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Developing the Capital Market to Widen and Diversify SME Financing: The Korean Experience

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Executive Summary

SME Financing and Financing Gap

SMEs consist of firms varying widely in size and characteristics -- namely from very small start-up firms in an infant stage of development to established SMEs already listed on the stock market. Of course, the major sources of financing for SMEs differ depending on their current stage of growth and development. However, it is agreed that most SMEs heavily depend upon bank loans and generally experience a 'financing gap,' even in developed countries.

This financing gap, often defined as the difference between the demand for funds by SMEs and the supply of funds, occurs because of various reasons. Some argue that the fundamental reasons behind SMEs' lack of access to funds can be found in their peculiar characteristics, while others argue that SMEs suffer from financing gaps because of market imperfections on the supply side. In reality, SMEs face financing gaps probably because of a combination of reasons originating from both the supply and demand sides. This financing gap for SMEs is most prominent in capital market financing and most countries, including developed ones, have problems in SME financing through capital markets.

SME Financing through Capital Markets: Obstacles

With regard to SME financing, a move away from bank intermediation towards funding in the capital markets has long been considered a long-term objective of many countries in the region. If successful, this approach would address the chronic lack of long-term credit available to SMEs. This promising move, however, has many hurdles until its full implementation.

The first hurdle to overcome is having an adequately developed capital market in terms of depth and liquidity. Second, SMEs, in essence, have relatively high credit risk. While SMEs have high growth potential, they are also more vulnerable to sudden changes in the economic and competitive environment. Third, there exists severe information asymmetry in this segment of enterprises. SMEs' corporate information is often nonexistent, or comes with very high access costs in many economies in the region. Fourth, SME financing is inherently associated with a higher unit cost when compared with that of large corporations. The relatively smaller size of funding, as well as higher information and monitoring costs, leads to higher implementation costs per deal when processing finance in capital markets.

SME Financing in Capital Markets: The Korean Experience

1) Issuance of P-CBOs

The Korean government introduced the primary collateralized bond obligation (P-CBO) program in order to smooth out liquidity constraints and support SMEs. Started in 1999, the P-CBO program was expanded to include venture firms in 2001. A P-CBO is a type of asset-backed security (ABS) with newly-issued corporate bonds as the underlying asset. SMEs issue new corporate bonds and sell them to a special purpose vehicle (SPV) as an underlying asset. The SPV then issues the CBO based on the pool of SMEs' newly-issued corporate bonds, and sells the CBO to investors in the market. Credit enhancement is provided through various channels, including banks and credit guarantee funds. The SPV issues both senior and junior tranche bonds, with senior tranche usually at AAA grade.

P-CBOs offer more fundraising opportunities to SMEs that have low credit ratings. In fact, the distinguishing feature of the P-CBO program lies in facilitating the issuance of corporate bonds to help finance SMEs. Because P-CBOs pool bonds with different levels of risk, the overall risk of default decreases. Because P-CBOs are issued through strict surveillance by credit rating agencies, they are a relatively safe and fairly attractive investment. Furthermore, P-CBOs can offer higher yields than general corporate bonds to mezzanine tranche investors. In short, P-CBOs can be a useful instrument that can resolve the credit mismatch problem that exists between investors and SMEs, thus filling the financing gap of SMEs.

2) Venture Capital

The venture investment consists of three stages: fundraising, investment, and exit. Most investors may invest in SMEs directly or indirectly through investment funds made by venture capital companies. IPOs in the stock market and M&As are the most widely used exit methods.

The central and local governments in Korea are the largest investors in venture capital companies' fundraising, comprising 24.4% of the total fundraising, while other business entities come in second, with 20% of the total fundraising. Compared to the U.S. and Europe, where pension funds and institutional investors take the largest share of total investment in venture companies, the government plays a larger role in the Korean venture capital market. As for the exit strategy of venture investment, the

KOSDAQ has been a key factor in the success of venture capital companies, as it is the main exit channel for investment. M&As are common in the U.S., where almost 70% of venture investment chooses M&A as its exit method, while the remaining 30% chooses to pursue an IPO. In Korea, 90% of venture capital investment depends on IPOs on the KOSDAQ, and M&As take only 10%.

The Korean government used to directly invest in venture investment funds before the government's "Fostering Venture Companies" drive was announced in 2004. In addition, the government's investment resources were quite decentralized, with various government bodies administering different parts of the process. The government needed a stable and unified source of venture investment. As a result, the Korea Fund of Funds (KFoF) was established in 2005. In contrast with the previous system, where the government directly chose the recipient companies as well as determined the amount of funds, the fund of funds (FoF) system allows a fund manager to evaluate, select, and distribute capital to a number of funds. KFF is expected to play a significant role in making the venture capital market more transparent and efficient.

Policy Recommendations

SMEs with high growth potential, especially in high-technology sectors, have played an important role in raising productivity and maintaining competitiveness in recent years. If SMEs, especially innovative early-stage SMEs, cannot find the financing they need, their brilliant ideas will never be developed to products, no matter how great their potential. Therefore, government and policymakers not only have to focus on the development and growth of the capital market itself, but also search for a means to overcome the obstacles inherent in SMEs in order to facilitate active SME financing through capital markets.

1) Building a Credible SME Information Sharing System

For both bond and equity markets, providing access to credible corporate information on SMEs is an important task that will ease information asymmetry. To start, policymakers should search for a way to utilize the information about SMEs currently scattered around the banking sector, in credit guarantee schemes, and other existing government programs, as well as in common commercial credit programs. Once aggregated, this collective data base will have a higher chance of providing more credible information and easier access to potential investors. The government must take the initiative and play a major role in this data collection process. In addition, credit information on individual consumers, already available through the public credit registry and/or private credit bureaus, will also play a significant role in easing information asymmetry in the SME sector. The credit assessment of SMEs often heavily depends on an individual, namely the owner and/or manager of the company. This is especially common for smaller companies.

2) Facilitating SME Financing through Bond Market

In the case of corporate bond issuance, pooling a group of SMEs may provide a plausible solution to the inherently higher credit risk and transaction costs associated with SME financing. As an individual company, a SME is exposed to high credit risk. However, once enough SMEs with various degrees of risk exposures to economic cycle are pooled together, the basket of SMEs as a whole may have credit risk low enough to be attractive to debt market investors. The problem of higher transaction costs will be resolved with the sufficient size of the deal. If the deal is structured with the number of tranches with credit enhancement in the lower tranche, the base of potential investors will be broadened with different levels of risk preferences.

Another indirect way of tapping into SME financing via the debt capital market is to liquidate bank loan assets in the market. The securitization of banks' SME loans in the capital market will, in turn, provide a larger buffer for banks to increase the amount of loans, thus raising the total volume of funds supplied to SMEs. This asset-backed securitization, often called collateralized loan obligation (CLO), has merit to investors because they can share the monitoring cost with banks. From the banks' point of view, they can share the credit risk exposure with debt market investors.

3) Fostering a Venture Capital Market

As for the equity market, fostering venture capital and providing an incentive-compatible environment throughout the whole activity cycle of venture capitalists are the first priorities. During the search phase, a credible information sharing system and networks in the technology and business assessment industries will play critical roles. Once an equity investment is put into place, the next step for the venture capitalist is to take an active role in raising corporate value through cooperation with the management team of the company. Thus, an appropriate route must be provided for the venture capitalist to participate in the management of the portfolio firm, be it through the legal framework or the customary practices in the market. Lastly, there should be a viable number of exit strategies for the venture capitalist. The more diverse exit strategies there are, the higher the probability of a venture capitalist's success. In sum, creating and providing a favorable environment throughout the entire investment process for a venture capitalist, from entry to exit, are the key factors to support stable growth of the venture capital market.

4) Cooperation and Coordination between Public and Private Sectors

The government's role is crucial in alleviating SME financing gaps in the capital market. However, it should be noted that the government's role is a necessary, but not sufficient, condition for building a stable source of funding through capital markets for SMEs. Without active participation from the private sector and investors, the whole endeavor cannot be a success. In this sense, the government should put more focus on identifying specific sectors of SMEs that are faced with the most severe financing gaps, and then construct an investor-friendly, incentive-compatible, and efficient market infrastructure in order to promote more active participation from the private sector.

The Korean experience in venture capital market is a good example of joint efforts between public and private sectors. Although the Korean government still plays a large role in the venture capital market, it has put forth a continuous effort to promote more participation from the private sector. Due to deregulation, more financial institutions are expected to participate in the market. Considering the establishment of the KFoF and the removal of constraints on investment from banks and insurance companies, the government is trying to construct an investor-friendly and incentive-compatible market infrastructure, rather than directly intervene in the market. The use of private expertise by hiring private fund managers for the management of the KFoF and its sub-funds will also improve fund performance and raise market standards.

I. Introduction

Firms draw their financing from a variety of sources. In general, firms' financing sources can be divided into two groups, namely the 'informal sector' and the 'formal sector.' The informal sector includes internal savings, retained earnings, and borrowing from family, friends, and individual money lenders. On the other hand, formal sector finance consists of loans from institutional lenders (such as banks, financing companies, and savings banks) and financing from capital markets (through issuance of securities such as bonds and equity). Most start-up companies depend heavily on financing from the informal sector. As a firm grows into a stable stage of development, access to financing from the formal sector widens, starting with loans from institutional lenders. From the perspective of all firms in an economy, only a small portion of firms have access to financing from capital markets.

Small and medium-sized enterprises (hereafter SMEs), which are the main focus of this study, consist of firms varying widely in size and characteristics -- namely from very small start-up firms in an infant stage of development to established SMEs already listed on the stock market. Of course, the major sources of financing for SMEs differ depending on their current stage of growth and development. However, it is agreed that most SMEs generally experience a 'financing gap,' even in developed countries. This financing gap, often defined as the difference between the demand for funds by SMEs and the supply of funds, occurs because of various reasons. Some argue that the fundamental reasons behind SMEs' lack of access to funds can be found in their peculiar characteristics, such as information asymmetry and economic uncertainty. Others argue that SMEs suffer from financing gaps because of market imperfections on the supply side; either the channel of financing is nonexistent, or there is a severe shortage of funds in that segment of the market. In reality, SMEs face financing gaps probably because of a combination of reasons originating from both the supply and demand sides. No matter the true underlining causes, the fact remains that there is a significant gap in SME financing that gives firm ground for the government and public sectors to fill this financing gap.

Most countries, including developed ones, have problems in SME financing through capital markets, which is the main focus of this study. One of the fundamental reasons behind this lack of financing is the fact that SMEs in general have relatively higher risk in their businesses compared to large corporations. Moreover, financial instruments related to SMEs in the capital market are often illiquid, partly because the total amount of the instrument itself is relatively small and because the investor base with matching risk profiles in the market is shallow. In this sense, it is important to construct an efficient capital market, and the government can play a large role in constructing the infrastructure necessary for efficient capital markets.

