

**Restructuring Small and Medium-sized
Enterprises in Korea**

June 2007

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I. Introduction

Korean small and medium-sized enterprises (SMEs) are at a crossroad. On average, SMEs have been experiencing a secular downturn in their financial health and business profitability. From a business cycle perspective, the current difficulties faced by the SMEs are to some extent understandable: weak domestic consumption since early 2003, on top of recent price hikes in raw materials like oil and steel have placed many SMEs in a “nowhere-to-go” situation in terms of both revenue and cost. More seriously, this sector faces structural challenges: first, a relative underperformance of SMEs in productivity and profitability to large corporations attributable to a lack of innovation capacities, second, restructuring following the 1997-98 financial crisis has resulted in inefficient factor utilization, and third, emergence of fiercely growing competitors like Chinese counterparts. In addition, benign financial assistance offered by the government to SMEs such as public credit guarantee program has only provided a temporary relief. In the long run, it has been more detrimental, for it has gradually eroded the competitiveness, self-independence, and viability of those firms receiving assistance.

Despite structural problems deeply rooted in Korean SMEs, the sector has been less restructured even amid the wave of massive corporate restructuring efforts undertaken after the crisis. To prevent contagion of defaults among the SMEs, the government has offered various bailout programs such as additional credit guarantees, structured financing instruments, etc. Debt restructuring of large corporations has also created a favorable financial environment for SMEs: financial institutions have tried to provide more funding than before.

This paper will examine where the current distress among Korean SMEs stems from after briefly laying out the overall landscape of the sector. The questions posed include: how serious is the distress among SMEs relative to large companies?; has the differentiation of corporate performance among SMEs, or the so called polarization between good and bad performers, deepened over time?; to what extent has the distress persisted?; and, is the distress a structural problem or just a business cycle phenomenon? After answering to these questions, this paper will discuss the main issues and

challenges ahead in restructuring the troubled SMEs, focusing on the credit guarantee system and bank-led corporate workout program for rehabilitating pinched but viable firms. Finally, it will suggest policy recommendations for expediting the restructuring of SMEs, considering existing institutional obstacles.

II. Korean SME Sector

1. Overview

The relative importance of small and medium-sized businesses is high in Korea like other northeast Asian countries. As of the end of 2003, about 3 million SMEs were operating businesses, employing 12 million people (see <Table 1> and <Table 2>). Since large companies employ about 1.57 million workers, the SME sector contributes to 87% of the national work force. Out of all SMEs, small businesses with less than 50 workers amount to 2.91 million firms, from which micro businesses with less than 10 employees comprise 2.67 million of the total number of firms. Therefore, Korean SMEs are characterized as being “too small” on average. In terms of the number of entities, most SMEs are categorized in service industries such as wholesalers and retailers, restaurants, hotel and lodging, education, transportation, etc.

- <Table 1> here -

Despite the low share (10.8%), manufacturing firms show a relatively high share of employment (28.1%) compared to other industries. Especially, medium-sized manufacturing firms employ around 100 workers on average.¹

The average number of employees per SME is only 4. It is by far the smallest, relative to that of Taiwan and Japan.² The declining trend in firm size in terms of the number of employees has been reinforced in the course of recent financial and corporate

¹ Many economists and policymakers pay close attention to the medium-sized manufacturing firms in relation to taking SME policy measures. This paper also focuses on these firms in relation to corporate restructuring.

² Japan has slightly more than 4.7 million SMEs that hire about 30 million as of 2001, thus the number of employees per firm being 6.4. In Taiwan 1.1 million SMEs are run by 7.4 million employees. The average number of employees is 6.7.

restructuring efforts following the 1997-98 crisis. The massive restructuring of financial institutions and large corporations lead to layoffs, where many of the workers were forced to find jobs in the SME sector or start their own businesses. In order to improve cost efficiency, large corporations have also spun-off businesses which have been classified as new SMEs due to sales turnover size and/or number of employees. Consequently, both the number of SMEs and their employees are growing substantially.

