital relief. As a result, capital can potentially generate additional capacity for lending to SMEs. Investors can diversify their investment portfolios and get exposure to the SME asset class. Securitization provides an efficient way to alleviate credit constraints and improve the diversity of credit supply to SMEs.

Covered bonds have the potential to enable the channeling of funds to the real economy in a simple fashion. Nevertheless, given that covered bonds remain on the issuing bank's balance sheet and do not afford the feasibility of risk transfer by securitization, they involve asset encumbrance considerations which can restrict their use in deleveraging environments.

Public equity markets provide appropriate financing for later-stage, high-growth, innovative SMEs, where unpredictable cash flows and lack of track record renders bank lending unsuitable, if at all possible. There are benefits of public equity offerings for SMEs that extend beyond initial access to capital (IPO), to longer-term repeat access to financing, as well as to benefits related to increased credit-worthiness, transparency and visibility by association with a dedicated ecosystem.

The constraints in capital market financing for SMEs are shown in Figure 17. Lack of infrastructure for information sharing, the absence of internal infrastructure required for the assessment of SME-related risk by institutional investors, the absence of standardization, the lack of SME-specialized ecosystems which act as catalysts for the provision of liquidity in secondary equity markets; insufficient economic incentives for participants, and educational gap about equity or bond market present obstacles for SME financing.

Figure 17. Constraints of Market-based SME Finance in EU



Source: OECD secretariat (2015), "Opportunities and Constraints of Market-based Financing for SMEs," Internal document [DAF/CMF(2015)13].

Bank loans are one of the most major sources of SMEs' financing. The most important benefit bank loan has over equity financing is that neither involves abandoning ownership of the business. SME financing tools through bank loans and non-bank channels are summarized in Table 9.

Table 9. Summary for SME Financing through Bank Loans and Non-bank Channels

scheme	Type of intervention	Aim
National Loan Guarantee Scheme	Government guarantees for unsecured borrowing by banks	Cheaper business finance by reducing the cost of bank loans under the scheme by up to 1 percentage point.
Enterprise Finance Guarantee	Loan guarantee to SMEs	Facilitate additional lending to viable SMEs lacking the security or proven track record for a commercial loan.
Business Finance Partnership	Increase supply of capital through non-bank channels	First tranche of BFP funds will lend to mid-sized businesses, helping to diversify the channels of finance available to them
Business Finance Partnership: Small Business Tranche	Increase supply of capital through non-bank channels for small businesses.	Increase non-traditional finance such as peer-to-peer platforms, supply chain finance and mezzanine finance for businesses with a turnover below £75m.
Start-up Loans	Loans to young people (18-30) to start a small company	Open up finance to those who would not normally be able to access traditional forms of finance for a lack of track record or assets.

Source: Department for Business Innovation & Skills of UK(2013), "SME Access to Finance Schemes: Measures to support SME growth," p. 11.

Equity financing raises external investment capital and the main provider of this financing scheme for SMEs is venture capital. The main contents are explained in the summary for Table 10.

Table 10. Equity Financing for SMEs in EU

Scheme	Type of intervention	Aim
Seed Enterprise Investment Scheme	Range of tax reliefs	Help small, early-stage companies to raise equity finance by encouraging individual investors to purchase new shares in qualifying companies.
Enterprise Investment Scheme	Range of tax reliefs	Help small higher risk companies to raise equity finance by individual investors to purchase new shares in qualifying companies.
Venture Capital Trust Scheme	Range of tax reliefs	Help small higher risk companies raise equity finance indirectly through the acquisition of shares in a VCT.
Business Angel Co-Investment Fund	Co-investment fund	Support business angel investments into high growth potential, early-stage SMEs.
Enterprise Capital Fund Programme	Public-private venture capital funds	Address a market weakness in the provision of equity finance to SMEs by using Government funding alongside private sector investment to provide equity finance to early stage companies.
UK Innovation Investment Fund	Venture capital fund of funds	Invest in technology based businesses in strategically important sectors of the UK including digital technologies, life sciences, clean technology and advanced manufacturing.

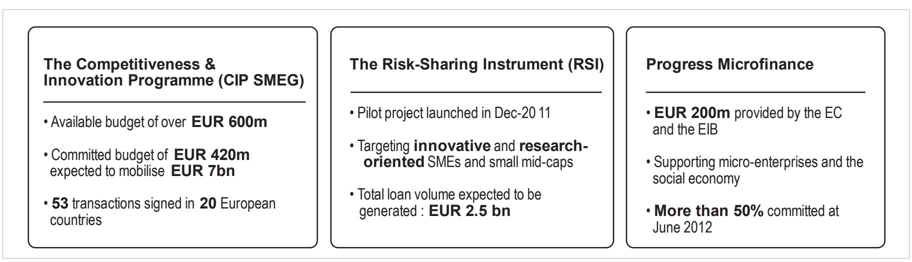
Source: Department for Business Innovation & Skills of UK(2013), "SME Access to Finance Schemes: Measures to support SME growth," p. 11.

3. EIF for SME Financing Support

Here, we shall look at EIB (European Investment Bank)'s SME financing program, among the many SME financing schemes that exist in the EU. The European Investment Fund is responsible for allocating SME capital to stimulate the SME sector, on behalf of the EC which determines EU's SME funding policy. EIF was founded and started providing venture capital to European businesses in 1997, and was majority-owned by the EIB (European Investment Bank). EIF is 62% owned by EIB, 30% by EC, and 8% by 24 public and private financial institutions.

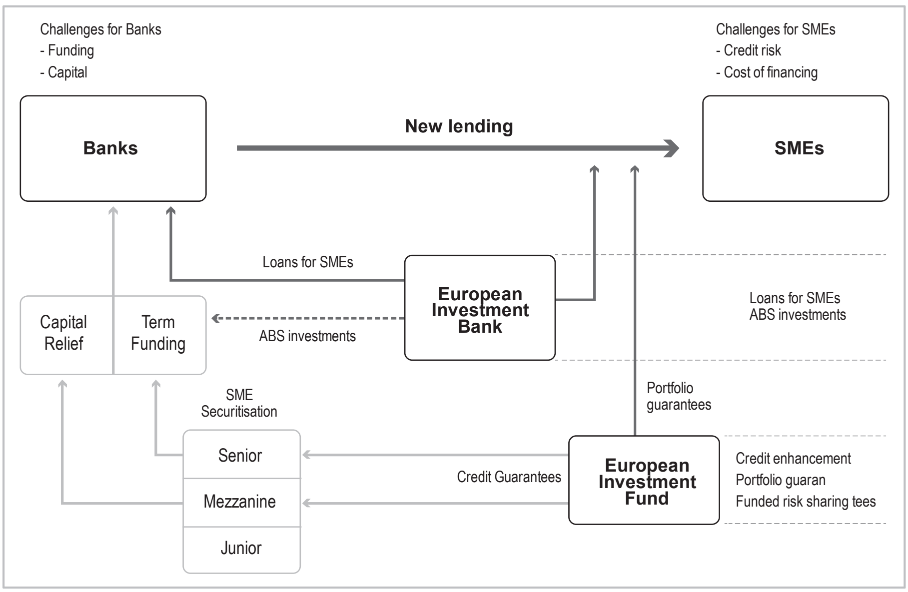
EIF runs the Competitiveness & Innovation Programme (CIP SMEG), the Risk-Sharing Instrument (RSI) for innovative and research-oriented SMEs and small mid-caps, and Progress Microfinance to support micro-enterprises and the social economy (see Figure 18). Figure 19 shows the structure of EIB for supporting SME Financing.

Figure 18. EIF's Role and Programmes for SMEs



Source: EIF, "Introducing the European Investment Fund," Presentation file, http://www.eif.org/news_centre/publications/index.htm (Accessed on September 17, 2015).

Figure 19. EIB Structure for Supporting SME Financing



Source: EIF, "EIB Group's support to SME Debt finance," Homepage, http://www.eif.org/what_we_do/guarantees/single_eu_debt_instrument/cosme-loan-facility-growth/index.htm (Accessed on September 17, 2015).