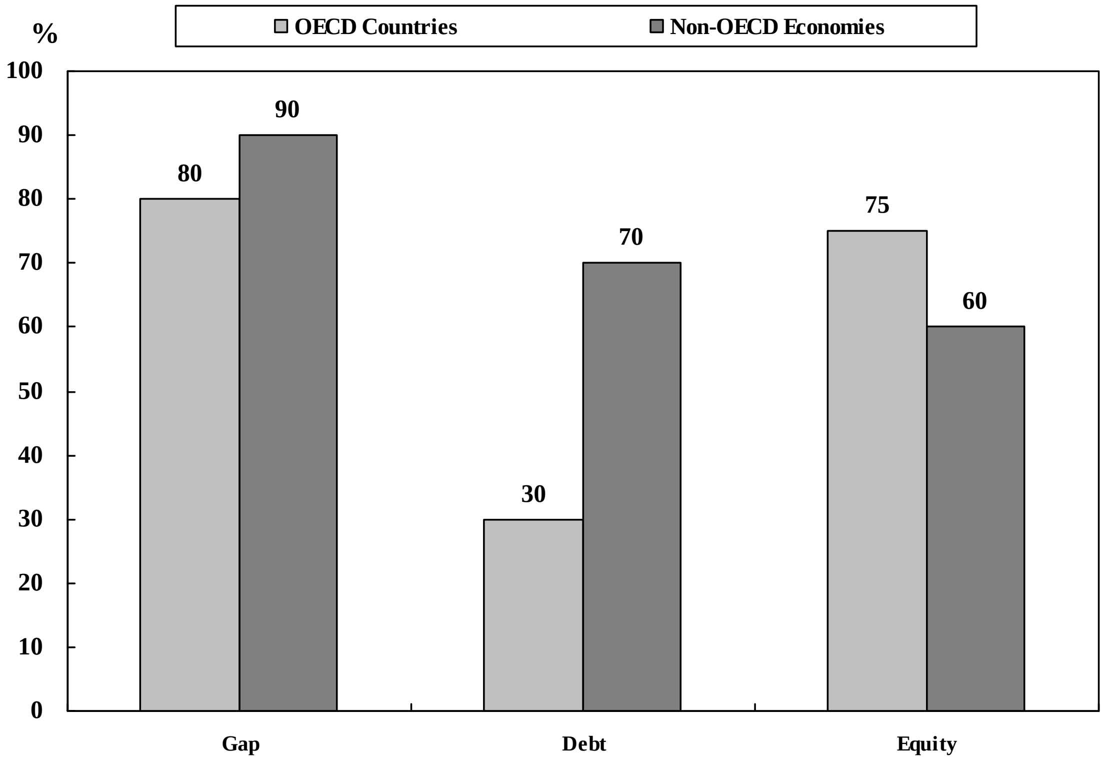
This study introduces the Korean experience of utilizing capital markets in SME financing. Chapter II contains a general description of SME financing tools. Chapter III introduces the Korean experience of SME financing through capital markets. Chapter IV discusses the implications of the Korean experience in SME financing and concludes the study with policy recommendations for SME financing through capital markets.

. SME Financing and Measures to Fill the Financing Gap

The overall SME financing gap is particularly prevalent in developing countries. An OECD (2006) survey reports that many non-OECD countries have a widespread shortage of financing for all categories of SMEs. Although SMEs play an important role in economic growth and employment, most of them are denied any access to formal financial markets. On the other hand, OECD countries do not report any generalized SME financing gap. They reported a financing gap primarily in equity financing and, even then, the gap may be concentrated in certain sectors, such as startups and high-tech firms. Since OECD countries have competitive financial markets, it is not hard for SMEs to get loans from banks, because banks regard SME finance as an attractive line of business. In fact, many banks have developed tools, such as credit scoring models and other sophisticated techniques, to discriminate between high-risk and low-risk borrowers, thus reducing the risk of lending to SMEs.

<Figure II-1> Is There a Financing Gap? Where is the Gap?

(Proportions indicate the share of countries in the survey with a reply that they have a financing gap)

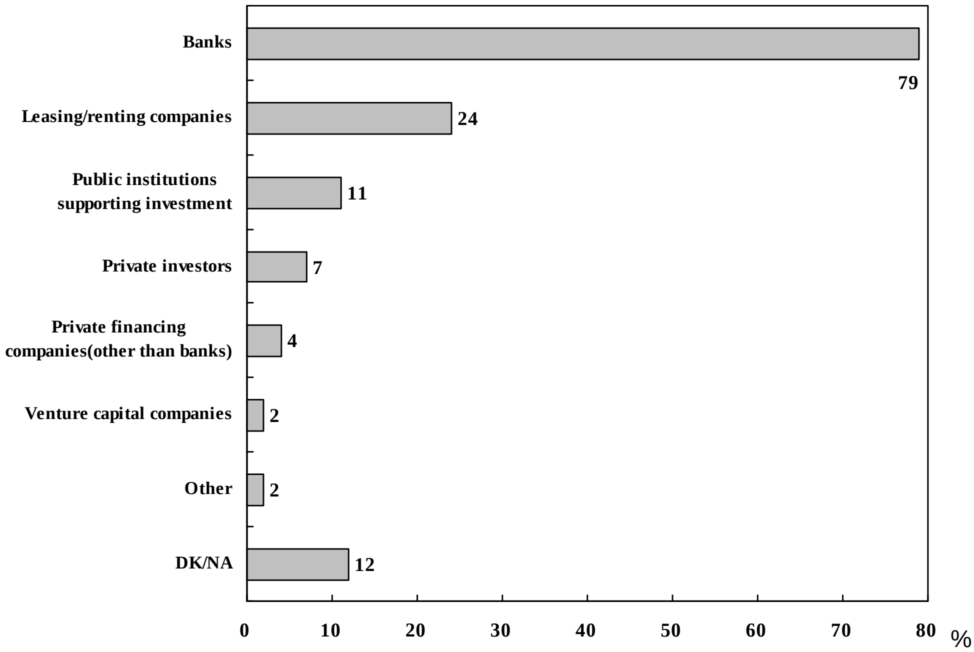


Note : In many cases of debt in OECD countries, this problem is limited to a subset of SMEs, mostly start-ups and very young firms. Data is based on the responses of 20 OECD and 10 non-OECD economies.

Source : OECD SME and Entrepreneurship Financing Survey.

In most countries, commercial banks are the main source of SME financing. However, heavy reliance on bank loans as a means of long-term financing is not desirable for SMEs. If bank loans are provided on a roll-over basis with short maturity, SMEs may face a failure of roll-over for the maturing loans when banks have liquidity problems. Hence, the funding sources of SMEs need to be diversified to a capital market where SME long-term financing is available, if the market is well-developed.

<Figure II-2> Sources of Financing for EU-Based SMEs

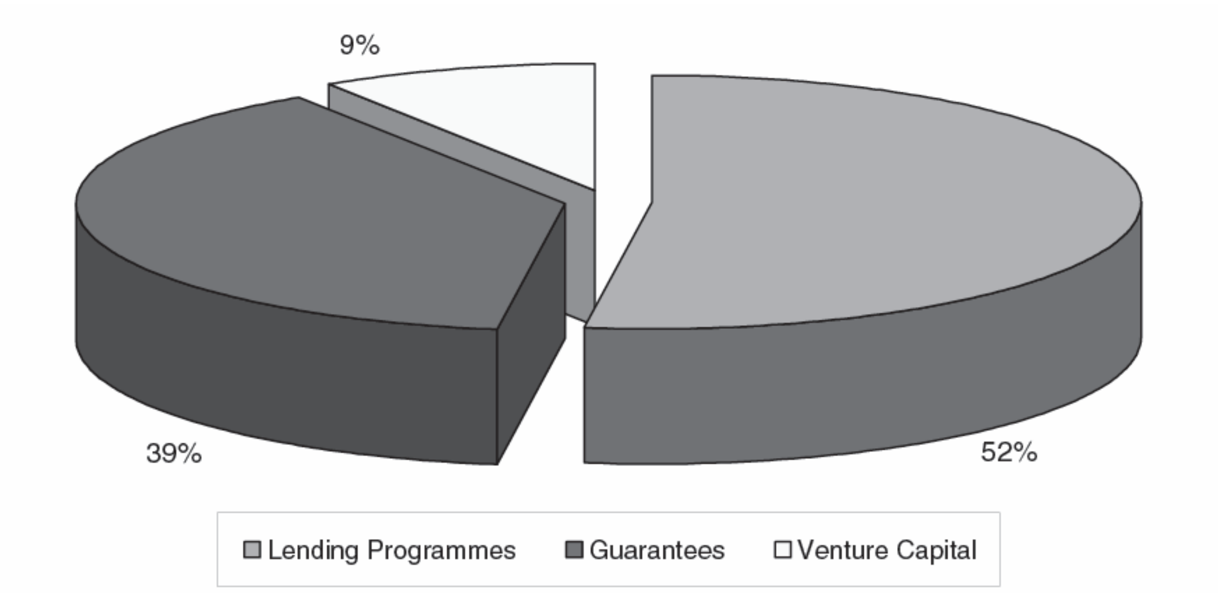


Source : EOS Gallup Europe (2005), "SME Access to Finance", Flash Eurobarometer 174, October, upon the request of the European Commission (Directorate-General "Enterprise and Industry").

SMEs can issue bonds or equities in the capital market. But it is hard for SMEs to issue bonds, because they cannot find investors interested in bonds with low credit ratings. In order to alleviate this problem, a structured financing method can be used. SMEs also have problems with equity financing. Their equities are neither liquid nor attractive to investors because they are usually not listed on exchanges. The venture capital industry is important to SME equity financing because it is specialized in this area and has techniques to deal with the risks.

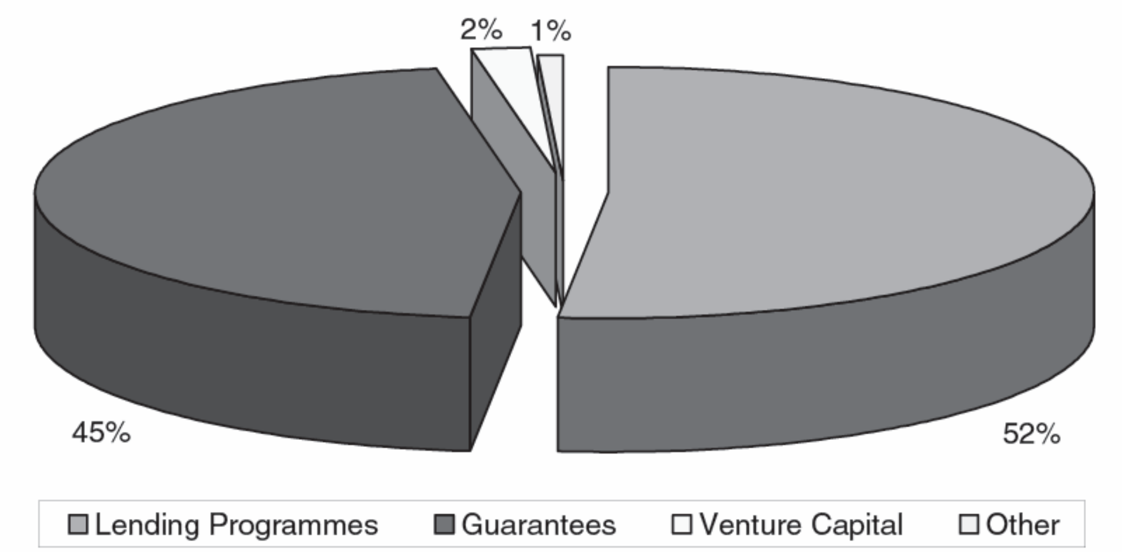
Although most OECD countries do not have a widespread SME financing gap, the OECD report says that they have problems in innovative SME financing, as they represent a higher risk than traditional SMEs or large firms. Market failure is likely in innovative SME financing when compared to other sectors, hence why government programs for equity capital are likely to be directed toward innovative SME equity financing.

<Figure II-3> OECD Countries: Government SME Financing Programs as % of Total



Source : OECD (2006), “The SME Financing Gap”

<Figure II-4> **Non-OECD Economies : Government SME Financing Programs as % of Total**



Source : OECD (2006), "The SME Financing Gap"

1. SME Financing through Government Programs and the Banking Sector

Direct intervention efforts by the government to remedy the financing gap take the form of grants, tax breaks, and the establishment of government-funded intermediaries specializing in SMEs. The most common commercial credit program initiated by the government and public sectors in many countries for SMEs includes, among others, interest subsidies, credit guarantees, insurance schemes, loan quotas, and export financing.

Currently, for most developing and developed economies, the banking sector arguably represents the most important source of external financing for SMEs. Banks offer a wide range of short, medium, and (to a lesser extent) long term loans, as well as various supplementary financing instruments, such as trade credit, export financing, factoring, and discounting.

Since advanced countries have competitive financial markets, banks have developed effective techniques to deal with SME finance. Banks in those countries find SME finance an attractive business, because they increase their revenue from fees for services, rather than from interest on loans. However, many banks in emerging markets are state-owned, and a significant share of total credit is often allocated to targeted sectors under a government program. There may also be interest rate ceilings that make it difficult to price credit to SMEs based on the risk of lending to SMEs. In addition, the banking system is under a government guarantee, because governments are reluctant to have their banks fail. Under these circumstances, it is likely that banks operate their loans to SMEs inefficiently.