- <Table 2> here -

2. Polarization of Corporate Performances

Polarization is one of the most comprehensive and compact descriptions of the recent economic phenomena in Korea. Differentiations in various categories have taken place and deepened over time, including the standards of living in Seoul Metropolitan areas vs. provincial regions; the compensation level and working conditions for permanent employees vs. temporary employees; the profitability of goods manufacturers vs. services suppliers; the corporate performances of export goods producers vs. domestically consumed goods producers, etc. Also, the polarization in corporate performance between large corporations and SMEs should receive major policy consideration.

<Table 3> summarizes a comparison of the two sectors using the data collected from their financial statements. Briefly put, large companies have outperformed SMEs except for the period where structural reforms were implemented following the financial crisis. For large corporations, the business activity index measured by sales growth rate and profitability measured by net profits had been more brisk and solid prior to the crisis. During the restructuring period, large corporations had booked financial problems as losses, which helped in revitalizing them, and to regain profitability. However, SMEs on average have not gone through a period of restructuring. Rather, SMEs were financially assisted by government policy measures including extension of credit guarantees and other forms of financial support to lower their burden. As assistance was given to SMEs, policymakers were concerned about systemic risk bringing about a contagious failure of

solvent but temporarily illiquid SMEs in the event of a credit crunch. Though the policies worked in successfully deterring a domino effect among marginal firms, it turned out that the profitability and, ultimately, long-term viability of SMEs, were eroded. As of 2003, the major financial ratios for large companies are shown in <Table 3> including financial soundness, robustness of profitability, and resilience to financial shocks relative to SMEs that have also achieved partial recovery from the crisis.

Despite the useful statistical summary describing the overall landscape of Korean SMEs, <Table 3> does not provide detail on the performance of SMEs. As a matter of fact, the business makeup of SMEs is fairly diverse. Some SMEs are comparable to large high-tech companies with global competitiveness and networks, while some are just small neighborhood grocery stores or restaurants. From the perspective of policymakers who are more concerned about social stability on top of economic efficiency, the differentiation among various groups of SMEs rather than the polarization between the SMEs and large corporations may be of more importance.

<Table 4> and <Table 5> provide a snapshot of core items showing the polarization among well- and poorly-performing SMEs in terms of the income statement and balance sheet, respectively. Return on equity (ROE) and debt-to-equity ratio are calculated from the annual financial statements of externally audited SMEs from 1991 to 2003.³ The SMEs are divided into ten groups after being ordered by performance. Decile 1 for 1991 in <Table 4>, for example, stands for average ROE of the group of SMEs, where the highest ROE is 10% in that year. Decile 2 shows the average ROE of the firms in the 10 to 20 % range from top to bottom, and so on. The figures in <Table 4> illustrate the polarization among well and poorly performing SMEs: the performers in the top 10 % were able to enhance profitability while the bottom 10% extended even larger losses over time. Note also that the share of firms with capital being depleted has tended to increase for the last decade or so. As of 2003, 12.6% of the externally audited SMEs lost all equity, and more than 20 % of the firms with positive equity were making losses. This means that around 20 to 30 % of the SMEs are facing difficulty in the ability to generate profit, which in turn calls for major turnaround efforts.

³ According to Korean legislation, common stock companies of which the assets exceed 8 billion Won,

<Table 5> tells a similar story about the need for debt restructuring. The performers in the top 30% that were financially sound look fairly good with the level of debt being less than their equity. Their equity base has even strengthened over time. In contrast, the bottom 10% performers display absolutely poor creditworthiness. Additionally, the firms in the 7 to 9 Decile show high indebtedness which would seriously undermine their repayment capability, should their profitability not improve greatly. Even though the debt-to-equity ratio has a tendency to decline among the under-performing group of firms, the speed of improvement appears slower than well-capitalized firms.

Other statistical data not displayed here but reported in Kang (2004d) echo similar sounds of polarization taking place among the SMEs. While overall sales growth rate has been gradually declining, the sales growth rate for under-performers has dropped remarkably. The interest payment costs out of the total sales have become negligible for top performers due to lower debt in addition to the recent low interest rates. However, the interest payment burden for under-performers has become even larger despite the historic low level of interest rates. All of the micro-data on the SMEs imply a desperate need for restructuring, on average, not only on the financial side but also business and employment aspects.