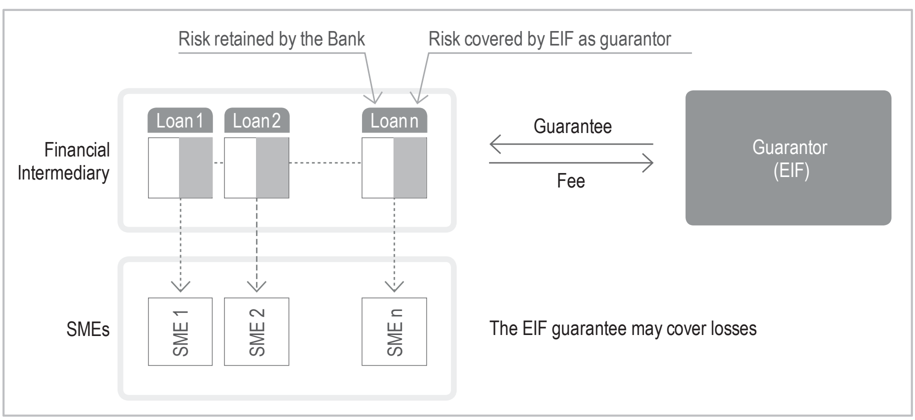
1) Guarantee loan

EIF operates two types of guarantee programs, credit guarantee and portfolio guarantee, aimed at mitigating SMEs' funding troubles due to high risk and insufficient collateral. Intermediaries operate the programs in participating countries and make selections among programs including mutual guarantee. Also, intermediaries must submit detailed and periodic reports on its operation of guarantee programs to EIF in approved electronic form. Intermediaries are supposed to allow European Commission staff and European Court auditors access to appropriate information so that they may monitor, control, and audit the use of funds.

First, EIF provides a positive and absolute guarantee on a loan portfolio. The structure of EIF guarantee is shown in Figure 20. Risk retained by the bank is covered by EIF and also may cover losses.

Second, EIF provides credit guarantee, with well-timed payment of interest and payment of principal. Notes guaranteed by EIF have 0% RWA(risk-weighted asset) under CRD(capital requirements directive)[11] and Solvency II[12] (regulation) (See Figure 21).

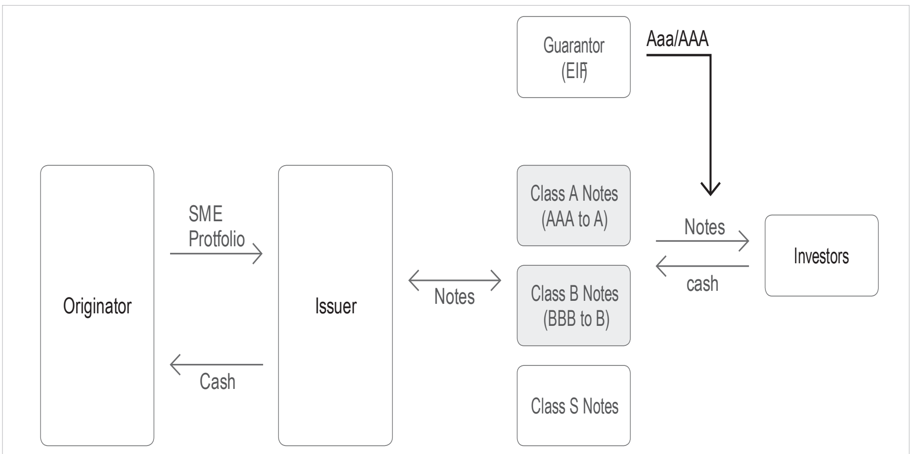
Figure 20. EIF Guarantee on a Loan Portfolio



Source: EIF, "EIB Group's support to SME Debt finance," Homepage, http://www.eif.org/what_we_do/guarantees/single_eu_debt_instrument/cosme-loan-facility-growth/index.htm (Accessed on September 17, 2015).

11 The European Union adoption of Basel II.
12 Risk management system for Eurozone countries.

Figure 21. EIF's Credit Guarantees



Source: EIF, "EIB Group's support to SME Debt finance," Homepage, http://www.eif.org/what_we_do/guarantees/single_eu_debt_instrument/cosme-loan-facility-growth/index.htm (Accessed on September 17, 2015).

Box 3. Major EIF Programs and Financial Instruments

A. CIP SMUG

CIP financial instruments are SMEG and GIF, which are managed by EIF on behalf of the EC. The purposes of CIP are as follows: enhance the competitiveness of European enterprises, support innovation and entrepreneurship activities, provide better access to finance, and promote the increased use of renewable energies and energy efficiency).

Two financial instruments for CIP are guarantees (SME guarantee facility, SMEG) and Venture capital (High growth and innovative SME facility, GIF). SMEG consists of the following four different windows, to meet four specific needs in enhancing access to finance for SMEs

Box 3. Figure 1. EIF SMEG Windows

Loan Guarantee Window	Micro-credit Window	Quasi-equity Window	Securitization Window
Focuses on SMEs without a sectorial approach Financial Intermediaries receive a capped(counter-) guaran-tee with a guarantee rate of up to 50% for a portfolio of new SME loans of a volume within a cer-tain range The(counter-) guarantee is provided free of charge	Focuses on micro- enterprises Financial Intermediaries rece-ive a capped(counter-) guaran-tee with a guarantee rate of up to 75% for a portfolio of new micro-loans (<EUR 25,000) The(counter-) guarantee is provided free of charge	Focuses on SMEs in seed/start-up phase, with less than 10 years of life Financial Intermediaries rece-ive a guarantee on a portfolio of mezzanine Financing* The Maximum investment amo-unt is fixed at EUR 500,000	Focuses on SMEs without a sectorial approach Financial Intermediaries rece-ive a guarantee in respect of loss-es in certain trenches of a sec-uritized port-folio upon an undertaking to build an addi-tional portfolio of SME loans us -ing a significant por-tion of the re-sources freed thanks to the guarantee

Source: EIF Homepage, http://www.eif.org (Accessed on September 29, 2015).

Committed budget and guarantee volume is EUR 587.6 (million) and EUR 6,699.5(mil-lion) and thus leverage was 30.8 in 2014. SMEs more than 350,000 were supported by SMEG.

Box 3. Table 1. Beneficiaries from SMEG Implementation

Indicators	Loan Window	Micro & Quasi Equity Window	TOTAL
SMEs supported	216,397	139,704	356,101
Loan volume supported	EUR 15,273m	EUR 2,801m	EUR 18,074m
Average loan amount	EUR 71k	EUR 20k	EUR 15k
Number of employees(at loan date)	949,424	305,825	1,255,249
Average number of employees	4.4	2.2	3.5

Source: EIF Homepage, http://www.eif.org (Accessed on September 17, 2015).

Box 3. Continued

B. COSME LGF

The COSME is Programme for improving the Competitiveness of Enterprises in general, and Small and Medium-sized Enterprises in particular. COSME Loan Guarantee Facility (LGF) is a window of the Single EU Debt Financial Instrument which supports European enterprises' growth and research and innovation (R&I). COSME LGF is successor of the CIP SME Guarantee Facility as part of the Europe 2020 strategy and EC facility for enhancing access to finance for European SMEs. It was launched in August 2014 with an estimated budget of EUR 660m (2014 - 2020). COSME LGF provides, free of charge, capped portfolio guarantees and counter-guarantees for additional SME risk-taking and a securitization option on mezzanine tranches of SME debt portfolios subject to additional lending to SMEs. COSME LGF is implemented through Financial Intermediaries like guarantee schemes, banks and leasing companies and aims at enhanced access to finance for SMEs through Higher Credit Risk Transactions.

C. FP6 program

This program supports reduction of intra-regional technology gap (NoE)(Provisions for implementing Networks of Excellence) and provides assistance for support programs implemented under FP6 (Sixth Framework Programme), an initiative to support EU firms on the basis of their technologies. This also supports activities to narrow intra-regional scientific and technological gaps.

The FP6 program has two risk sharing instruments. Main objective of RSI (Pilot Instrument under FP7 Risk-Sharing Finance Facility (RSFF)) was created to improve access to finance for R&D investment in EU; established in 2012 to meet funding needs of innovative projects; along with RSFF (Risk-Sharing Finance Facility), established in 2007.

D. Horizon 2020

Horizon 2020 was intended for operation from 2014 to 2020 as a program to support firms that focused on research and innovation. This program provides support in the form of equity investment or loans via the financial market to promote access to risk capital.

Equity investments follow the GIF form under the CIP, providing risk capital at early stage of business. In order to enhance bank-SME relationships, the EU seeks to reinforce the overall institutional structure by setting up information systems and reliable databases that accurately capture firm data, as well as utilize the existing legal framework more effectively.

Source: EIF Homepage, http://www.eif.org/ (Accessed on September 17, 2015), Author's arrangement.

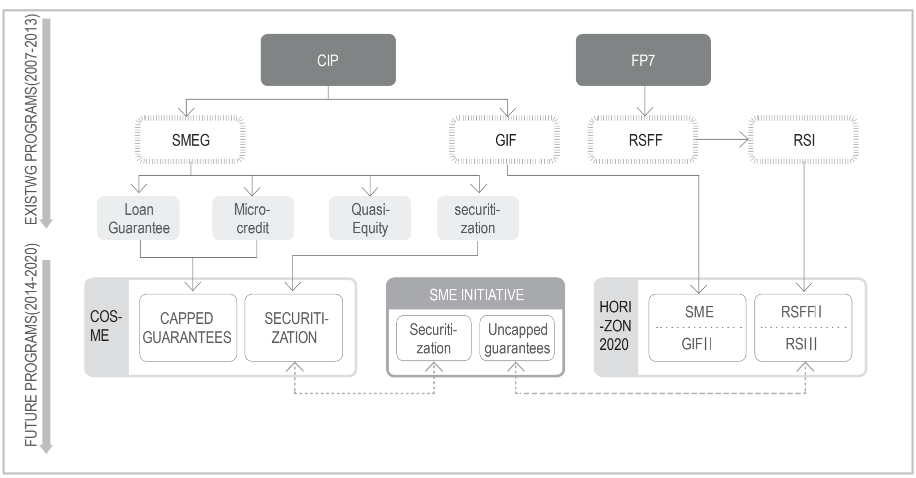
Table 11 summarizes the support program explained above according to the level of risk sharing and guarantee limits. The EU's SME initiative is co-funded by EU through COSMO and Horizon 2020 resources program, alongside the ESIF (European Structural and Investment Funds) which is financed by contributions by the member states.