Although bank financing is the most widespread funding source for SMEs, bank financing has problems during periods of high liquidity and credit risk. If a country does not have enough tools to mitigate these risks, banks are reluctant to lend to SMEs. It is likely that banks will avoid additional lending or rollover of existing loans to SMEs when these risks are prevalent. Since they do not have financial instruments such as credit derivatives to alleviate these risks, banks have no choice but to reduce lending to high risk borrowers, i.e. SMEs without enough collateral or guarantees. Hence, SMEs may not utilize bank financing in a recession, which ironically is when they need the funds the most.

In addition, prospective innovative SMEs (ISMEs) may not draw funding from banks on a regular basis if their potential is not properly evaluated. Because ISMEs usually have negative cash flows, untried business models, and high risk, traditional bank financing is of limited relevance to those companies. In this case, risk capital through equity and quasi-equity products, such as mezzanine finance and hybrid products, are more useful. Investors in these products can assume high risk, but also seek large rewards. Hence, there are limitations to ISME financing through banks, and market failure is likely in ISME financing if government intervention and deep capital markets are absent.

2. SME Financing through Capital Markets

With regard to SME financing, a move away from bank intermediation towards funding in the capital markets has long been considered a long-term objective and various efforts have been made by many countries in the region. If successful, this approach would address the chronic lack of long-term credit available to SMEs. This promising move, however, has many hurdles to overcome until it is implemented. The first hurdle is having an adequately developed capital market in terms of depth and liquidity. Only a small group of countries in the region has met this prerequisite, but their current stages of development and relative sizes vary widely, even within the group itself.

Even with a sufficient number of investors and liquidity in the capital markets readily available, there still exists a series of hurdles to be overcome in order to facilitate SMEs' financing through capital markets. First, SMEs, in essence, have relatively high credit risk. On one hand, they have high growth potential, but also are more vulnerable to sudden changes in the economic and competitive environment. Second, there exists severe information asymmetry in this segment of enterprises. In general, some degree of information asymmetry is inevitable and always exists with respect to financial industries and markets. The SMEs' case, however, is extreme. SMEs' corporate information is often nonexistent, or comes with very high access costs in many economies in the region. Third, SME financing is inherently associated with a higher unit cost when compared with that of large corporations. The relatively smaller size of funding, as well as higher information costs, lead to higher implementation costs per deal when processing finance in capital markets. A higher monitoring cost also puts an additional burden on investors once funding is closed in the market.

Therefore, government and policymakers not only have to focus on the development and growth of the capital market itself, but also search for a means to overcome the obstacles inherent in SMEs in order to facilitate active SME financing through capital markets. However, the OECD reports that lending programs currently take the largest part of all government programs for SME financing in most countries. For both bond and equity markets, providing access to credible corporate information on SMEs is an important task that will ease information asymmetry. To start, policymakers should search for a way to utilize the information about SMEs currently scattered around the banking sector, in credit guarantee schemes, and other existing government programs, as well as in common commercial credit programs. Once aggregated, this collective data base will have a higher chance of providing more credible information and easier access to potential investors. The government must take the initiative and play a major role in this data collection process, since building a SME information sharing system may not be commercially viable in the private sector. In addition, credit information on individual consumers, which is already available through the public credit registry and/or private credit bureaus, will also play a significant role in easing information asymmetry in the SME sector. The credit assessment of SMEs often heavily depends on an individual, namely the owner and/or manager of the company. This is especially common for smaller companies. In this respect, the challenge of establishing a consumer information sharing system must become a priority if such a system is not already available in the economy.

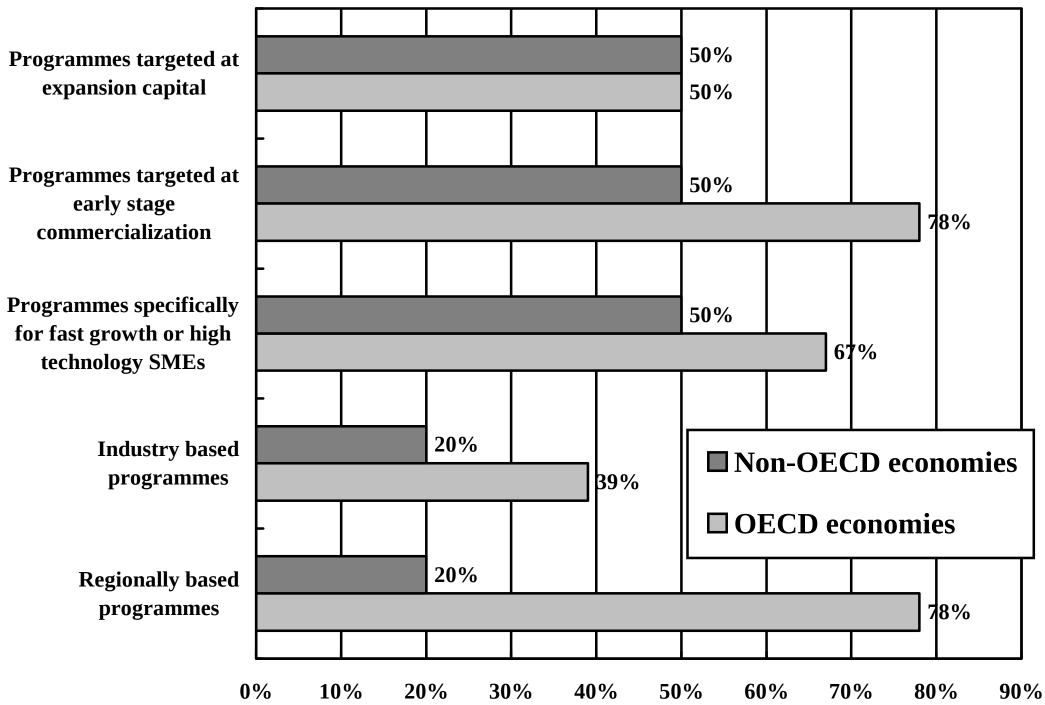
With respect to the inherently higher credit risk and transaction costs, there are several means, or combinations of means, to alleviate the problem. In the case of corporate bond issuance, pooling a group of SMEs may be a plausible solution, by lowering credit risk and transaction costs. As an individual company, a SME is exposed to high credit risk. However, once enough SMEs with various degrees of credit risk exposures to economic cycle are pooled together, the basket of SMEs as a whole may have a low enough credit risk to be attractive to debt market investors. The problem of higher transaction costs will be resolved with the sufficient size of the deal. If the deal is structured with the number of tranches with credit enhancement in the lower tranche, the base of potential investors will be broadened with different levels of risk preferences. There are many ways of providing credit enhancement to structured debt instrument deals: banks, insurance companies, other private financial institutions, and public credit guarantee companies can offer a credit line or guarantee to the lower tranche of the deal; thus, the SMEs themselves can retain the equity tranche in order to enhance the credit ratings of the higher tranches. In such structured deals, generally known as collateralized bond obligations (CBOs), the composition of portfolio companies is one of the key success factors.

Another indirect way of tapping into SME financing via the debt capital market is to liquidate bank loan assets in the market. The securitization of banks' SME loans in the capital market will, in turn, provide a larger buffer for banks to increase the amount of their loans, thus raising the total volume of funds supplied to SMEs. This asset-backed securitization, often called collateralized loan obligation (CLO), has merit to investors because they can share the monitoring cost with banks. From the banks' point of view, they can share the credit risk exposure with debt market investors.

As for the equity market, fostering venture capital and providing an incentive-compatible environment throughout the whole activity cycle of venture capitalists are the first priorities. From the perspective of a venture capitalist, identifying a company with growth potential is an important first step. During this phase, a credible information sharing system, a smoothly functioning infrastructure, and networks in the technology and business assessment industries will play critical roles. Once an equity investment is put into place, the next step for the venture capitalist is to take an active role in raising corporate value through cooperation with the management team of the company. This process of realizing corporate potential and upgrading firm value is crucial for the success of an investment. Thus, an appropriate route must be provided for the venture capitalist to participate in the management of the portfolio firm, be it through the legal and regulatory framework or the customary practices in the market. Lastly, there should be a viable number of exit strategies for the venture capitalist. Whether through an initial public offering on the stock market, acquisition by a strategic investor, or a merger among venture firms, a proven track record must be shown in the market. The more diverse exit strategies there are, the higher the probability of a venture capitalist's success. As the evidence of success accumulates, more funds will flow into the market. In sum, creating and providing a favorable environment throughout the entire investment process for a venture capitalist, from entry to exit, are the key factors to support stable growth of the venture capital market.

OECD countries have more refined or customized government programs in equity capital financing. They are more likely to target programs by region, industry, or stage of firm development than non-OECD countries.

<Figure II-5> Targeting Government Programs for Equity Capital



Source : OECD (2006), “The SME Financing Gap”

. SME Financing through the Capital Market: the Korean Experience

1. SMEs in the Korean Economy

SMEs are an economic sector whose activities have major effects on the Korean economy in terms of total number of enterprises, employment rates, and export statistics. At the end of 2005, SMEs in Korea numbered more than 30 million and accounted for 99.9% of all enterprises. With hiring by SMEs increasing with each year, they accounted for 88.1% of total employment in Korea. Exports have also steadily increased, with SMEs holding over 30% of total Korean exports, a percentage valued at $104.2 billion at the end of 2006.

<Table III-1> SMEs as a Ratio of Total Number, Employment, and Exports

(unit: %)

Year	2000	2001	2002	2003	2004	2005	2006
Number of Enterprises	99.2	99.7	99.8	99.8	99.8	99.9	N/A
Employment	80.9	84.9	86.7	87.0	86.5	88.1	N/A
Export	36.9 (29.5)	42.9 (1.7)	42.0 (5.7)	42.2 (19.6)	35.6 (10.6)	32.4 (1.9)	32.0 (13.1)

Note: ( ) indicates a rate of increase year-over-year.

Source: Small and Medium-sized Business Administration (SMBA)

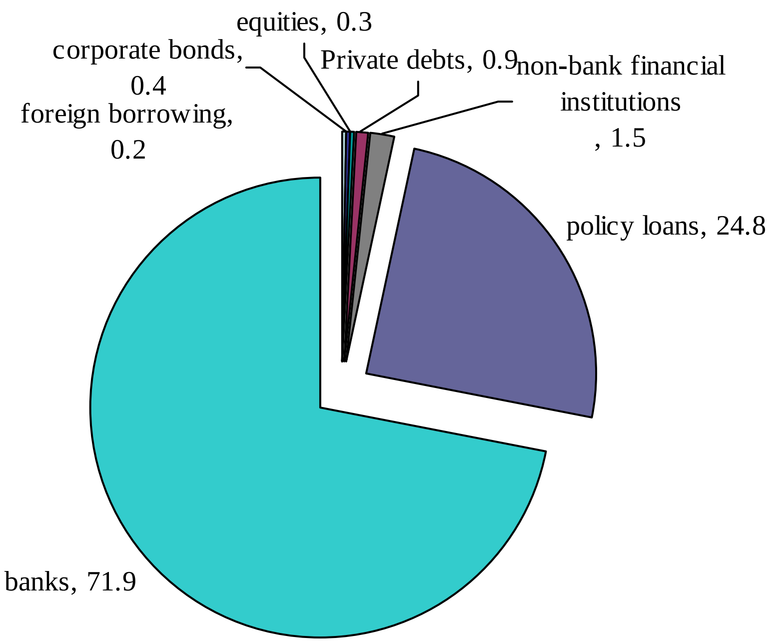
Since the Asian Financial Crisis, the Korean government has tried to pursue economic growth that is led by SMEs, rather than by large companies that have traditionally been main driving force behind Korea's economic growth. As the knowledge-based industry grows and is seen as an important industry for the next generation, SMEs' contributions to the economy are growing. In addition, SMEs have created relatively stable employment despite large companies' conservative stance in employment after the crisis. As global competition becomes more fierce, the SME is playing a more prominent role in driving further economic growth by producing new technology.