-<Table 3>,<Table 4>, <Table 5> here-

3. Persistence of SME Distress

Corporate distress tends to persist for quite a long time. In order to identify the dynamic pattern of performance among SMEs, this study calculates a decile transition matrix for financial ratios. The transition matrix is a table which summarizes the changes in decile ranking for a given period of time. The one-year ahead decile transition matrix of interest coverage ratio shown in the Panel A of <Table 6> displays the movement of firm's marginal density in each decile, ranked in order by the interest coverage ratio in the base year to the deciles of the ratio one year later. For example, the

around 8 million US dollars, should be annually audited by accounting firms.

firms in Decile 1 in the current year will be located in Decile 1 with a probability of 60%, in Decile 2 with a probability of 18%, in Decile 3 with a probability of 6.1%, and so on, in the following year.

The transition matrices showing the interest coverage ratio in <Table 6> have some noteworthy features. First, the probabilities on the diagonal cells are higher than the other cells in the same row. The further away a cell is located from the diagonal line, the smaller the probability. Furthermore, the transition matrices look quite symmetric. All of the facts do not show of any drastic changes in the ranking of operating profits relative to interest expenses.

Second, high and low ranked firms tend to retain the same ranking with a higher probability than firms ranked in the middle. The firms in the top 10% and those in the bottom 10% are likely to remain in the top and bottom 10% in the following year with probabilities of 60.0% and 29.6%, respectively. In contrast, firms within the range of 40% to 80% are less likely to stay put, or with the probability of about 20%. This fact implies that the top and bottom ranked firms tend to maintain their relative profitability measured by interest costs, but the firms in the middle fluctuate in a volatile fashion.

Third, comparing the one-year ahead and three-year ahead transition matrices, we could infer that the current deciles for the firms are anticipated to remain the same over a longer period of time than what the first-order Markov model predicts. Suppose that the economy changes over time according to the law of motion following the Markov process. Mechanically, the three-year transition matrix could be obtained by multiplying the one-year matrix by three times. Similarly, we could also anticipate what would happen in ten years by ten-fold iterated multiplications. Then, the resulting hypothetical matrix would be close to the unit matrix with most numbers being almost equal to 8 to 10%, which means that a firm's ranking would be nearly unpredictable in ten years no matter how well or poorly a firm was performing now. The phenomenon does not, however, occur in the real world. The persistence of ranking implies that corporate performance does not depend a great deal on recent activities and the everlasting characteristics of firms have influenced on the current results in a cumulative way. To interpret the reasoning in a slightly different manner, we could argue that

distressed firms should carry out large-scale changes in their policies and approaches to revitalize themselves in a short period of time.

Fourth, it is very difficult for those experiencing losses to regain profitability in the short run. More than 50% of the firms which recorded operating losses are prone to continue the trend in the following year. According to Kang (2004d), more than three quarters of the SMEs which have depleted their own capital entirely do not have a positive equity base in the following year. Note also that these figures are underestimated since the firms that defaulted or shut down are not included in the sample.

-<Table 6> here-

4. Causes of SME Distress

As shown previously, financial distress in the SME sector has been growing over the last decade. This tendency has been intensified by the recent unfavorable macroeconomic environment such as a decline in consumption demand for almost two years due to the consumer credit bubble bursting and emergence of China whose enterprises are direct competitors to Korean counterparts domestically and overseas. The effects have been very immediate. Many SMEs have lost market share, which is the most often cited cause for distress according to surveys. Indeed, declining sales is the number one reason driving corporate difficulties. Some other causes include the inability to collect trade receivables or default of counter-parties that are liable to the sellers (see <Table 7>).