Table 11. Structure of SME Financing Support in the EU

	COSMO	HORIZON 2020	ESIF
Risk-Sharing	X	X	○
Capped Guarantee	○	X	○
Uncapped Guarantee	△	○	X
Securitization	○	○	X

Source: EIF Homepage, http://www.eif.org/ (Accessed on September 17, 2015), Author's arrangement.

Figure 22. Financial Instruments Managed by EC for EU's SME Financing



Source: EC (2013), "Ex-ante assessment of the EU SME Initiative," p. 85, http://www.dgfc.sgpg.meh.es/sitios/dgfc/es-ES/ipr/fcp1420/p/Prog_Op_Plurirregionales/Documents/Eval_ex_ante_SME_initiative.pdf (Accessed on September 15, 2015).

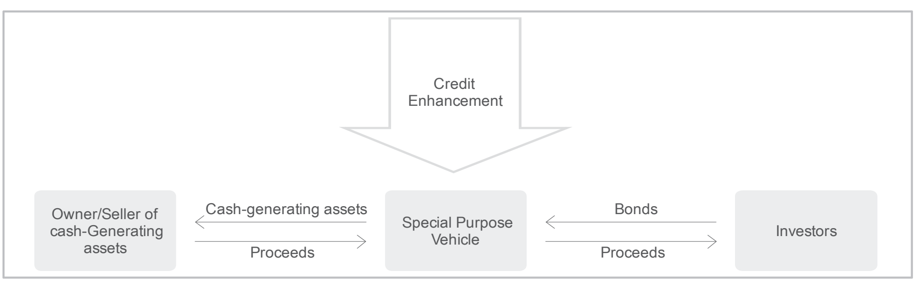
2) Securitization

SME lending is considered as risky and then Securitization is scheme involving transfer of risk from SME lender to investors.

The originator for this transaction are owners/sellers of cash-generating assets. SPV(special purpose vehicle) is an independent legal entity that operates the assets until maturity. Here, credit enhancer is an process that strengthen the credit worthiness of the underlying assets. Investors purchase bonds which are issued by the SPV (see Figure 23).

Main characteristics of securitization are as follows. It is risk transfer, which means transfer of risk through sales of debt instruments (ABS). Second is leveraging and. This allows investors to invest in risky assets. Third, securitization assets generally grouped into portfolio with well-defined criteria enabling distinct identification. Fourth, securitization has credit enhancement mechanisms that is guaranteed from the third parties.

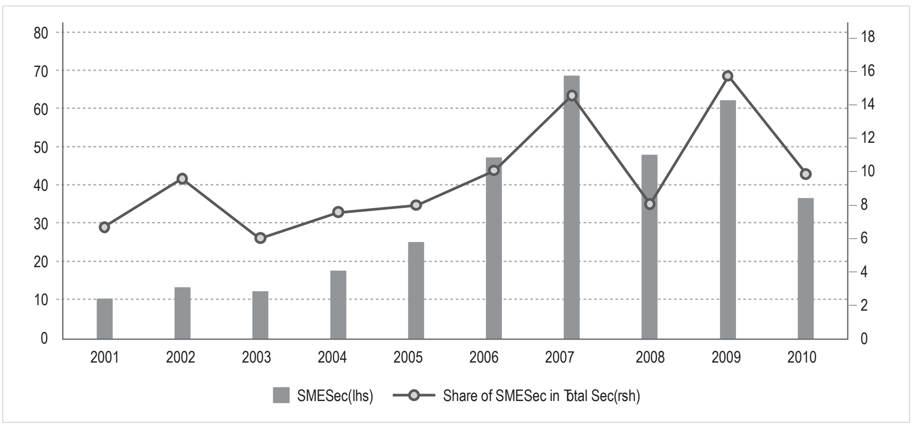
Figure 23. Asset Securitization Transaction



The market share of SME Securitization was consistently between 6% and 16% of total yearly issuance during the decade before 2012. In 2012, it further increased to almost 19%, the highest value ever registered in Europe, but this was actually due to the base effect, as the overall activity went down.[13] (see Figure 24)

[13] Kraemer-Eis, Passaris, and Tappi (2013), p. 29.

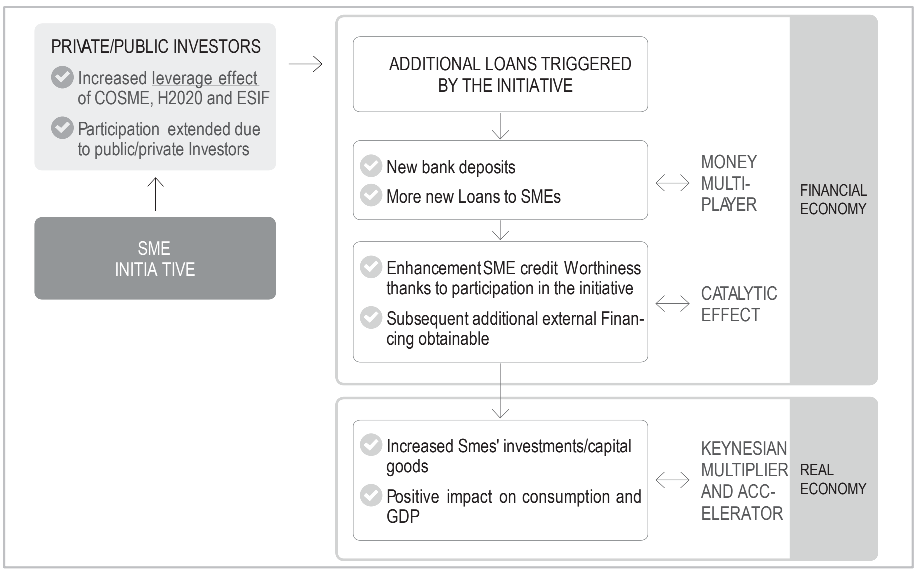
Figure 24. SMEs Volumes in Europe and Share of SMEs in Total Securitization



Source: Kraemer-Eis, Lang, and Gvetadze (2013), "European Small Business Finance Outlook," p. 45.

EIB aims to implement the EU's SME Initiative through its SME support programs, and thereby to make a positive impact on the financial economy and the real economy through money multiplier effect and catalytic effect (see Figure 25). The institution has at its disposal instruments that fit the growth stages of SMEs, which are outlined in the EIF Tool Kit for SMEs (see Figure 26).

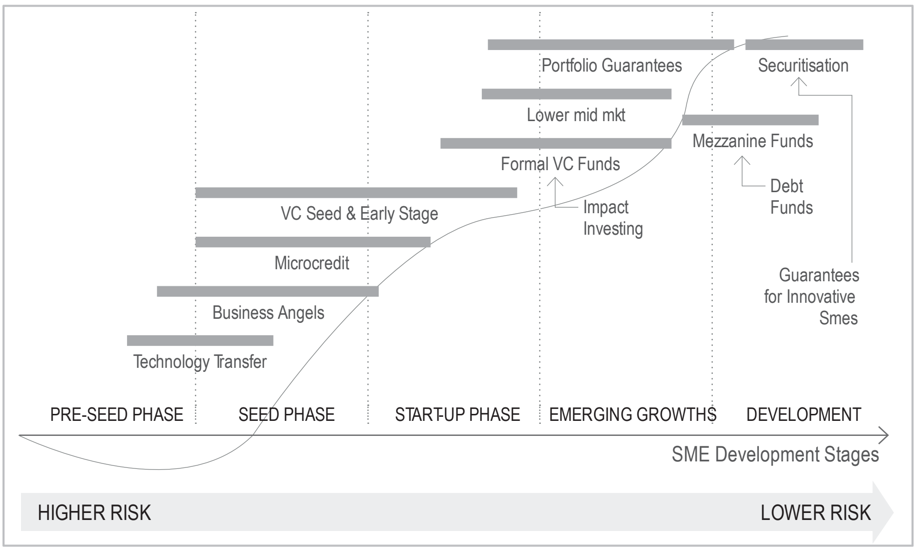
Figure 25. Economic Impact of SME Finance Sought by EIF



Source: European Commission (2013), p. 58.