2. Overview of SME Financing in Korea

Though SMEs play an important role in the Korean economy, they often have difficulty securing financing. Reasons for this lack of funding include high transaction costs and credit risk, as well as information asymmetry and a shortage of collateral. Most Korean SMEs heavily depend on bank loans for more than 70% of their total funding. While bank loans have steadily increased, financing from the capital market has decreased, because SMEs can hardly acquire investment-grade credit ratings that satisfy investors' demands. SMEs use policy funding and credit guarantee programs as their major financing sources, usually with the share of credit guarantee programs at around 20% of total funding.

<Figure III-1> Sources of Financing for Korean SMEs in the Manufacturing Sector

(unit : %)



Source: Korea Federation of Small and Medium Business

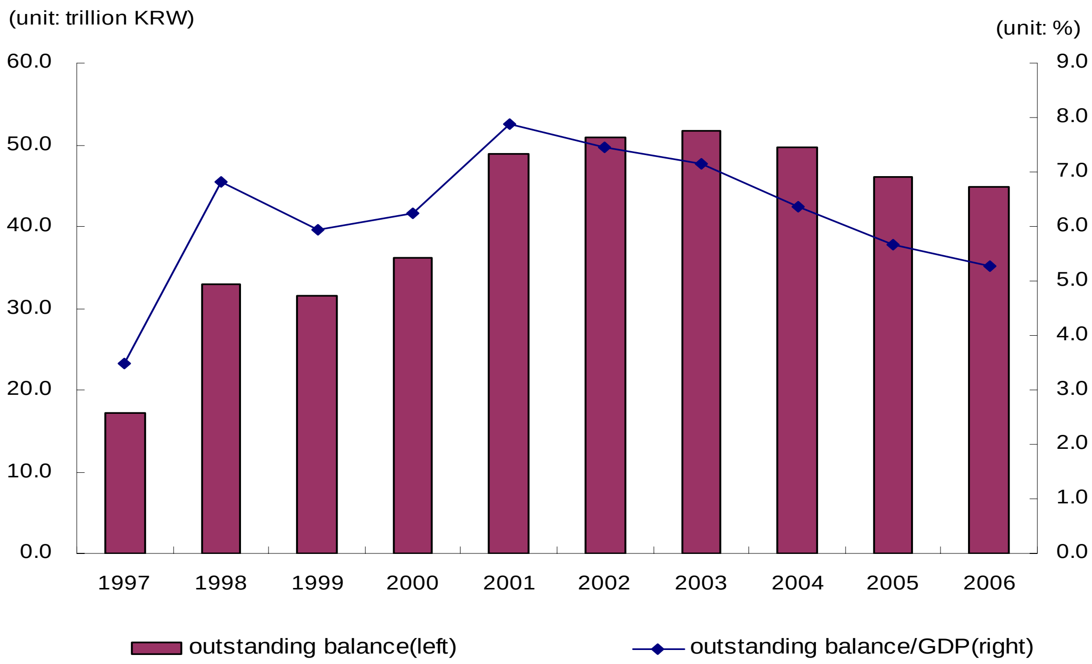
2-1. Public Support for SME Financing

There are two representative government programs that support SME financing: credit guarantee schemes and policy loans. Credit guarantee schemes have been used to alleviate credit risk imposed on loans to SMEs. The credit guarantee program in Korea began with the establishment of the Korea Credit Guarantee Fund (KODIT hereafter) in 1976 in order to reduce the possibility of market failure in SME financing due to information asymmetry, high transaction costs, and lack of collateral. Currently, there are three credit guarantee agencies in Korea: KODIT, the Korea

Technology Credit Guarantee Fund (KIBO hereafter), and the Local Credit Guarantee Foundations (LCGF). Prospective SMEs can get payment guarantees from these agencies, which provide them with access to bank loans. Credit guarantees had increased significantly in late 1990s and early 2000s to overcome the credit squeeze and economic recession due to the Asian Financial Crisis. The total outstanding balance of credit guarantees amounted to 45 trillion won in 2006, up from 17 trillion won in 1997. In this respect, it seems that credit guarantees were used to stimulate SME financing during an economic downturn.

However, some credit guarantees overlapped between KODIT and KIBO, which accounted for most (about 91%) of the total outstanding balance of credit guarantees in Korea. In addition, although they are supposed to be efficiently allocated to SMEs with high-growth potential but no collateral, there may be an excessive supply of credit guarantees to SMEs with relatively high credit ratings. For these reasons, the Korean government does not tend to increase the size of credit guarantees indefinitely. After a technology assessment by KIBO, credit guarantees are channeled into early-stage venture companies and Inno-biz, since SMEs with high credit ratings can easily draw loans from banks. Due to the government's emphasis on the efficient allocation rather than the size of credit guarantees, the amount of recent outstanding balance of credit guarantees is decreasing.

<Figure III-2> Outstanding Balances of Credit Guarantees



Source: National Assembly Budget Office

Another government program to help SME financing is policy loans. Funded by the central and local governments, these loans are provided to SMEs at interest rates lower than the market rate through banks or Small Business Corporations (SBCs). The objectives of this program are two-fold. The first is to promote equipment investment, restructuring, and commercialization of new technologies. The second is to assist start-up activities, most of which are hardly financed through private market arrangements because the anticipated returns do not meet market expectations. Although the anticipated returns are low, the program is justified by the social and economic benefits from the loans. There are various government sectors that raise funds for SME policy loans. The Small and Medium Business Administration (SMBA), among others, is the largest funding source for these loans. Policy loans are allocated to SMEs if they meet the requirements for the loans. For example, loans from the Ministry of Information and Communication are only allowed to fund R&D for technology commercialization purposes in the multimedia, communication, semiconductor, and other IT industries.

<Table III-2> Government Sectors' Assistance to SME Funding

(unit: billion won, %)

	2003		2004		2005		2006	
	amount	share	amount	share	amount	share	amount	share
Small and Medium Business Administration	3,715	57.3	3,589	58.9	3,785	57.3	3,617	59.9
Other Ministries	2,767	42.7	2,503	41.1	2,823	42.7	2,425	40.1

Note: Other Ministries include the Ministry of Information and Communication, Ministry of Commerce, Industry and Energy, Ministry of Labor, etc.

Source: Special Committee of SMEs.

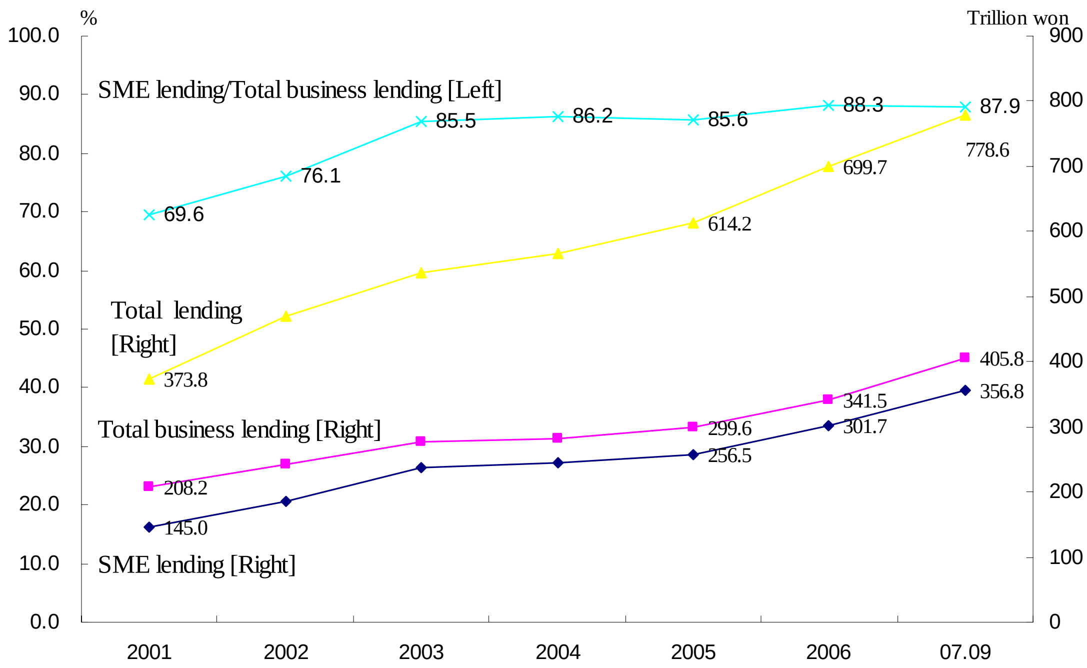
The banks that are able to provide policy loans are chosen by fair competition. However, there may be several banks that can manage policy loans with the same purpose. In this case, SMEs choose to get their policy loans from a bank whose requirements they meet. Currently, the Industrial Bank of Korea (IBK), a government-owned bank, is the largest channel for providing policy loans. IBK is a bank specializing in SME financing whose ratio of SME loans to total loans is higher than 80%. Since the interest margin of policy loans is low and all the costs imposed on the policy loans are taken on by banks, commercial banks do not actively participate in policy loan markets. However, IBK actively participates in the market due to their large customer base, their many years of expertise in dealing with policy loans, and the benefits from cross-selling even with the low margins and high costs of policy loans.

2-2. SME Financing through Banks

Banks significantly extended their lending to SMEs after the Asian Financial Crisis, such that the total amount of SME lending was 357 trillion won in September 2007, more than double that of 145 trillion won in 2001. Due to the decrease of large companies' demand for bank loans, banks competitively extended their lending to SMEs. The ratio of SME lending to total business lending was 87.9% as of September of 2007, up from 69.6% in 2001.

The total sales revenue of SMEs has a positive relationship with the total loans to SMEs. The ratio of SME loans to SME sales revenues has increased from 70% in 2000 to 91% in 2006. Notably, total loans to SMEs have grown faster than total sales revenues of SMEs. The recent growth of SME lending is mainly due to the lowered delinquency ratio in SME lending, enhanced risk management techniques, and the spillover effect from decreased household loans.

<Figure III-3> SME Financing through Banks



Source: Financial Supervisory Service

With the increase of SME lending by banks, SMEs, especially Small Office Home Offices (SOHOs), can get bank loans easier than before. This is because banks have developed techniques to choose SMEs with low risk. However, as risk management for SME loans is stressed, ISMEs, especially those in the early stages, may not benefit from the increase of SME lending. This is because there is still uncertainty associated with these companies, and banks often cannot diversify the risks associated with them.

2-3. SME Financing through Stock and Bond Markets

Generally speaking, SMEs' funding from capital markets in Korea is currently not active. Since 2001, the total amount of large companies and SMEs' funding through stock and bond markets has decreased. Large firms especially did not actively issue stocks or bonds over this same period. Despite of the downward trend of large companies' funding through capital markets, SMEs' funding size takes only 12.7% of the total size. The share of SMEs' funding through capital markets rises to 13.7% from January to November 2007, but this is still small in terms of size.