-<Table 7> here-

The survey results, however, do not address the fundamental causes in that the survey describes superficial and immediate factors which directly affect the performance of businesses. That is to say, other underlying factors seem to exist that ultimately

weaken sales capability and reinforce credit risks. In general, businesses face uncertainties from all directions and, thus, the core competency lies in managing these various risks. As the survey shows, since the causes for the distress reveal the inexperience and inability of SMEs to cope with unexpected but foreseeable events, the problems affecting the bottom-line at SMEs stem from a lack of management skills and competencies.

In addition, the absence of financial instruments and institutions that allow SMEs to manage risks worsens the situation. In order to properly manage the risks associated with counter-party defaults, collection of credit receivables, asset price changes, etc., enterprises should be provided with financial facilities and vehicles like credit insurance, outsourced debt collection services and financial derivatives markets. The demand for these services is even more desperate at SMEs that lack in-house expertise and resources to manage risks. However, the market offering these financial services and products has not yet been well developed in Korea. Briefly, there are two main reasons. First, Korean financial markets have not yet fully matured to accommodate the diverse range of needs for risk management. This problem would be easily addressed once competition in the financial markets for exploiting arbitrage opportunities, if any, is triggered. A more serious problem lies in the second reason: government intervention in SME financing. The efforts taken by the government to remove the financial difficulties of SMEs has distorted the development of market-friendly financial services. For instance, the publicly supported credit guarantee program lowers the cost of financing for SMEs compared to private financial arrangements, in which the market is crowded. Also, managers at SMEs to some extent expect to be given preferential treatment and, therefore, take the assistance for granted. Consequently, the government's over-involvement may have weakened the development of a well-functioning financial market, as well as, increasing the over-dependency of SMEs on government policy considerations. The Korea's SME credit guarantee system and its importance in corporate restructuring will be explained more in detail in Chapter 3.

More fundamentally, productivity in the SME sector has not improved as much in comparison with that of large companies. The Korea Development Institute (2003),

for example, reports large evidence that the corporate distress experienced at SMEs is highly likely to stem from the structural problems, or stagnant productivity and dwindling profitability. [Figure 1] displays prominent productivity differences in terms of plant size. It is found that larger plants recorded higher productivity during the period from 1985 to 2001, and that the gap between large and small plants has been widening. Analysis on the growth rate of labor productivity also showed a similar pattern: larger plants recorded higher growth rates. However, if the whole sample period is divided into three pieces, it is found that smaller plants showed higher growth rates in the first sub-period (1985-89). The trend reversed in the second sub-period (1989-97), until the gap widened in the third sub-period (1998-2001) when productivity growth rate was led mostly by large firms.⁴ Therefore, the currently distressed SMEs account for the declining productivity and thus lower profitability

- [Figure 1] here -

III. SME Credit Guarantee Scheme

1. Characteristics of Korea's Credit Guarantee Scheme

The credit guarantee scheme in Korea was officially introduced in 1976 when the Korean Credit Guarantee Fund (KCGF) was established.⁵ The primary objective of the scheme in Korea is to enhance the accessibility of SMEs to external financing like many other countries, but it ultimately targets for balanced development of the national economy between large and small corporations. The other credit guarantee fund or the Korea Technology Credit Guarantee Fund (KOTEC) was established in 1989, also aiming at contributing the national economy by providing credit guarantees to facilitate

⁴ KDI (2003) also report the differences of capital productivity and total factor productivity according to the size of plants. The results are analogous to the case of labor productivity.

⁵ Before the establishment of KCGF, there existed a credit guarantee scheme. The Credit Guarantee Reserve Fund System was founded in accordance with the Presidential Decree for the Industrial Bank of Korea in 1961.

financing for new technology-based enterprises while promoting the growth of technologically prospective SMEs and venture businesses.

Information asymmetry between lending financial institutions and borrowing SMEs and lack of tangible collaterals to secure creditors' confidence in borrowers' creditworthiness keep SMEs from mobilizing external resources with which to invest in prospective but risky businesses. The existence of fixed administrative costs in lending such as information gathering, credit evaluation, monitoring credit migration, etc., renders banks hesitant to supply funds for SMEs. On top of these general rationales for necessity of the credit guarantee scheme toward SMEs, Korea has used it as a microeconomic instrument in response to macroeconomic fluctuations, especially in bad times. For example, the supply of credit guarantee had been greatly increased in the course of corporate sector restructuring after the outbreak of financial crisis in 1997. Unless credit guarantee had not alleviated financing difficulties of the SME sector, the restructuring focused on large companies might have brought about massive failures in this sector.