The EIF is a fund that supports SMEs in the EU through risk capital procurement, and has helped out 175,000 SMEs in 2014 alone through a wide range of financial products. Figure 26 displays financial instruments corresponding to the development stages of SMEs. Since SMEs in their early stages bear high risk, the most appropriate instrument would be financing through capital markets that can share the risk. For venture capitals in particular, financing through seed and early stage funds is suggested; also, portfolio guarantees and formal venture capital funds are provided for SMEs that have actually entered their start-up phase. Securitization is a guarantee support scheme for innovative SMEs which are in development stages with comparably low risk.

Figure 26. EIF Tool Kit for SMEs



Source: Kraemer-Eis (2015), p. 6.

4. Lessons from the EU

SMEs are structured to facilitate strong job creation and are flexible with respect to changes in economic conditions, and are thus considered drivers of sustainable economic growth. On the other hand, however, SMEs find reaching economies of scale to be a challenge, and are prone to information asymmetries in the financial market; this leads to constant calls for SME financing policies. Those centered on public support or guarantees, involving direct government intervention, are especially very prominent in countries with less-developed financial markets or those lagging behind in overall development.

SME financing is typically divided into the following channels: loan programs, investment, or guarantees. Financing through bank loans presents particularly challenging obstacles for SMEs in their start-up phases, and is unlikely to lead to any results without the credit guarantee support of the government. It has become even more difficult for SMEs to seek financing through banks as regulations on banks' risk-bearing capital have tightened since the 2008 global financial crisis. Moreover, the crisis has led to a wider awareness of national financial crises, especially in Europe, making it even harder to roll out policies directed at SME financing support. From a bank perspective, the solution to sustaining SME financing would be either to eliminate or alleviate risk tied with SME finance, or encourage financing through capital markets to take the place of public financing. Most importantly, the private sector must intervene in order for government-led SME financing policies to be effective and efficient. Loans facilitated through direct government intervention would not only place a large burden on taxpayers, but could even undermine the viability and competitiveness of SMEs. There is also a necessity for these government policies to be aligned and unified across nations so as to curtail excess bureaucracy and competitive distortions.

Recently the EU has set forth a diverse range of financing methods based on capital markets, as well as public guarantee policies, and has been focusing more on market-based SME financing policies. This paper therefore aims to draw lessons for APEC SME financing by examining the most recent SME financing policies in Europe.

The experience of the EU points to the need for non-bank financing programme to add to bank financing for SMEs. The capital market is useful for high-end SMEs and also helps to support the venture capital industry. Thus EIF is also shifting its focus, from providing early-stage guarantees to developing various capital market-based instruments for SMEs. As mentioned above, there are various ways to provide financial support to SMEs according to their size and stage of development.

In the early stage of financial cooperation, EIF-style guarantees may be suitable for financing of SMEs in APEC. However, capital market-based financing seems indispensable as a tool for stimulating start-ups and innovative firms. In most middle income group among Asian countries, the SME equity market has less developed, but SMEs are seeking alternative sources of funding other than banks. Above all, equity market for these countries is developing at a faster rate than the banking sector.

ASEAN countries have been engaging the Republic of Korea, the People's Republic of China, and Japan under ASEAN+3 and cooperating within the APEC membership to boost capital market development, turning regional savings into regional investments. ADBI (2012) explains that "It also supports long term financing through initiatives such as the Asian Bond Fund (ABF), the Asian Bond Markets Initiative (ABMI), and the Credit Guarantee Investment Facility (CGIF)."[14]

To address challenges in integrating the ASEAN capital market and to meet the diverse needs and interests of capital market stakeholders, the ASEAN Capital Market Forum (ACMF) assigned a group of experts to provide guidance for the development of an implementation plan[15]. The ASEAN secretariat responsible for coordinating with financial regulators on assessing and implementing financial

[14] ADBI (2012), p. 10.
[15] SEADI (2013), p. 3.

liberalization initiatives and tax system reform was also involved in developing the plan[16]. ASEAN capital market implementation plan present six strategic components (See Table 12). Furthermore, among ASEAN+3 countries, the ASEAN-5 members (Singapore, Malaysia, Indonesia, the Philippines, and Thailand) introduced reforms to further develop and deepen capital markets following the Asian financial crisis of 1997.

Looking at the APEC financial market conditions and characteristics in the previous chapter, most financial markets have become bigger relative to 10 years ago; in particular, the shares of financial markets and bond market is growing at a faster rate than the bank sector. This tendency around ASEAN countries is a very significant one. Strengthening regulations for banks after the global financial crisis will allow more opportunities for SME financing in the capital market. If these trends continue for the time being, use of capital markets for SME financing is the inevitable choice. In the context of these financial markets, SME financing is very limited. Various alternatives outside the banking sector in order to gain access to SME financing seems to have been developed. The balanced-development of the banking sector and capital market would seem to be a very important policy for overcoming the financial constraints to SME financing.

EU's policy for SME financing involves taking full advantage of the capital market based on government guarantees. In case of APEC, it is also necessary to use such a mixed policy around Asian countries.

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[16] SEADI (2013), p. 3.

Table 12. Strategic Components of ACMF Implementation Plan for Integrating Capital Markets

STRATEGIC COMPONENT 1 Development of a mutual recognition framework to facilitate : • Cross border fundraising • Product distribution • Cross border investment within ASEAN • Market access by intermediaries	STRATEGIC COMPONENT 4 • Strengthen bond markets • Accelerate reform in bond issuance, listing and distribution • Design a regional strategy for rating comparability • Improve market liquidity, clearing and settlement of linkages
STRATEGIC COMPONENT 2 ASEAN exchange alliance and governance framework: • Build trading alliance and governance framework • Enhance governance, trading efficiency, and cost reduction • Clearing, depository and settlement linkages • Marketing and investor education	STRATEGIC COMPONENT 5 • Align domestic CMPD to support regional integration • Align national development initiatives to support cross border integration • Adopt phased approach to liberalization to ensure domestic market readiness
STRATEGIC COMPONENT 3 • Promote new products and build ASEAN as an asset class • Promote private sector-led regional sector development • Promote ASEAN star companies under the ASEAN board	STARTEGIC COMPONENT 6 • Reinforce ASEAN working process • Establish ASEAN coordinating team, composed of dedicated resources from ASEC and dedicated point persons from ACMF member to monitor, coordinate, report on, and raise issues on the implementation plan.

Source: SEADI (2013), "Impact of ASEAN Capital Market Integration on Indonesia's Capital Market and Economy," p. 4., http://pdf.usaid.gov/pdf_docs/PBAAA120.pdf (Accessed on September 7, 2015).

IV. Policy Suggestions and Conclusion

1. The Necessity of Financial Support Policies for SMEs at the APEC level

While SMEs are considered a leading driver of national economic growth, SMEs, especially in their early stages of development, face significant difficulties in external financing due to deficiencies in collateral and information asymmetries. Faced with an economic recession, the situation becomes more critical as fund strains lead to increased possibility of bankruptcy. If bankruptcy spreads among SMEs with technology and growth potential but are small in size and young in age, the situation is most likely to lead to a vicious cycle of slow recovery. This is why the government should intervene, to help SMEs that have failed to secure financing and face financing limitations. For SMEs in countries with underdeveloped financial markets or have capital markets that are less-developed compared to banking sectors, the limitations become larger, and financing failures become even more likely.

The challenges SMEs face in the APEC region when seeking bank loans are - aside from a few countries with advanced capital markets like the US - a structural issue. In high-income countries SMEs have access to more financing support through bank loans, while in low-income countries there it is necessary to reinforce support policies for SME financing. This is especially true for financial infrastructure, such as credit-rating agencies, credit guarantees, etc. which must be further developed in low-income countries.

A variety of policies should also be implemented to boost capital market-based financing, so as to reduce the level of dependency on financing through banks. The reason for this is that banks in countries that have agreed to adopt BISⅢ are expected to become even more unwilling to give out SME loans, which means SMEs will find it harder to seek financing.

A wider range of SME financing channels would lower financing costs, and lessen the challenges in securing financing of a large scale; thus, the necessity for diversification in the SME financing market. Countries have developed and are supporting various stock exchange markets to enable SME-specific financing through equity financing in capital markets. Korea is not an exception, as seen in the establishment of KONEX - an entity independent from KOSDAQ - as a capital market reserved for SMEs. The equivalent of KONEX in Malaysia is the ACE Market, and MAI (Market for Alternative Investment) in Thailand.

APEC members are also implementing different national policies to support SME financing, for instance by increasing SME financing opportunities through the development of the corporate bond market or expanding investment scope and choice of instruments for investors. Meanwhile, some countries, especially those that are underdeveloped, face limitations in fostering SMEs at the national level. Since government intervention policies for SME financing support developed amidst exclusion of these countries would contradict the principle of financial cooperation, which seeks balanced growth in APEC and ASEAN and strives to narrow the gap between countries, intra-regional discussion is called for as a solution for this matter. Nonbank financing is a decidedly important channel for SMEs, but the problem is that nonbank financial institutions are much more susceptible to external economic conditions.