<Table III-3> SME Funding through Stock and Bond Markets in Korea

(unit: billion won, %)

		2000	2001	2002	2003	2004	2005	2006	2007 1~11
Equity	Large Companies	8,006 (55.8)	9,074 (74.5)	6,885 (74.3)	8,642 (77.7)	6,508 (78.6)	3,775 (55.8)	3,714 (57.1)	10,806 (72.1)
	SMEs	6,343 (44.2)	3,098 (25.5)	2,379 (25.7)	2,475 (22.3)	1,771 (21.4)	2,988 (44.2)	2,785 (42.9)	4,184 (27.9)
	Total	14,349 (100.0)	12,172 (100.0)	9,264 (100.0)	11,117 (100.0)	8,279 (100.0)	6,763 (100.0)	6,499 (100.0)	14,990 (100.0)
Corporate Bond	Large Companies	17,268 (97.7)	39,699 (99.1)	23,447 (98.2)	18,251 (99.5)	26,109 (99.6)	21,930 (99.0)	16,963 (98.9)	19,670 (96.7)
	SMEs	400 (2.3)	354 (0.9)	418 (1.8)	89 (0.5)	98 (0.4)	225 (1.0)	197 (1.1)	669 (3.3)
	Total	17,668 (100.0)	40,052 (100.0)	23,866 (100.0)	18,340 (100.0)	26,207 (100.0)	22,155 (100.0)	17,160 (100.0)	20,339 (100.0)

Note: ( ) indicates share out of the total fundraising through stock or bond market
Source: Financial Supervisory Service

The share of SMEs' funding in the stock market increased significantly in 2005, reaching 44.2% from 21.4% in 2004. However, this increase is mainly accounted for by the significant decrease of large companies' funding through the stock market. Hence, there has been no significant increase in the absolute size of SMEs' funding through the stock market. Interestingly, the reverse situation occurred in 2007. The share of SMEs' funding out of total funding through the stock market decreased from 42.9% at the end of 2006 to 27.9% over the period from January to November 2007. Although the share of SME financing through the stock market has recently decreased, the absolute size increased significantly from 2.785 trillion won in 2006 to 4.184 trillion won in 2007. SMEs' financing through the stock market peaked in 2000, recording at 6.343 trillion won, but SMEs' stock issues have decreased due to the increased credit risk from the venture bubble bursting at the end of 2000.

SMEs have a negligible role in the Korean corporate bond market. The size of total corporate bond issues has decreased 57% from 2001, and the share of SMEs' financing in the bond market was only 1.1% at the end of 2006. Although the proportion has increased to 3.3% from January to November of 2007, the size is still negligible. Another reason behind the decrease in SMEs' financing in the bond market is the inefficiency in trading from the total size of bond issues. In 2006, the usual trading unit in the bond market was 10 billion won, but the total size of a SME's bond issue is about 10 billion won. A trader must perform a relatively large number of trades in order to have certain amount of SME bonds, because they are issued in smaller units. Hence, there is no incentive to hold SME bonds, ceteris paribus. On the supply side, investment-grade SMEs have not had difficulty recently in drawing money from banks. Since there has been competition for lending between banks, they can finance at low interest rates from banks. Another reason why SMEs have difficulties in the corporate bond market is the inactive high-yield bond market. Most SME bonds are high-yield bonds with high credit risk; hence SMEs' financing from the bond market is not expected to be active in the future unless there is an active high-yield bond market.

2-4. Active Utilization of the P-CBO Program

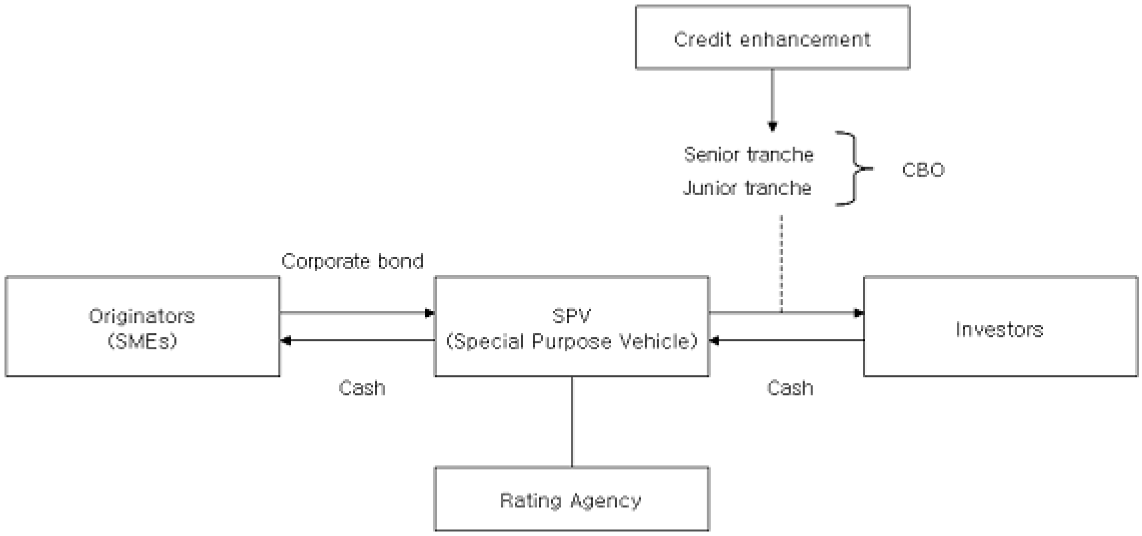
1) Background

Corporate bonds were issued heavily before and right after the financial crisis in Korea in 1997, and these bonds started to mature from the second half of 2000. But only a small number of large corporations were able to raise funds through issuing corporate bonds and commercial paper. The post-crisis capital market was paralyzed because any trust between investors in a volatile corporate bond market was virtually eliminated. Banks undergoing government-led restructuring processes at the time were also hesitant to make new loans to the corporate sector. As a result, concerns were raised over the possibility of companies who were rolling over their debt going bankrupt and creating another financial crisis. In accordance with the tightening money and capital markets, the Korean government introduced the primary collateralized bond obligation (P-CBO) program in order to smooth out liquidity constraints and support SMEs. Started in 1999, the P-CBO program was expanded to include venture firms in 2001.

2) Basic Scheme of P-CBO

A P-CBO is a type of asset-backed security (ABS) with newly-issued corporate bonds as the underlying asset. SMEs issue new corporate bonds and sell them to a special purpose vehicle (SPV) (or special purpose company (SPC)) as an underlying asset. The SPV then issues the CBO based on the SMEs' newly-issued corporate bonds, and sells the CBO to investors in the market. The SPV has a contract with the originator to manage its own assets. Credit enhancement is provided through various channels, including banks and credit guarantee funds. The SPV issues both senior and junior tranche bonds, with senior tranche usually at AAA grade.

<Figure III-4> Basic Structure of P-CBO Issuance



The process of a P-CBO program is as follows: 1) Selection of company and underlying assets; 2) Credit rating and enhancement; 3) Selection of SPV's trustee and reinforcement of liquidity; 4) Bond redemption.

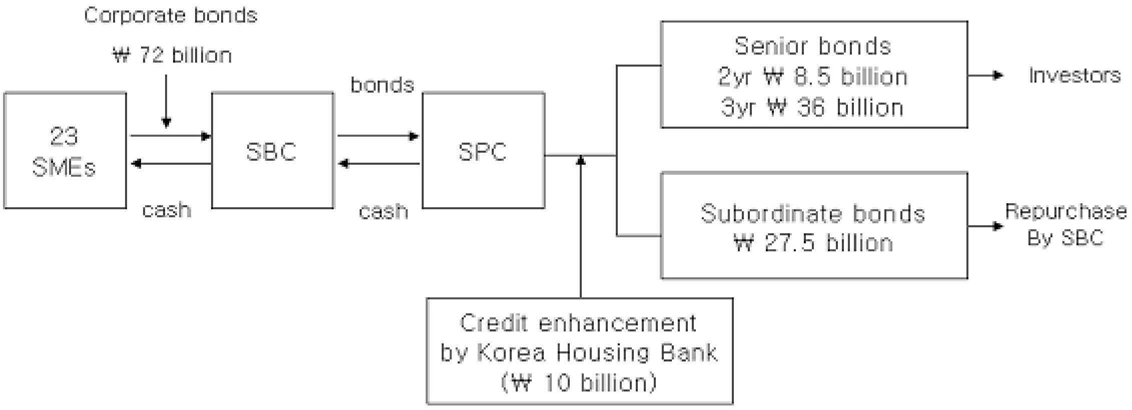
The first stage, selection of a company, is very important because of its relation to credit rating. The credit risk of the entire portfolio depends on the underlying assets that comprise the portfolio. Second, the credit rating is based on risk of default and cash flow of the portfolio. Credit enhancement is provided mainly by SBC, banks, or credit guarantee funds such as KODIT and KIBO. Without such credit enhancement, the amount of senior bonds that can be issued with AAA ratings would be limited to only small portion of the total value of the underlying assets, usually 40-70% of the total value, depending on the average credit quality of the pool. However, with credit enhancement, this proportion jumps substantially to include a major part (e.g. over 90%) of the total value of the underlying assets. Third, a trustee of the SPV will reinforce liquidity and supervise cash flow to protect the investors. Finally, the process of the P-CBO scheme is over when the issued bonds are redeemed.

P-CBOs offer more fundraising opportunities to SMEs that have low credit ratings. In fact, the distinguishing feature of the P-CBO program lies in facilitating the issuance of corporate bonds to help finance SMEs. Because P-CBOs pool bonds with different levels of risk, the overall risk of default decreases. Because P-CBOs are issued through strict surveillance by credit rating agencies, they are a relatively safe and fairly attractive investment. Furthermore, P-CBOs can offer higher yields than general corporate bonds to mezzanine tranche investors. In short, P-CBOs can be a useful instrument that can resolve the credit mismatch problem that exist between investors and SMEs, thus filling the financing gap of SMEs.

3) Variations of P-CBO

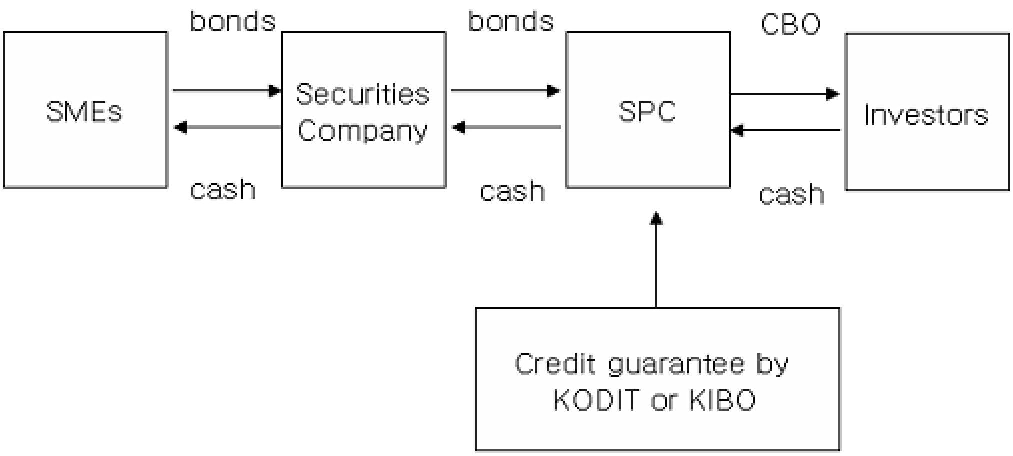
The first P-CBO program was launched by SBC in 1999. SBC pooled 72 billion won worth of new corporate bonds issued by 23 SMEs. Credit enhancement was provided by the Korea Housing Bank in the form of liquidity facilities. SBC provided additional enhancement by repurchasing the subordinate junior tranche in the amount of 27.5 billion won. The senior tranche, worth 44.5 billion won, was sold to investors in the market.