Economic justification for the public credit guarantee is that the social return on the recipient firm would get higher than its private one once credit guarantee is provided at the price below its inherent credit risks. The importance of SMEs such as substantial share of employment, innovating capacities driving an economy more dynamic and vigorous, etc., makes policymakers pay close attention to financial assistance sponsored by public resources. Thus, the level of assistance might be different across countries, depending on the contribution of SMEs to national economy, structure of economic system, economic development stage, social consensus on risk sharing and so on.

As of the end of 2004, the outstanding balance of credit guarantee supplied reached 47.1 trillion won, or 6.1% to nominal GDP (see [Figure 2]). The ratio was 7.6% at the hike of corporate sector restructuring in 2001 and then has declined ever since, but the absolute amounts of credit guarantee have not been seriously adjusted yet. As shown in [Figure 3], the Korea's credit guarantee balance relative to GDP size is one of the highest levels in the world with that of Japan. Just after the Japanese government

introduced the Stability Special Guarantee Program, the outstanding balance to GDP ratio was highest at 8.5% in 1999 but it has been gradually curtailed to 5.9% at the end of fiscal year 2004. Taiwan, another major country that runs a publicly sponsored credit guarantee system, has fairly large amounts of credit guarantee to SMEs recently, but it remains less than 3% to GDP. Except for the three North East Asian countries, these ratios are normally less than 1% at most in most countries regardless of the type of credit guarantee system, either public credit guarantee or mutual credit guarantee.

- [Figure 2] here -

- [Figure 3] here -

Why is it in Korea there are so much supplies of the SME credit guarantees? By and large there are four reasons. First, Korea is one of the countries that have grown most expeditiously. During the high-powered growth era profitable investment opportunities are not rare so that high financial leverage tends to pay. Credit guarantee plays an instrumental role in increasing external debt financing with which firms exploit the favorable business opportunities when capital is not sufficiently accumulated and its intermediation is not properly functioning due to the lack of efficient financial markets.

Second, abundant supply of credit guarantee could be understood by the fact that virtually almost all credit risks had been shared by the state in the economic development periods. Since the credit risks are shouldered by the government via either through *de facto* nationalized banks or implicit institutional arrangements, creditors did not assess risks in a great deal. Despite the high likelihood of mispayment due, large companies had been accessible to borrowing loans from banks or issuing bonds in the market with the ultimate loss sharing by the state. The type of state risk sharing is rather explicit in the SME sector: the SME credit guarantee scheme. Thus, large volume of SME credit guarantee does not look odd in view of risk sharing system in Korea.

Third, the policymakers that do not acquiesce in long lasting business recessions have tended to utilize the credit guarantee scheme as a salvage tool during

recessions. In principle, this policy should not be badly criticized since the scheme has a flavor of counter-cyclical measures to reduce business cycle fluctuations. The problem in Korea, however, lies in the fact that credit guarantees supplied to respond to recessions have not been contracted yet in favorable times. Therefore, the outstanding balance has always been growing over time as seen in [Figure 2].

The dramatic increase for the last seven years is not just a business cycle measure. It is called rather naturally, a crisis resolution tool. During the surge in 1998, the additional guarantee of 15.7 trillion won, is absolutely true to this assertion. It is also a right policy reaction to the crisis. But the guarantee amounts did not decrease even when the crisis became quite resolved; we observe another surge in 2001 that saw 12.3 trillion won in guarantee, at least part of which seems to serve policymakers' incentives to maintain macroeconomic business conditions and to hide the failures of venture policies in the late 20th century.⁶

Forth, the generous SME financing has been widely accepted by the nation because the sector has been viewed as isolated in economic development along with agriculture and fishery. The sympathy toward SMEs has prevailed since the late 1970s and strengthened in the wave of political democratization in the mid 1980s. In some respect, SME credit guarantees have been recognized as a compensation for the earlier sacrifice. The arguments for policy to reduce the SME financing have seemed politically infeasible until quite recently.