When banks were performing poorly during the global financial crisis, there was a great surge in SME financing centered on microfinance among Asia's less-developed countries. The normalization of the bank sector has turned the tables again, with microfinance experiencing a contraction in size. Nonbank financing tends to be left out of the general SME financing policy framework led by governments, and thus have less access to sustained policy support; this, likewise, calls for a solution.

The task ahead is to design a balanced SME policy framework that incorporates diverse financial market models. SME financing should be modeled in various formats, so that the government takes responsibility for SME financing and SMEs do not miss out on suitable opportunities. The economic growth in Asia as of late has highlighted the necessity for access to long-run growth capital, and thus the need to establish a foothold for growth-oriented SMEs. Encouraging market-based financing for SMEs in Asia is expected to become a highly challenging issue.

Of particular note, financial cooperation within ASEAN is leading the banking sector to seek financial advancement, including through financial infrastructure expansion, and the increased flow of foreign capital into the region is swelling the size of capital funds. Such financial cooperation will serve as motive for designing financial models, and building diverse infrastructure in the course of financial market advancement, thus helping to establish a sound framework for SME financing. Working on this at the national level, however, would incur redundancies in cost, and face limitations in generating and sustaining the expansion of economies of scale in capital. This is why the SME financing support policies undertaken on the EU level holds significant implications.

The limitations faced by SMEs when financing is facilitated through debt financing or equity financing in individual countries are as follows.(see Table 13).

Table 13. Limitations in Debt Financing and Equity Financing for SMEs in Developing Countries

Debt Financing	Equity Financing
- Banks unable to provide capital to SMEs appropriately, widening the financing gap - High earnings from wholesale or retail banking in developing countries, which makes it unnecessary to take on risks of the SME market - SMEs needing long-term debt in particular may heighten the possibility of banks being exposed to mismatch in the maturities - Banking sector tends to have high interest rates, which means SME financing conditions are hardly favorable - Information asymmetries are very likely to lead to financing failures	- Capital markets lag behind in development in the case of developing countries - The private equity and venture capital markets are in their very early stages and extremely small - As with debt financing, information asymmetries, lack of reliable information, inadequate infrastructure such as credit-rating systems are highly likely to lead to market failure - Even among SMEs, capital tends to be directed toward those with higher transparency in terms of above-mentioned information; capital access is extremely hard for those that are less transparent

Based on the aforementioned limitations of and countermeasures for SME financing, the role of financial cooperation in SME financing can be described as follows.

The strongest argument supporting financial cooperation in SME financing is the necessity of the "Law of Large Numbers" principle for SME equity financing to succeed, since SMEs need financial tools that can take on SME risk and this goes hand in hand with capital market development. APEC is lucky enough to have the US market, which has highly advanced venture capital and private equity markets. As the ASEAN market currently records the highest economic growth rates in the world and has potential for sustainable growth in the future, it is hard to ignore its investment value, and the US will find the proposal of sharing knowledge on and helping establish SME financing infrastructure to be quite attractive. The law of large numbers principle can only work with a large inflow of capital, and prospects are positive in this regard since APEC is home to the US and Canada, which boast advanced capital markets. Secondly, financial infrastructure is a must to facilitate equity financing through the development of capital markets, and this calls for financial cooperation. An advisable option would be for the US, Japan, and Korea which are considerably ahead in financial infrastructure establishment to cooperate in infrastructure establishment; but instead of with individual countries, to help ASEAN expedite its ongoing process of financial infrastructure advancement and bringing along countries that lag behind in development. Thirdly, markets must have economies of scale for the transaction of SME financial instruments, but apart from a few countries including the US, it is extremely hard for APEC members to sustain capital markets of a certain size. Thus, financial cooperation should be utilized to expand the size of financial markets and to advance financial infrastructure, so as to encourage market trade.

The following are a number of issues to be discussed in advance of proposing SME financing policies based on financial cooperation in APEC.

2. Issues to be Discussed

1) The cost of equity financing for start-ups or innovative SMEs is extremely high. Does financial cooperation reduce this "cost of equity-financing?"

Preliminary analysis (Binh and Park 2013) shows that capital market integration can have a meaningful effect on the cost of capital and corporate investment. This study estimated stock pricing before and after financial cooperation using the

CAPM model, in particular focusing on ASEAN+3. The estimation results reveal that the cost of equity financing under ASEAN+3 is lower than under domestic markets.

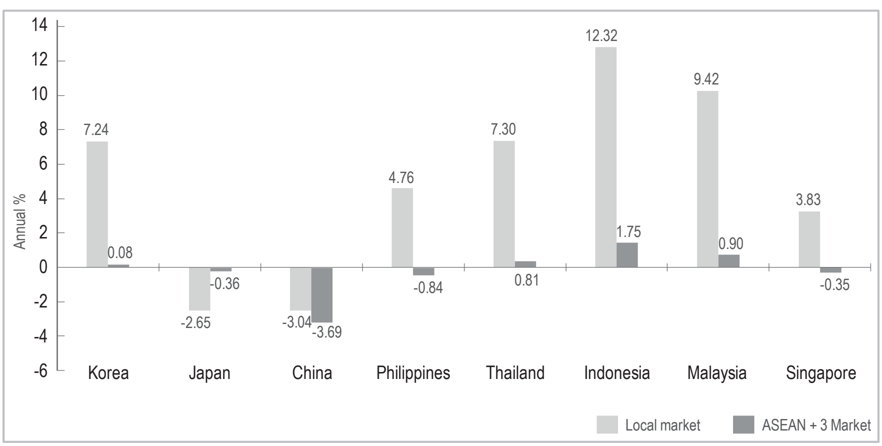
Box 4. Estimation on Local CAPM and ASEAN+3 CAPM for Stock Pricing

cost of equity of firm i under domestic market CAPM $= \hat{E}\left(R_{f,t}^{c} + \hat{\beta}_i^c\left(R_t^{MSCI,c} - R_{f,t}^{c}\right)\right)$

cost of equity of firm i under ASEAN + 3 market CAPM

$$= \hat{E}\left(R_{f,t}^{Japan} + \hat{\beta}_i^c\left(R_t^{MSCI,Asia} - R_{f,t}^{Japan}\right)\right)$$

Box 4 Figure 1. Change in Cost of Equity Due to Integration



Source: Binh and Park (2013), pp. 3-5.

2) How does financial cooperation in APEC ease financing constraints for SMEs ?

Financial cooperation facilitates "cross-border fundraising and investment," and thus SMEs can access a wider variety of funding sources. Not only this, but financial cooperation also expedites "market access by financial intermediaries" and makes risk-sharing from portfolio diversification, market expansion, and efficiency in resource allocation possible. These benefits would help relax financing constraints for SMEs manifesting as enormous opportunities in a huge financial market.

Economists and the business community deem the 21st century as the era of Asia's "awakening," indicating that the shift in capital flows will be (and actually have been) aimed toward the Asian region.

Continuing the second opportunity argument above, potential capital sources from outside the Asian region are very lucrative and readily available, especially in the wake of the European market debacle.

3) What are the problems that could arise from an APEC SME financing support program similar to EC's program? (such as EIF)?

If APEC wants to lead this SME financing support program because they wish to take the initiative in financial cooperation, they will have to be satisfied with a miniscule fund. That is, since the size of the fund is likely be small, countries outside of APEC will need to join. Naturally that leads to several problems: How much of a shareholder status should those countries be given? Or would there even be countries willing to participate? Who will be the lender of last resort in the event the fund fails?

The outlook becomes much more positive if the potential pool of participating countries is expanded to APEC.

4) Does this not overlap with activities carried out by similar international institutions?

A quick search of international financial institutions focusing on Asia shows that the Asian Infrastructure Investment Bank (AIIB), recently established, is the best choice of comparison. However, AIIB, led by China, is aimed at investments in infrastructure development. Meanwhile, Asian Development Bank (ADB), led by Japan, is being run as a fund for development in the Asian region, but can hardly be considered a financial institution specifically established for SMEs. This proves the necessity for an SME financing fund led by APEC and aimed to support SMEs in APEC. To stimulate SME financing through such a fund and help SMEs extend their business outside of the region, as in the case of Europe, we must design SME financing policies at the APEC level.

5) What are the constraints of market-based instruments for SME finance?

Current circumstances indicate that member countries have enacted and administered highly disparate sets of regulations and regulators. Moreover, the degree of enforcement of those regulations is uneven among APEC countries. Traditionally, risk appetite in the region is relatively low. Citizens are more inclined to save in the banking system rather than invest in capital market products. Educational gaps exist, in terms of lack of awareness, understanding, and financial literacy. Information paucity also exists: limited data sharing, insufficient disclosure of information and reporting. Limited buy-ins by institutional investors and patient capital, lack of infrastructure for information provision, lack of valuable ecosystems tailored to SMEs (equity research, market makers, brokers/dealers, etc.) are issues that still need to be resolved.