<Figure III-5> Basic Scheme of First P-CBO Program by SBC



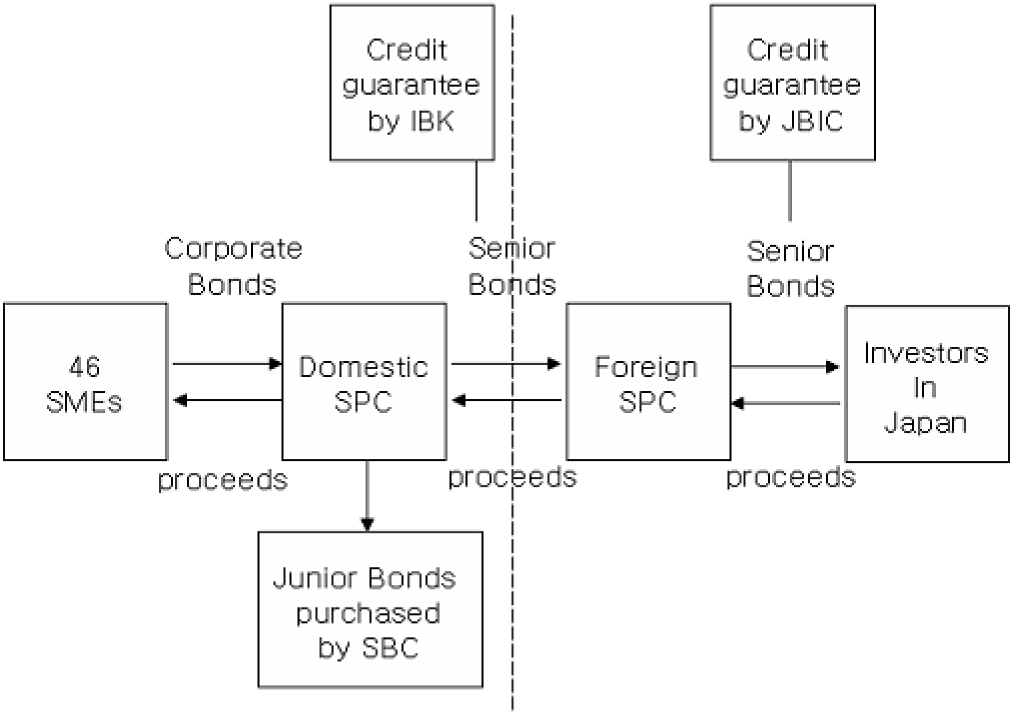
In July 2000, the Korean government introduced a special guarantee program applicable to P-CBO issuance and started to use credit guarantee funds, namely KODIT and KIBO. With credit enhancement in the form of credit guarantees provided by KODIT or KIBO, the percentage of total value in the senior tranche of the P-CBO deal went up to 93-97%, thus maximizing funding efficiency of the program. Institutional investors prefer P-CBOs with a credit guarantee from KODIT or KIBO because the credit ratings of guaranteed bonds are more stable than those without guarantees.

<Figure III-6>　P-CBO Program with Credit Guarantee



In 2004, SBC, in cooperation with a domestic security company, led an issuance of cross-border P-CBO. 46 Korean SMEs participated in the P-CBO issuance in Japan in the amount of 10 billion yen. Credit guarantees were provided by the Industrial Bank of Korea (IBK) and the Japan Bank for International Cooperation (JBIC). A dual SPC structure was used and the subordinate tranche of the CBO issued by the domestic SPC was purchased by SBC, providing additional credit enhancement. The senior tranche of the CBO was acquired by the foreign SPC established in Japan and then distributed to investors in the Japanese market.

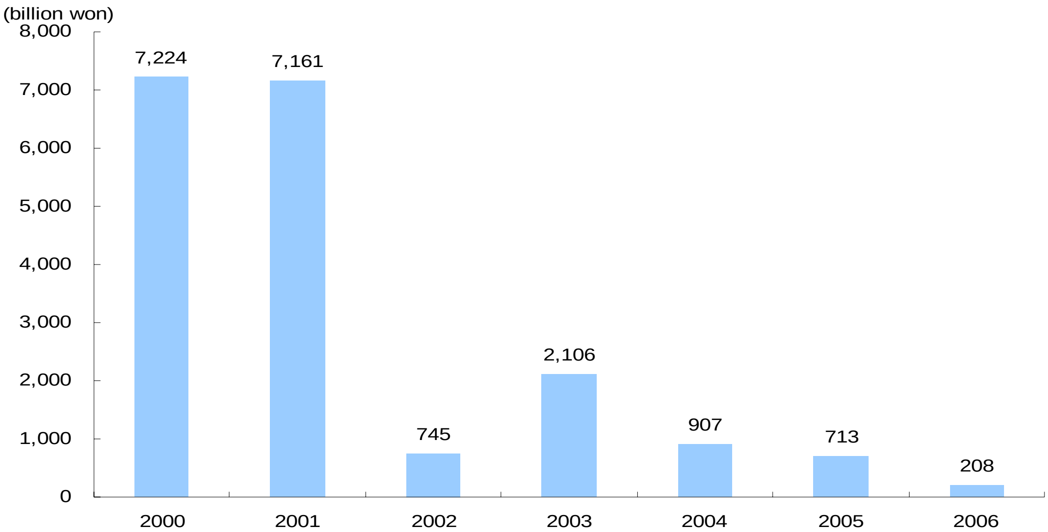
<Figure III-7> Cross-Border P-CBO Issuance with Dual SPCs Structure



4) Current Status of P-CBO in Korea

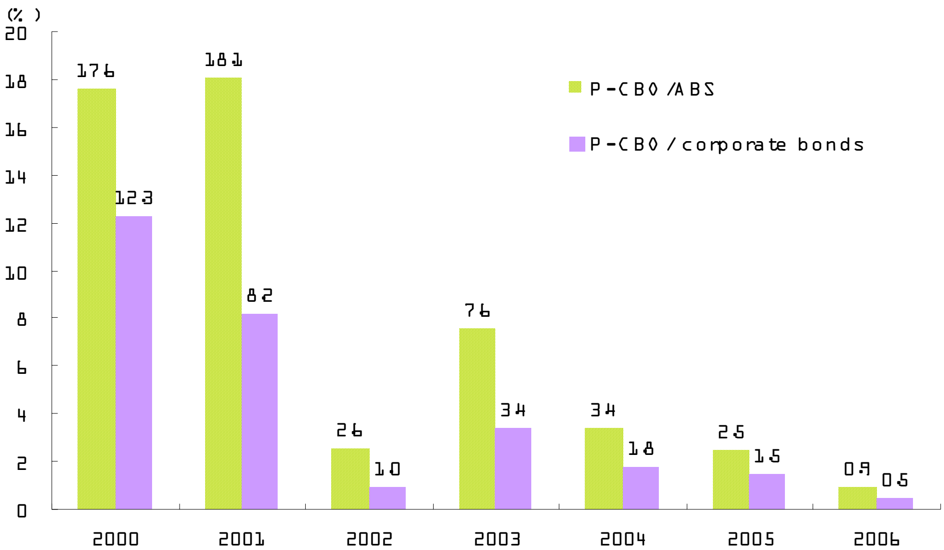
In August 2000, the first KODIT guaranteed P-CBO was issued, amounting to 1.55 trillion won. Pooling 54 SMEs, credit ratings of these companies ranged from BBB+ to BB-. Senior bonds of higher than AA grade accounted for 97% of the total amount of issuances, or 1.5 trillion won. In order to stabilize the widening financing gap in 2000 and 2001, P-CBOs were issued in the amounts of 7.22 and 7.16 trillion won, respectively. But as the corporate bond market stabilizes, the amount of P-CBO issuances has been decreasing. Also, the ratio of P-CBO to total corporate bonds and to ABS has fallen. In the early stages, people insisted that government intervention could distort the market, but the P-CBO program has contributed to the economic rebound of many companies.

<Figure III-8>　Total Amount of P-CBO Issuances



Source: Financial Supervisory Service.

<Figure III-9>　Ratio of P-CBO Issuances to Corporate Bonds and to ABS



Source: Financial Supervisory Service.

According to a report by KODIT, the P-CBO program supplied a total of 17.334

trillion won to 1,865 companies during the period from 2000 to 2006, of which, 2.23 trillion won was provided to 180 SMEs. Since January 2002, KODIT has only supported companies applying rollover.

<Table III-4> P-CBO Issuances Guaranteed by KODIT

(unit: billion won)

	P-CBO Issuances		Amount Guaranteed by KODIT
	Case	Amount	
2000	21	6,419	2,313
2001	28	8,210	5,053
2002	9	851	657
2003	8	1,266	1,227
2004	4	210	215
2005	3	295	296
2006	-	84	79
Total	73	17,334	9,834

Source: KODIT.

After the introduction of the P-CBO program, companies with poor credit ratings (below BBB- grade) can issue corporate bonds through capital markets. As a result, companies are able to cut down on expenditures for financing and temporarily smooth out liquidity constraints. As a study by KODIT has shown, when sorted by credit rating, the “sub-investment grade” groups' ratio of P-CBO issuance during 2000-2006 was 46.8%, a level similar to that of the “investment grade” group.

<Table III-5> P-CBO Issuance by Investment and Sub-investment Grade Groups (2000-2006)

(unit: billion won)

	Investment Grade	Sub-Investment Grade	Total
Amount (Ratio)	9,253 (53.2%)	8,109 (46.8%)	17,334 (100.0%)

Source: KODIT.

2-5. Venture Capital in Korea

1) Historical Overview of Venture Capital Industry in Korea

Established in 1974, the KIBO Technology Advancing Capital Corporation (KTAC) is Korea’s first venture capital company. While not actively involved in the venture capital market, the KTAC had its start commercializing the research products of the Korea Institute of Science and Technology (KIST). However, as the role of technology became more prominent in economies worldwide in the early 1980s, the Korean venture capital industry became much more active. As a result, the Korean government established the Korea Technology Development Corporation (KTDC) in 1981 to meet this growing need. This move was then followed by cooperation between the Korean government, the International Financing Corporation, the Asian Development Bank, and various Korean investment companies to co-establish the Korea Development Investment Corporation (KDIC) in 1982. Two years later, the Korea Development Bank created the Korea Technology and Finance Company (KTFC), which was renamed Korea Technology and Banking (KTB) in 1992, later merging into the Korea Industry Leasing Company in 1993.

After this initial stage of growth in the early 1980s, the Korean venture capital industry grew more quickly in the mid-1980s, when the “Small and Medium Enterprise Start-Up Supporting Law” and “New-technology Business Financing Supporting Law” were put into effect in May and December 1986, respectively. From these two pieces of legislation, a dichotomy in Korean venture capital companies was born: small and medium enterprise start-up financing companies (SMESFCs), established by the “Small and Medium Enterprise Start-Up Supporting Law” and new-technology business financing companies (NBFCs), based on the “New-Technology Business Financing Supporting Law.” Venture capital companies usually invest in companies by making an investment fund and then assuming a partnership role over the funds. Currently, the main resources for venture investment funds are the government, pension funds, financial companies, and private companies.

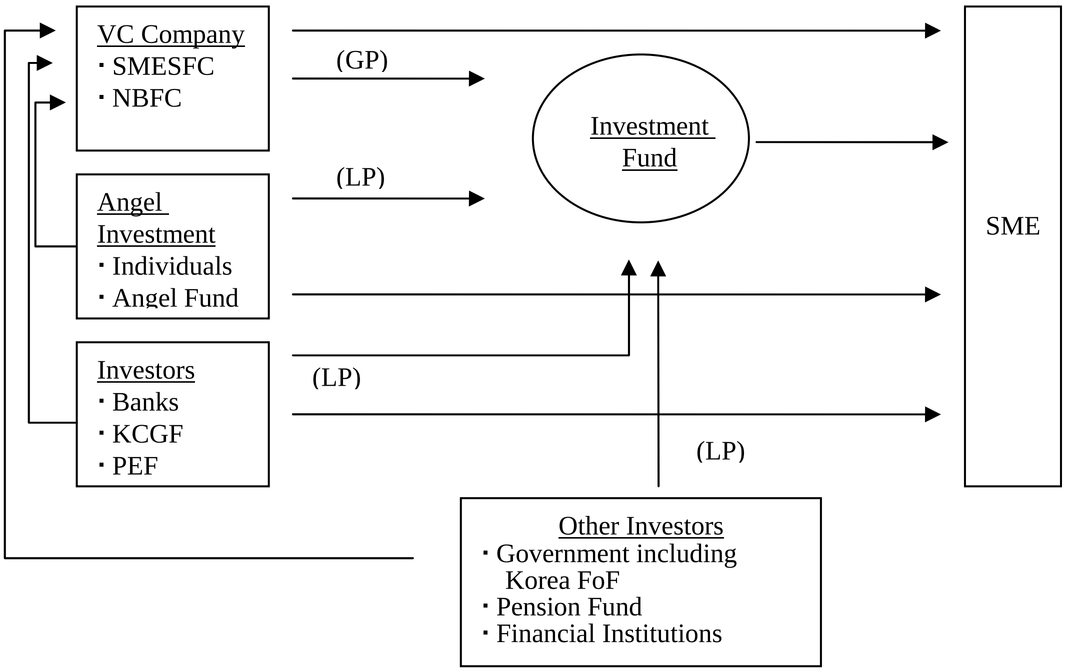
The second stage of the venture capital industry’s development began with the aforementioned laws and the birth of an easily accessible market for unlisted stocks in April 1987. This market became the Korea Association of Securities Dealers Automated Quotation (KOSDAQ) in 1996, which has provided venture firms with liquidity for their stocks. It has also provided venture capital companies with an exit strategy from their equity investments.