3. Suggestions and the Way Forward

From an international viewpoint in particular, developing countries are expected to display growing interest in SMEs. It has been a few years since SME support attained a permanent status as an agenda of intra-regional economic cooperation, including in G20 meetings. The necessity to "scale up successful models of SME financing in developing countries" was reiterated at the Pittsburgh Summit, and the G20 Seoul Summit featured discussions involving government representatives and international financial institutions on building models for innovative SME financing. This does not mean, however, that any details have been agreed on or that specific SME financing models suited to developing countries are being designed. With the aforementioned points in the background, this study will wrap up by making proposals for APEC's SME financing policies based on the implications drawn from the EU's EIF. These proposals presume that an SME-specific fund is established at the APEC level (ASIF, or Asian SMEs' Investment Fund), and that this fund will focus on SME financing policies.

<u>Stimulating APEC's SME finance</u>

1) Focus on PCGS (public credit guarantee system) in the very early stages of financial cooperation

As of now ASEAN members within APEC are in the very early stages of financial cooperation, and the advancement of capital markets is considerably slow. Capital market integration within the ASEAN aims to accelerate the development of an integrated capital market through the Implementation Plan 2015. The ultimate vision of this plan is to realize capital market integration on a level that would allow free intra-regional capital movement and allow issuers to raise capital or invest anywhere in the region. The guiding principles behind Implementation Plan 2015 are cross-border laws to stimulate cross-border transactions as in the EU, coordination and mutual recognition of regulations and operational systems, and reinforcement of market access through the liberation of capital movement and extensive coordination.

The key objective of reinforcing capital market integration and cooperation is to foster financial intermediation and enhance risk management so as to support economic growth on the national and regional level, and to overcome vulnerability to external shock such as financial crises as well as market volatility. The underlying principles are maximum accommodation of international standards, gradual liberalization to encourage market entry through competition and to cut costs, ease of implementation, consistent policy implementation plans at the national level for effective monitoring measures and regional integration, and smooth communication to enable a consensus on integrated strategy development and priority setting.

Thus, it may be difficult to immediately apply equity financing through capital markets at this stage. It is rather a matter to be reviewed after examining the progress of financial integration in 2015. As mentioned above, however, it is advisable to build an equity market establishment plan to encourage SME financing at the APEC level, as a side project to ASEAN's financial integration.

2) Include both CGS-style financing and market-based financing in SME financing policy

SMEs' financing initiatives must include both CGS (credit guarantee system)-style financing and market-based financing, and must take into account both standard SMEs and high-growth, innovation-based small companies. These initiatives should point toward the same direction as initiatives for regional financial integration or cooperation among APEC members, and ASEAN+3 in particular.

This option complements what was available in early stages of financial cooperation, in which the only consideration was a guarantee system; as financial cooperation moves forward, market-based financing emerges as a viable accompaniment. As SME financing measures become more diverse, there will be less financing gaps among APEC members thanks to reduced financing costs and the promise of alternative markets. .

3) Settle on a definition of SMEs based on unified criteria

A definition of SMEs needs to be settled upon, with unified criteria respectively elaborated for standard SMEs and innovative SMEs. According to the OECD (2006), the number of employees, as the indicator that defines SMEs, varies across countries. The most frequent upper limit designation of an SME is 250 employees, as in the European Union. However, some countries set the limit at 200, while the United States considers SMEs to include firms with fewer than 500 employees.[17]

In the EU, the formal definition of SME was made by the EC. The first and original definition was made in 1996, and then there were some modifications to

[17] OECD (2006); OECD (2015a), financing SMEs and Entrepreneurs 2015, an OECD scoreboard 2015 Table A.3.

reflect the changes that occurred in EU (EU recommendation 2003/361). OECD (2015a)[18] defines that "Small firms are mostly considered to be firms with fewer than 50 employees while micro-enterprises have less than ten. Medium-sized firms have between 50 and 249 employees. Turnover and financial assets are also used to define SMEs; in the EU, the turnover of an SME cannot exceed EUR 50 million and the annual balance sheet should not exceed EUR 43 million."

4) Develop a PCGS-style support scheme within the APEC framework

APEC needs a centrally-managed fund such as the EIF under the EIB. The Competitiveness and Innovation Programme (CIP) can be applied to the SME environment in APEC. In this regard, slight variations on the four different windows for SMEG in line with the harmonized definition of SMEs are called for.

The support scheme should be distinct from the recently launched AIIB. AIIB (2015)[19] presents that "The AIIB, a modern knowledge-based institution, will focus on the development of infrastructure and other productive sectors in Asia, including energy and power, transportation and telecommunications, rural infrastructure and agriculture development, water supply and sanitation, environmental protection, urban development and logistics, etc. The operational strategy and priority areas of engagement may be revised or further refined by its governing boards in the future as circumstances may warrant."

The shared purpose of PCGS needs to be clearly defined. Tools are needed to evaluate the costs and benefits of PCGS; in other words, to evaluate the performance of SMEs in different countries, and a database should also be developed to this end.

[18] OECD (2015a), Box A.1, p. 392.

[19] AIIB (2015), website information, http://www.aiib.org/html/aboutus/AIIB/ (Accessed on September 4, 2015).

5) Establish an equity market-based support system specialized for SMEs

The EIF in the EU has a program for an equity- market-based support system. The Fund holds venture capital instruments as high growth and innovative SME facility (GIF). In addition, there is a securitization window that focuses on SMEs in enhancing access to finance for SMEs.

We need to analyze the strengths and weaknesses of equity markets in individual countries, and explore the type of system needed under financial cooperation. In addition, the costs and benefits of an equity market specialized for SMEs under financial cooperation must be examined. A specific market infrastructure should be designed to give support to this system.

As reviewed in 4) and 5), a fund similar to EIF is needed in order to utilize PCGS-style and market-based financing in APEC. Lastly, the following action plans are suggested regarding the creation of ASIF (Provisional title) in APEC.

Action Plan for ASIF (Provisional title)

1) Surveying and assessing the SME financing gap in APEC

There is a need to evaluate the financing gap among SMEs in APEC. Various methods could be adopted for this purpose, one of which is to estimate the SME capital demand function and capital supply function in a disequilibrium market model {Maddala *et al.* (1974), Shinozaki (2012)}. This can be used to estimate the SME financing gap and analyze the impacts upon it from greater external financing. An analysis of each APEC nation and a comparison of the estimated coefficients would enable assessment of the SME financing gap. Another method that could be used is one utilized by the EU, which is to use survey results. The EU conducts a yearly survey on financing status, and based on this data estimates capital demand in SMEs. It seems much more realistic to estimate the financing gap among SMEs based on actual surveys than to make an estimation from capital demand and supply functions. There is no known survey conducted in this manner within APEC, and this calls for a survey and a following estimation of APEC's SME financing gap and the total scale of capital the region is currently in need of.

2) Establishing a single definition of SMEs among APEC members

It is necessary to establish a consistent definition of SMEs among APEC members. This is directly linked to what criteria will be used for companies to benefit from SME financing policies once a fund is established. A firm and unified definition will prevent any fairness issues among APEC members that may arise when operating funds like the ASIF.

3) Forming a taskforce for designing the basic structure of ASIF

The following should be discussed when designing a structural framework for ASIF.

- Agree on an objective
- Decide whether membership will be based on nation, classifying member and associate members, or based on stakeholder membership like the EIF; in the case of the latter, discuss whether public and private institutions (FIs) from different nations will be included as stakeholders
- Propose the type, nature, conditions of financial tools to be used by the ASIF
- Discuss solutions for any corporate insolvency issues
- Discuss whether it is necessary to select key financial institutions of

member countries to deal with the ASIF

- Give emphasis to the importance of Research & Market Analysis (RMA) functions (ASIF's strategic decision-making, product development and market analyses)

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Appendix

Table A1. SME Policies and Financial Regulations

<table>
<tr><th colspan="2">Country</th><th colspan="2">Regulators and Regulations Policymakers</th><th>Policies</th></tr>
<tr><td rowspan="8">China, People's Republic of</td><td rowspan="3">SME Promotion</td><td>State Council</td><td rowspan="2">Law on Promotion of SMEs (2003)</td><td rowspan="8">(1) Growth Plan for SMEs in the 12th Five-Year Program (2011–2015)
(2) Opinions on Further Supporting Healthy Development of MSEs (2012)
(3) Implementation Plan on Supporting the Development of MSEs (2013)
(4) Scheme on Division of Work for Key Authorities to Further Support Healthy Development of MSEs (2012)</td></tr>
<tr><td>National Development and Reform Commission</td></tr>
<tr><td>Ministry of Industry and Information Technology</td><td>Regulations on SMEs Classification Criteria (2011)</td></tr>
<tr><td>Banking Sector</td><td rowspan="2">China Banking Regulatory Commission</td><td rowspan="2">Banking Supervision Law (2003)</td></tr>
<tr><td>Nonbank Sector</td></tr>
<tr><td rowspan="3">Capital Markets</td><td rowspan="2">China Securities and Regulatory Commission</td><td>Law on Securities (2005)</td></tr>
<tr><td>Securities Investment Fund Law (2012)</td></tr>
<tr><td>National Association of Financial Market Institutional Investors (NAFMII)</td><td></td></tr>
</table>

Table A1. Continued

<table>
<tr><td rowspan="12">Korea, Republic of</td><td rowspan="7">SME Promotion</td><td rowspan="7">Small and Medium Business Administration (SMBA)</td><td>Promotion of Small and Medium Enterprises and Encouragement of Purchase of Their Products Act (2007)</td><td rowspan="12">(1) Annual SMBA Business Plan (2013)
(2) National Strategy for Green Growth (2009-2050)
(3) Third Science and Technology Basic Plan (2013-2017)</td></tr>
<tr><td>Framework Act on Small and Medium Enterprises (2007)</td></tr>
<tr><td>Support for Small and Medium Enterprises Establishment Act (2007)</td></tr>
<tr><td>Small and Medium Enterprises Promotion Act (2007)</td></tr>
<tr><td>Small and Medium Enterprise Cooperatives Act (2007)</td></tr>
<tr><td>Act on Facilitation of Purchase of Small and Medium Enterprise-Manufactured Products and Support for Development of Their Markets (2009)</td></tr>
<tr><td>Act on the Fostering of Sole proprietor Creative Business (2011)</td></tr>
<tr><td>Banking Sector</td><td rowspan="5">Financial Services Commission (FSC)
Financial Supervisory Service (FSS)</td><td>Banking Act</td></tr>
<tr><td rowspan="3">Nonbank Sector</td><td>Specialized Credit Financial Business Act</td></tr>
<tr><td>Credit Unions Act</td></tr>
<tr><td>Credit Guarantee Fund Act</td></tr>
<tr><td>Credit Guarantee Fund Act</td><td>Financial Investment Services and Capital Markets Act</td></tr>
</table>

Table A1. Continued

<table>
<tr><td rowspan="9">Indonesia</td><td rowspan="2">SME Promotion</td><td>National Team for the Acceleration of Poverty Reduction, Office of the Vice President (TNP2K) [financial inclusion]</td><td rowspan="2">Law No.20/2008 on Micro, Small and Medium-sized Enterprises</td><td rowspan="9">(1) MSME Development Action Plan 2005-2009 (2005)
(2) Instruction of the President of the Republic of Indonesia No.6/2007 and No.5/2008(New Economic Policy Package I & II)
(3) Joint Decree on MFI Promotion Strategy (2009)
(4) Capital Market and Non Bank Financial Industry Master Plan 2010-2014 (2010)
(5) National Strategy for Financial Inclusion (2012)</td></tr>
<tr><td>Bank Indonesia [financial inclusion]</td></tr>
<tr><td rowspan="2">Banking Sector</td><td>Financial Services Authority (OJK)</td><td rowspan="2">Law No.7/1992 and Law No.10/1998 (amendment) on Banking</td></tr>
<tr><td>Coordinating Ministry of Economic Affairs [KUR]</td></tr>
<tr><td rowspan="5">Nonbank Sector</td><td rowspan="4">Financial Services Authority (OJK)</td><td>Presidential Regulation No.9/2009 on Financing Institutions</td></tr>
<tr><td>Presidential Decree No.2/2008 on Guarantee Institutions</td></tr>
<tr><td>Regulation No.222/2008 and No.99/2011 on Guarantee Institutions and Reguarantee Institutions</td></tr>
<tr><td>Law No.1/2013 on Microfinance Institutions</td></tr>
<tr><td>Ministry of Cooperatives and SMEs</td><td>Law No.17/2012 on Cooperatives</td></tr>
</table>

Table A1. Continued

	Capital Markets	Financial Services Authority (OJK)	Law No.8/1995 on Capital Market	
Malaysia	SME Promotion	National SME Development Council (NSDC)	National SME Development Council Directive 2004	(1) SME Master Plan 2012-2020 (2) Financial Sector Blueprint 2011-2020
		SME Corporation Malaysia (SME Corp.)	Small and Medium Enterprises Corporation Malaysia Act 1994	
	Banking Sector	Bank Negara Malaysia	Financial Services Act 2013	
	Nonbank Sector			
	Capital Markets	Securities Commission Malaysia	Capital Markets and Services Act 2007	
Philippines	SME Promotion	Department of Trade and Industry	Magna Carta for Micro, Small and Medium Enterprises (R.A. No. 6977 of 1991, as amended by R.A. 8289 of 1997, and further amended by R.A. 9501 of 2008)	(1) Small and Medium Enteprise Development Plan (2004–2010) (2) Micro, Small and Medium Enteprise Development Plan (2011–2016) (3) Philippine Development Plan (2011–2016)
		Micro, Small and Medium Enterprise Development Council (MSMED Council)		
		Bureau of Micro, Small and Medium Enterprise Development (BMSMED)	Barangay Micro Business Enterprises (BMBE) Act, R.A. No. 9178 (2002)	

Table A1. Continued

	Banking Sector	Bangko Sentral ng Pilipinas	General Banking Law 2000, Rural Banks Act, Thrift Banks Act, Pawn Shops Regulation Act, etc.	
	Nonbank Sector			
		Cooperative Development Authority	Cooperatives Code	
	Capital Markets	Securities and Exchange Commission	Securities Regulation Code (RA8799)	
Thailand	SME Promotion	Office of Small and Medium Enterprises Promotion (OSMEP)	SME Promotion Act, B.E.2543 (2000)	(1) The First SMEs Promotion Plan (2002–2006) (2) The Second SMEs Promotion Plan (2007–2011) (3) The Third SMEs Promotion Plan (2012–2016) (4) SME Promotion Strategic Plan and Action Plan by Sector (2013) (5) Thailand Country Strategy (2012) (6) Five-Year Strategic Plan [central bank] (2012)
		Ministry of Industry	Ministerial Regulation B.E.2545 (2002)	
		National Board of SMEs Promotion	-	
	Banking Sector	Fiscal Policy Office, Ministry of Finance [state-owned banks]	-	
		Bank of Thailand	Financial Institution Business Act B.E.2551 (2008)	
			SME Development Bank of Thailand Act B.E.2545 (2002)	

Table A1. Continued

			Small Industry Credit Guarantee Corporation Act B.E.2534 (1991)	
	Nonbank Sector		Credit Information Business Act B.E.2545 (2002) [amendments in 2006 and 2008]	
			Business Security Act (draft)	
	Capital Markets	Securities and Exchange Commission	Securities and Exchange Act B.E.2535 (1992)	
Viet Nam	SME Promotion	SME Development Promotion Council	Decree No.90/2001/ND-CP on Support for Development of SMEs (2001)	(1) 5 Year SME Development Plan 2006–2010 (2005) (2) 5 Year SME Development Plan 2011–2015 (2012)
		Ministry of Planning and Investment (MPI)		
		Agency for Enterprise Development, MPI	Decree No.56/2009/ND-CP (2009)	
		Ministry of Science and Technology	-	
		Ministry of Industry and Trade	-	
	Banking Sector	Ministry of Finance [Credit Guarantee Fund]	-	

Table A1. Continued

		State Bank of Vietnam	Law No.02/1997/ QH10 on Credit Institutions	
	Nonbank Sector		Decree No.28/2005/ND-CP and Decree No.165/2007/NDCP (amendment) on MFIs	
			Law No.18/2003/QD on Cooperatives	
			Decree No.48/2001/ ND-CP on People's Credit Fund	
	Capital Markets	State Securities Commission of Vietnam	Law No.70/2006/ QH11 on Securities	
Papua New Guinea	SME Promotion	National Executive Council (NEC)	Small Business Development Corporation Act (1990)	(1) 12 Point SME Stimulus Package (2012) (2) Industrial Development Policies (various) (3) SME Master Plan and Policy 2014-2030 (2015anticipated) (4) Small to Medium Enterprise Policy (1998, to be repealed in 2015)
		Small Business Development Corporation (SBDC)		
		Investment Promotion Authority (IPA)		
	Banking Sector	Ministry of Trade, Commerce and Industry	National Development Bank Act (2007)	
		Bank of Papua New Guinea	Banks and Financial Institutions Act (2000)	
	Nonbank Sector		Savings and Loan Societies Act (1995)	

Table A1. Continued

			Personal Property Security Act (2011)	
	Capital Markets	Securities Commis-sion of PNG, IPA	Securities Act (1997)	

Source: ADB (2014), *ASIA SME FINANCE MONITOR 2014*, pp. 75-101, pp. 159-283.