The Korean government, in need of a recovery after the Asian Financial Crisis, realized the importance of information technology and thus introduced the “Special Measures Law for Fostering Venture Businesses”, acknowledging the importance of venture firms in driving economic growth. The law provides certified venture firms with various benefits such as tax exemptions, credit guarantees, and policy loans. Fortunately, the Korean government’s effort to vitalize this sector coincided with the worldwide IT boom. Investment by venture capital firms increased dramatically until the venture bubble burst in 2000. New investment in venture companies through venture capital firms and investment funds amounted to more than 2 trillion won in 2000. The venture capital industry then saw a decline in investment until the government announced its "Fostering Venture Companies" policy in December 2004. The policy abolished the ceiling on performance fees to general partners (previously at 20%) and established the Korea Fund of Funds (KFoF). When the policy was announced, new investment totaled 777 billion won. Since the policy's announcement, new investment in venture capital companies and venture investment funds has steadily increased, reaching more than 1 trillion won in 2006 (for the first time since the venture bubble had burst).

2) Current Status of Venture Investment by Venture Capital Companies and Their Funds

Venture investment consists of three stages: fundraising, investment, and exit. Most investors invest in SMEs directly or indirectly through investment funds made by venture capital companies. In the case of indirect investment, a venture capital company makes a venture investment fund, and then operates the fund as a general partner (GP). Other investors can participate in the venture investment fund as limited partners (LPs). With the funds raised, the GP manages the fund and performs the investment. When a venture investment accomplishes its purpose, an initial public offering (IPO) in the stock market and mergers and acquisitions (M&A) are most widely used exit methods.

<Figure III-10> Structure of Equity Investment to SMEs



(1) Fundraising Stage

As mentioned earlier, the central and local governments in Korea provide the capital for SMESFCs' funds. They are the largest investors in SMESFCs' fundraising, contributing 24.4% of the total fundraising, while other business entities come in second, with 20% of the total fundraising. Compared to the U.S. and Europe, where pension funds and institutional investors take the largest share of total investment in venture companies, the government plays a larger role in the Korean venture capital market. The lack of institutional investors' is partly due to legal restrictions on banks, insurance companies, and mutual savings banks providing capital to venture investment funds. Banks and insurance companies could not provide more than 15% of the capital for a venture investment fund without the Financial Supervisory Service's permission. Additionally, mutual savings banks were prohibited from investing in these funds.

<Table III-6> Composition of Investors to SMESFCs' Investment Funds in 2006

Central & Local Governments	Business	Institutional Investors	SMESFCs	Pension Funds	Individuals	Foreigners
24.4%	20.0%	17.1%	14.9%	12.1%	6.8%	4.7%

Source: The Korea Venture Capital Associations.

In theory, if institutional investors, such as banks and insurance companies, were able to actively provide capital to venture funds, then soundness in the venture capital market would be enhanced, because institutional investors will also be monitoring the fund's management. This provides an extra layer of supervision and protection to the market. The situation is mutually beneficial; the venture capital market gains another reliable source of investment, and institutional investors have a high-risk, high-return investment instrument. Fortunately, the Korean government recently announced the removal of the aforementioned restrictions, thus opening the market to increased investment from banks and insurance companies. Mutual savings banks are also now allowed to invest to a limited extent.

(2) Investment Stage

Since the venture bubble burst, the number of SMESFCs has fallen from 147 in 2000 to 99 in September 2007. When the government announced its "Fostering Venture Companies" drive in 2004, there were 105 SMESFCs. Although the number of companies has declined, their volume and new investment in 2006 increased 31.7% when compared to 2004. Many venture capital companies simply expanded without serious direction until the bubble burst, leaving many venture companies in trouble. Even into 2004, the number of SMESFCs continued to decline, recording losses of 205 billion won. However, the market recovery in 2005 turned the SMESFCs' record losses into a net surplus of 80.2 billion won.

<Table III-7> New Investment of Venture Capital Companies and Their Venture Investment Funds

(billion won)

	2002	2003	2004	2005	2006
SMESFC and their funds	617.7	630.6	604.4	757.3	733.3
NBFC and their funds	222.4	156.4	172.6	200.4	289.8
Total	840.1	787.0	777.0	957.7	1,023.1

Source: Korean Small and Medium Business Administration.

The average size of SMESFC funds is relatively small: 12.8 billion won, versus $82.5 million in the U.S. Recently, the average size of these funds has been growing. The efficiency of a fund's operation is directly proportional to its size. Furthermore, conflicts of interest can be avoided when the size of the fund is larger. When size of the funds is small, a fund manager may have a conflict of interest in decision making, because he or she may manage several funds at the same time.

<Table III-8> Comparison of Average Size of SMESFC Funds and U.S. Funds

	2002	2003	2004	2005	2002~2006
Korea(bil. won)	10.48	15.37	10.8	15.4	12.8
U.S. ($ mil)	22.6	75.0	89.0	138.5	82.5

Note: $1 = 929.6 won as of November 30, 2007.

Source: Korean Small and Medium Business Administration.

The portion of SMESFCs and their funds' investment in early stage companies (fewer than three years) increased during 2005-2006, while those in the expansion stage (three to seven years) declined over the same period. The increase in funding to these nascent companies further propels the government's effort to support those companies that are the most likely to fail without government intervention. Because the venture capital market is in recovery in Korea, investment in early-stage companies is not likely to be large due to the high credit risk associated with these companies. In addition, the exit channel of venture capital companies in Korea is limited to IPOs on the KOSDAQ. Since it takes long time until an early stage venture company has a successful IPO, venture capital companies hesitate to invest in these companies, choosing instead to invest in expanding or later-stage companies that are closer to an IPO (and also have a clearer picture of their technology and profitability). For this reason, investment in expanding and later-stage companies is doing well without government intervention.

<Table III-9> Share of Investment in Early, Expansion, and Later Stage Venture Companies

	2005		2006	
	Volume (bil. won)	Share (%)	Volume (bil. won)	Share (%)
Early Stage (< 3 years)	197.2	26.1	222.4	30.3
Expansion Stage (3-7 years)	416.2	54.9	372.1	50.8
Later Stage (> 7 years)	143.9	19.0	138.8	18.9
Total	757.3	100.0	733.3	100.0

Source: The Korea Venture Capital Associations.

(3) Exit Stage

The KOSDAQ has been a key factor in the success of venture capital companies, as it is the main exit channel for investment. M&As are common in the U.S., where almost 70% of venture investment chooses M&A as its exit method, while the remaining 30% chooses to pursue an IPO. In Korea, 90% of venture capital investment depends on IPOs on the KOSDAQ, and M&As take only 10%. The number of IPOs significantly decreased when the KOSDAQ itself started to decline. With the government's effort to revitalize venture companies and replenish liquidity, investors' market expectations were positive, and the KOSDAQ rebounded in 2005. Although the number of IPOs increased in 2005 because of this recovery, it is still far below that of the early 2000s.

IPOs of venture firms with venture capital investment make up the majority of all IPOs on the KOSDAQ. The ratio of venture firms' IPOs with venture capital investment to total venture firms' IPOs has continuously increased to about 81% in 2007, from 50.5% in 2002. This means that venture capital companies are able to choose promising venture firms and are becoming instrumental in venture companies' success as fund providers. As the ratio increases, the venture capital market has become more vital to the growth of venture firms.

<Table III-10> KOSDAQ Market and Venture Capital

	2001	2002	2003	2004	2005	2006	2007.9
Average KOSDAQ Index (points)	711.3	634.6	452.9	392.0	537.5	624.1	712.2
# of listed companies in KOSDAQ	721	843	879	890	918	963	998
# of IPOs in KOSDAQ	171	153	71	52	70	56	41
# of venture firms' IPOs in KOSDAQ (A)	134	105	58	37	61	43	32
# of venture firms' IPOs with venture capital investment (B)	73	53	36	28	49	35	26
Ratio (B/A) (%)	54.5	50.5	62.1	75.7	80.3	81.4	81.3

Source: The Korea Exchange.

From startup to IPO, the average timespan for a venture firm with venture capital investment is 7.9 years. Firms without venture capital investment take approximately 11.5 years until their IPOs. This means that venture capital companies deliberately sought out fast-growing venture firms as a target for investment. Their ability to select companies with high growth potential had often been brought into question before 2002, because they had experienced huge losses during the deep recession of the venture capital market.

<Table III-11> Average Years Spent until IPO

	2004	2005	2006
Venture Firms with Venture Capital Investment	7.2	7.6	7.9
Venture Firms without Venture Capital Investment	13.8	12.4	11.5
All IPO firms	9.3	9.0	9.0

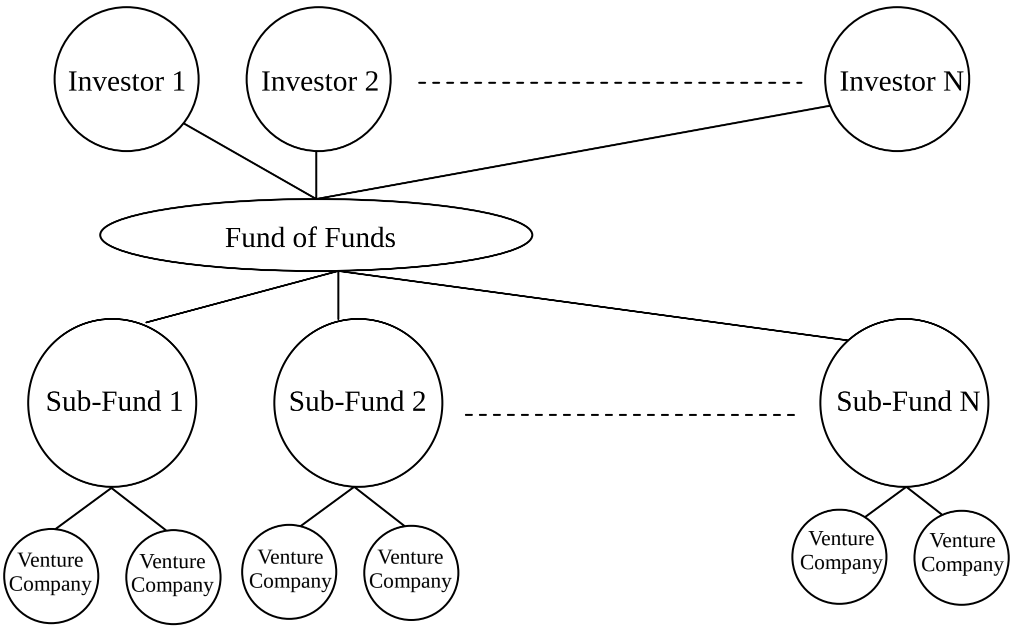
Source: Korean Small and Medium Business Administration.

The venture capital market is becoming more transparent as it recovers from its deep recession. Furthermore, this alternative market will attract more attention as a high-risk, high-return investment instrument as overall market conditions improve.

3) Korea Fund of Funds

The Korean government used to directly invest in venture investment funds before the government's "Fostering Venture Companies" drive was announced in 2004. The government was worried about diminishing venture capital investment, and realized that many venture funds were dissolved from 2004 to 2005. In addition, the government's investment resources were quite decentralized, with various government bodies administering different parts of the process. The government needed a stable and unified source of venture investment. As a result, the Korea Fund of Funds (KFoF) was established in 2005. In contrast with the previous system, where the government directly chose the recipient companies as well as determined the amount of funds, the fund of funds (FoF) system allows a fund manager to evaluate, select, and distribute capital to a number of funds.