Annex : List of Acronyms

- ABF: Asian Bond Fund
- ABMI: Asian Bond Markets Initiative
- ABS: Asset Backed Securities
- ACMF: ASEAN Capital Market Forum
- ADB: Asian Development Bank
- AIIB: Asian Infrastructure Investment Bank
- APEC: Asia-Pacific Economic Cooperation
- ARFP: Asia Region Funds Passport
- ASEAN: Association of Southeast Asian Nations
- ASEAN+3: 10 ASEAN members, Korea, China, and Japan
- ASIF: Asian SMEs' Investment Fund
- BIS: Bank for International Settlements
- BSE: Bombay Stock Exchange
- CDO: Collateralized Debt Obligation
- CDP: Contrat de Developpement Participatif
- CGIF: Credit Guarantee Investment Facility
- CGS: Credit Guarantee Schemes
- CIP: Competitiveness and Innovation Framework Programme
- CRD: Capital Requirements Directive
- EC: European Commission
- ECB: European Central Bank
- EIB: European Investment Bank
- EIF: European Investment Fund

- EIS: Enterprise Investment Scheme
- ES: Enterprise Survey
- ESIF: European Structural and Investment Funds
- FP6: Sixth Framework Programme
- FSI: Fonds Strategique d'Investissement
- GCF: Gross Capital Formation
- GIF: High growth and innovative SME facility
- HNX: Hanoi Stock Exchange
- IFC: International Finance Corporation
- IPO: Initial Public Offering
- JEREMIE: Joint European Resources for Micro to Medium Enterprises
- KOFIA: Korea Financial Investment Association
- KONEX: Korea New Exchange
- KOSDAQ: Korean Securities Dealers Automated Quotations
- KRX: Korea Exchange
- LCY: local currency
- LGF: Loan Guarantee Facility
- MAI: Market for Alternative Investment
- MAP: Multiannual Programme for Enterprise and Entrepreneurship
- MSME: Micro, small, and medium enterprise
- NoE: Networks of Excellence
- NSE: National Stock Exchange
- OTC: Over the Counter
- PCGS: Public Credit Guarantee System
- PE: Private Equity
- PSE: Philippine Stock Exchange

- R&I: Research and Innovation
- RMA: Research and Market Analysis
- RSFF: Risk-Sharing Finance Facility
- RSI: Risk-Sharing Instrument
- RWA: Risk-Weighted Asset
- SEADI: Support for Economic Analysis Development in Indonesia
- SEIS: Seed Enterprise Investment Scheme
- SET: Stock Exchange of Thailand
- SME: Small and medium sized enterprise
- SMEG: SME Guarantee Facility
- SMESec: SME Securitisation (comprising transactions based on SME loans, leases etc.)
- SPV: Special Purpose Vehicle
- SZSE: Shenzhen Stock Exchange
- VC: Venture Capital
- VCT: Venture Capital Trust Scheme
- WEF: World Economic Forum

국문요약

글로벌 금융위기 이후 경기침체로 APEC 회원국들은 새로운 성장모델을 찾고 있다. 대부분의 국가에서 전체 기업의 90% 이상을 차지하는 중소기업은 혁신사업 아이디어를 상업화하는 과정에서 기술진보를 통해 생산성을 높이고, 그 결과 지속적인 경제성장을 달성할 뿐 아니라 고용창출에도 매우 중요한 역할을 한다. 그러나 대부분의 국가에서 중소기업은 대기업에 비해 더 큰 자금조달 제약에 놓여 있다. 일반적으로 그러한 자금조달 제약은 대출자와 대부자 간에 나타나는 정보의 비대칭성과 대리인 비용으로 인해 나타날 수 있는 현상이며, 이는 중소기업 발전을 저해하는 요인들이다.

일반적으로 중소기업의 금융지원방식은 대출(Loan program)을 통하는 방식, 투자(Investment)를 통하는 방식, 보증(Guarantee)을 통하는 방식으로 구분된다. 이 중 은행대출을 통하는 방식은 특히 초기 중소기업 입장에서 접근하기 쉽지 않은 자금조달 방법으로, 정부의 신용보증이 보충되지 않는다면 자금조달에 성공하기 어려운 방법이다. 특히 은행의 위험자본에 대한 규제가 2008년 글로벌 금융위기 이후 강화됨으로써 중소기업이 은행을 통해서 자금을 조달하기가 더욱 어려워졌다. 뿐만 아니라 글로벌 금융위기 이후 유럽을 중심으로 국가재정에 대한 위기의식이 확산됨에 따라 예전과 같은 정부의 중소기업 금융지원정책 또한 한계가 있다. 결국 지속적으로 중소기업 금융지원이 이루어지기 위해서는 정부의 정책적 지원을 대체할 수 있는, 자본시장을 통한 자금조달 활성화 방안을 찾아야 한다. 특히 초기 창업기업이나 업력이 낮은 기업, 혹은 혁신기업은 담보 부족이나 높은 위험에 노출되므로, 은행을 통한 자금조달에는 제한이 있고 정부의 지원은 정부 재정문제뿐 아니라 기업의 생존능력을 저하시킨다는 단점이 있다.

따라서 이를 해결하기 위한 대안 중 하나로 위험을 분산할 수 있는 자본시장을 통한 자금조달 체계가 필요하다. 그러나 이러한 시장중심의 자금조달 체계는 위험을 분산하기 위해 대규모 자금이 집중될 수 있는 큰 시장이 존재해야 한다. 덜 발전되었거나 소규모인 자본시장에서는 이러한 위험의 분산이 어려울 수도 있다. 만

약 이와 같이 대규모 자금의 집중이 어려운 시장이라면, 다음 두 가지 대안 중 하나를 선택할 수 있다. 첫째는 시간을 두고 대규모 자금이 집중되는 시장을 만드는 방법이다. 예를 들면,미국이 자본시장을 활용하여 한 번에 500개의 중소기업을 지원할 수 있다면, 이 대안은 한 번에 5개씩 100년간 500개의 기업을 지원하는 방법이다. 이를 위해서는 유럽 방식의 정책금융체계가 필요하다. 둘째 대안은 금융시장을 확장하는 방법인데, 이러한 방식이 작동하려면 금융시장의 확장으로 외국인 투자자들의 자본거래가 자유롭게 이루어지는 계약의 보편성(universality of contracts)이 작동하는 시장이어야 한다. 계약의 보편성은 자본을 출자한 외국인투자자들의 재산권이 동등하게 보호된다는 것을 의미한다.

최근 EU는 자본시장을 통해 자금을 조달하는 다양한 방법을 제시하고 있다. EU의 중소기업 지원정책, 특히 중소기업 금융에 초점을 둔 정책의 특징을 보면, 과거 대출을 통한 자금조달(Debt financing) 위주의 정책에서 최근 시장에 기반한 자금조달(market-based financing)에 초점을 둔 정책으로 정책의 방향이 크게 바뀌었다. 특히 EU 차원에서 중소기업 금융에 초점을 둔 기금을 만들고 이 기금을 기반으로 자본시장에서 거래 가능한 다양한 상품을 통해 중소기업에 자금을 조달하는 방법으로 중소기업 금융정책을 운영하고 있다. 중소기업 금융에는 위험이 수반되므로 이를 위험한 자본이 거래될 수 있는 시장을 통해 활성화하겠다는 논리가 정책의 기반이 되고 있다.

본 연구에서는 최근 유럽의 중소기업 금융정책을 살펴보고, 중소기업 금융활성화를 위한 정책적 제안을 한다. EIB(European Investment Bank)는 다양한 중소기업지원 프로그램을 통해 중소기업 금융정책을 수행하고 있는데, EIF(European Investment Fund)가 중소기업의 자금을 할당하는 역할을 한다. EIF도 초기에는 정부보증 위주의 정책수단을 사용했지만, 지금은 다양한 자본시장 중심의 금융상품을 통해 중소기업에 자금을 조달하고 있다. EIF는 SME를 지원하기 위한 다양한 금융상품을 통해 2014년에만 17만 5,000개의 중소기업을 지원한 것으로 나타났다.

APEC 차원의 중소기업 금융활성화 방안을 위해, 본 연구에서는 우선 금융협력 초기 단계에는 PCGS(Public credit guarantee system)에 초점을 맞출 것을 제안한다. 둘째, 금융협력이 어느 정도 진행됨에 따라 PCGS 스타일의 자금조달 방식에

시장중심적 자금조달 방법을 적극적으로 함께 고려하도록 제안한다. 중소기업 금융지원 방안이 다양해질수록 중소기업의 자금조달 비용 감소로 APEC 내 회원국들의 자금조달 갭이 감소할 수 있다. 또한 본 연구에서는 APEC에 ASIF(가칭)를 구축하기 위한 액션플랜도 함께 제시하고 있다.

핵심용어: 중소기업금융, 시장중심적 자금조달, 신용보증, APEC 협력

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