<Figure III-11> Structure of Fund of Funds

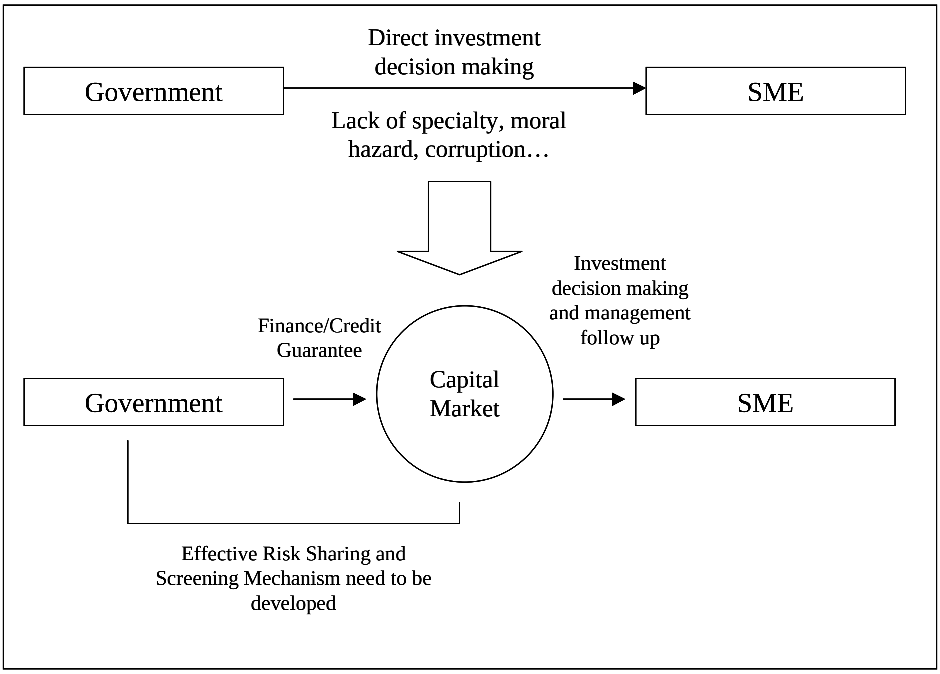


The FoF structure has four advantages over the previous system. First, the scheme meets public interest and operates more efficiently. Since the resources of each government sector are combined and managed by an experienced manager, investment tends to be more profitable and better managed than when under government control. However, the KFoF is not completely independent from government influence; since the KFoF was created under a revised "Special Measures Law for Fostering Venture Businesses," it is a public fund whose capital is raised mainly by the government. As an organization with some government ties, the KFoF should allocate a portion of its assets to sub-funds for public purposes. For example, it can allocate a large portion of its assets to sub-funds that focus on investment in early-stage venture firms that have not attracted private venture capital companies.

Second, the fund may protect the venture capital market when the economy is in recession. By nature, venture capital companies search for high-risk, but high-return investment opportunities. When risks are prevalent in the market, venture capital firms, like most investors, will pursue more relatively stable investments. In this case, if there is herding behavior in certain sectors with good profit expectations or other benefits, this fund can instead support other growing sectors important for future economic growth. Therefore, the KFoF can play a role in revitalizing the market during times of economic contraction.

Third, the venture capital market will become more transparent because there are high standards for the selection and management of sub-funds. Since the fund will select sub-funds with good track records, sub-funds have an incentive to efficiently manage their assets. Fourth, the KFoF will be a stable investment source to venture firms, by raising 1 trillion won over five years. It is expected that the KFoF will create new venture capital ranging from 500 to 600 billion won each year.

<Figure III-12> Government SME Financing through the Capital Market



Source: Park (2005)

The KFoF will benefit from government resources, and its experienced manager will redirect these resources into a number of funds. Since private venture investment funds do not actively invest in early-stage venture firms that have relatively higher risks, the KFoF will then allocate more resources to funds whose investment mainly focuses on firms less than three years old. As of March 2007, the KFoF has already invested a total of 313.7 billion won and plans to increase its investment by 200 billion won in 2007.

<Table III-12> Investment in Korea Fund of Funds

Year	# of venture investment funds in which the KFoF invested	Volume of venture investment funds in which the KFoF invested (bil. won)	Investment of KFoF (bil. won)
2004	7	271.7	58.6
2005	17	406.4	124.5
2006	21	519.9	130.6
Total	45	1,198.0	313.7

Source: Korean Small and Medium Business Administration.

It is expected that the Korea Fund of Funds will continue to play an important role in the venture capital market. The KFoF will consistently provide funds in times of economic expansion or contraction. In fact, the KFoF may even encourage institutional investors to participate in the venture capital market during a recession, if it actively invests and gives off positive signals to investors. To do this, the KFoF (currently in its early stages) should become reputable in selecting sub-funds and venture capital companies, thereby accumulating a good track record. Later, their movements may influence other investors' decision making process when deciding whether or not to invest during a recession. Since the government already has plans to provide funding for the KFoF, it will become a stable source of funds in the venture capital market.

. Implications from the Korean Experience and Policy Recommendations

1. Implications from the Korean Experience

SME financing in Korea is heavily dependent on bank loans, as in other countries. The Korean government has used government programs to provide bank loans to SMEs via credit guarantee schemes and policy loans. Both programs facilitate SMEs' acquiring bank loans, which they cannot otherwise get, due to a lack of collateral and low credit ratings. From the Korean experience, it is important to set targets within the SME sector, such as early-stage companies with technology, which will benefit from the aforementioned programs. Otherwise, SMEs that do not need government support may benefit from the programs.

Much effort has been put into making SME financing through capital market easy in Korea. Except in the U.S., where the junk bond market developed, companies with poor credit ratings have difficulty issuing corporate bonds in most countries. Unless the high-yield bond market is well-developed, it is hard to find investors in high-yield bonds. However, companies with poor credit ratings were able to issue corporate bonds after the introduction of the P-CBO program in Korea. P-CBOs made these instruments attractive to investors because the overall risk of default decreases when P-CBOs pool bonds with different levels of risk.

The Korean venture capital industry experienced many challenges after the venture bubble burst. However, the government's continued rehabilitation efforts have kept this market steadily growing since 2005. Before the bubble burst, venture capital companies invested in venture companies without strict technology assessment and monitoring standards. After experiencing hard times, they are currently investing in venture companies through a careful inspection, monitoring, and evaluation process. Since venture investment is high-risk, high-return, investments should be made carefully with expertise. When the government tries to strengthen financial support to a certain venture industry sector, such as early-stage innovative SMEs, public funds, i.e. the Korea Fund of Funds, can be used effectively. Also, public funds can act as a safeguard for the venture capital market during a recession. If the fund is well-managed, it can contribute to the development of venture capital market.

Although the Korean government still plays a large role in the venture capital market, it has put forth a continuous effort to promote its growth. Due to deregulation, more financial institutions are expected to participate in the venture capital market. Considering the establishment of the KFoF and the removal of constraints on investment from banks and insurance companies, it seems that the government is trying to construct an investor-friendly and incentive compatible market infrastructure, rather than directly intervene in the market.

SMEs with high growth potential, especially those in high-technology sectors, have played an important role in raising productivity and maintaining competitiveness in recent years. If SMEs, especially innovative early-stage SMEs, cannot find the financing they need, their brilliant ideas will never be developed into products, no matter how great their potential. Hence, the economy will lose potential growth. Since SMEs are not knowledgeable about the various financing tools available, it is important to build an environment where they can easily access capital markets.

Building an infrastructure for SME financing through capital markets, such as a public fund and other financial instruments, seems to be more efficient than directly financing SMEs.

2. Policy Recommendations

The main difficulty in removing the financing gap in SME financing is information asymmetry. If there were an information sharing system, financial institutions could provide funds to SMEs more efficiently. More prospective SMEs will get funds from financial institutions. Hence, it would be more helpful in the long run for a government to help build information sharing mechanism, rather than assisting SMEs directly. Policymakers should search for a way to use information about SMEs currently scattered around the banking sector, in credit guarantee schemes, in other existing government programs, and in common commercial credit programs. The collective data base would provide potential investors with easily-accessible and credible information about various SMEs.

Nevertheless, there exist SMEs, such as ISMEs, that still cannot get funds from financial institutions because they have uncertainties naturally associated with their businesses. In this case, funding is supposed to be supplied through capital markets. A government can help SMEs secure capital market financing in several ways. Although an individual company is exposed to high credit risk, once SMEs with various degrees of risk exposures are pooled together, the basket of SMEs as a whole may have credit risk low enough to be attractive to debt market investors. A government may provide credit guarantee programs on the pooled products and to sell the products to investors more efficiently. A government's credit guarantee programs can be used to efficiently direct bank loans to SMEs, as well as broaden the range of investors in capital markets. However, the program should be focused on SMEs that have high growth potential, but cannot find an appropriate source of funding.

A government should also try to construct a favorable environment from entry to exit for venture capital investment. The venture capital industry is vulnerable to unfavorable economic situations; hence, there should be enough investors to raise sufficient funds. In addition, if there are various exit channels for venture capitalists, they will have more incentives to invest in early stage venture companies with high risk. Therefore, the government should try to build a constructive environment where the venture capital industry can invest in SMEs with high potential, but high risk. A government may consider legal coordination to stimulate venture capital investment to SME sectors with high potential.

A government should use private resources efficiently. One example is the public fund of funds, such as Korea Fund of Funds and European Investment Fund (EIF). If a government invests in SMEs directly, there may be moral hazards, because SMEs know the government cannot withdraw their support for political reasons. Also, professionals in the private sector have more expertise in the financial sector, because financial products are constantly changing and always developing. Therefore, it is more efficient to use the private sector to allocate public funds.

There should be coordination between government programs and private funding. Although the government's role is important in building a stable source of SME funding, its efforts to mitigate the SME financing gap cannot be successful without active participation of the private sector and investors. For this reason, a government's continuous effort to facilitate more participation from the private sector is needed. In addition, the government should focus on identifying the specific sectors of SMEs that are faced with the most severe financing gaps in the capital market. For example, SMEs with high credit ratings can easily get funding from the private sector, but they can also use government programs that have benefits such as low interest rates. If this is the case, the resources are not distributed efficiently, as they can easily get public funds as a result of their high credit ratings. In this sense, the government should focus on assisting prospective SMEs that cannot easily access funds normally available in private financial markets.

References

Kang, D. (2007), "Empirical Evaluations on the Government Financial Assistances toward SMEs in Korea", paper presented at KDI 36th Anniversary International Conference on "Financing Innovation-Oriented Businesses to Promote Entreprenuership: Experiences of Advanced Countries and Lessons to Korea"

Lee, S. (2007), "The Development of Venture Capital Industry and the Role of Government in Korea: Venture Boom vs. Post Boom", paper presented at KDI 36th Anniversary International Conference

OECD (2004), "Financing Innovative SMEs in a Global Economy", paper presented on the 2nd OECD conference of ministers responsible for SMEs on "Promoting Entrepreneurship and Innovative SMEs in a Global Economy: Towards a More Responsible and Inclusive Globalisation"

OECD (2006), "The SME Financing Gap: Theory and Evidence", volume 1, OECD Publishing

OECD (2006), "Financing SMEs and Enterpreneurs", Policy Brief, November

Oh, S. (2000), "The Korean Venture Capital Industry: Present and Future", working paper

Park, D. (2005), "Utilizing Capital Markets for SME Financing: The Korean Experience", paper presented at the ASEAN+3 Research Group Meeting

Rhee, K. (2004), "Compensation Schemes and Investment Behavior of Venture Capital Firms", Economic Papers, vol.7. no.2, pp.177-187

Sharma, S. (2007), "Financial Development and Innovation in Small Firms", Policy

Research Working Paper 4350, World Bank

Snow, J. (2002), “Financing Small and Medium Enterprises (SMEs)”, paper presented at International Conference on Financing for Development

Thompson, J.K. (2006), “Venture Capital and Private Equity: Finance for Small and Medium-sized Enterprises”, Asian Development Bank Institute