2. Eligibility for Credit Guarantee

Inherent problems in the Korea's credit guarantee scheme have been widely argued by domestic researchers, policymakers and practitioners but have not received international attention until IMF (2004) submitted a report asking for a structural change in its size and operation. In contrast to the large companies that engaged in financial deleveraging in the aftermath of the crisis, Korean SMEs were not pushed to reduce

⁶ The financial restructuring after the crisis makes policymakers less capable of intervening in the loan-supply decision of private banks. The only instrument left at the Ministry of Finance and Economy is the two credit guarantee funds. In order to sustain business cycles that topped down after the burst of venture bubbles, the government presumably tried to pump credits to SMEs by way of increasing credit guarantees. Banks were also incentive compatible with this government policy because they had difficulties in managing assets

overcapacity in spite of dwindling productivity and profitability as shown in Chapter II. It was pointed out that cheap credits to SMEs led by the generous credit guarantee scheme are located at the center of the criticism against sluggish SME restructuring. IMF suggested that Korea should reduce the ratio of credit guarantee amounts to GDP by one percentage point for the next five years and that the scheme should be changed in a more market-friendly way such as levying higher premium and lowering loan guarantee coverage ratio.⁷

Theoretically, public credit guarantee programs face challenges to justify whether it is socially desirable. As Vogel and Adams (1997) argue, a variety of possible credit market imperfections do not constitute a sufficient justification for establishing a credit guarantee program. Should distortions in the credit market stem from information asymmetry, the *first best* policy would be the one that directly focuses on the main cause: supplying and upgrading information needed for financial institutions which make loans to SMEs.⁸ Credit guarantee could be at most a *second best* policy in the sense that it does not target for fundamental causes but relieves their side effects.

Still, there remain second best arguments for interventions. For the credit guarantee programs to be *second best*, it is necessary to demonstrate that the first best remedy is not available and that they are the best among other alternative measures. Also the credit guarantee programs should actually enhance social welfare as they might introduce other imperfections in the process of reducing problems caused by information asymmetry. For example, the existence of generous public credit guarantee programs could cause malfunction of private transactions in the financial markets and deter emergence of innovative financial commodities. In such a case, the long-term economic efficiency might be seriously eroded.

by losing major clients, or large companies, that opted out for issuing bonds in the direct capital markets.

⁷ Currently the guarantee premium levied on the recipient firms ranges from 0.5 percent to 2.0 percent while its average is 1.07 percent in 2004. In view of the high default rates reaching above 6 percent, the premium seems significantly underpriced. The loan guarantee coverage ratio, or 86 percent on average in 2004, is relatively low in comparison with that in many other OECD countries. Levitsky (1997) defines international best practice as the coverage ratio of 60 to 70 percent.

⁸ In this respect recent policy introduced by the Korean government to establish a SME specialized credit bureau, Korea Enterprise Data Co., Ltd., is classified within the first best policies. The controlling shareholder is KCGF while KOTEC, the Industrial Bank of Korea, the Korea Development Bank, the Small Business Corporation, Korea Federation of Banks, and several other banks pay the equities. It gathers SME information from KCGF, KOTEC and other various financial institutions, compiles into KED database and provides financial institutions and other business enterprises with credit reports of individual SMEs.

Among various features regarding the evaluations of Korea's credit guarantee scheme, this article scrutinizes the performance of guaranteed SMEs in order to get advice and insights for future reforms at the micro level. [Figure 4] shows the performance of guaranteed firms depending on the number of years of credit guarantee. Panel A shows that operating profits to sales ratio in the non-guaranteed has outperformed that in the guaranteed over the entire periods. Among the guaranteed, as the guarantee period increases, the ratio tends to deteriorate, especially the ones with more than ten years of guarantee. Panel B shows the comparison in borrowing to asset ratio. The overall performance is similar: the non-guaranteed are less indebted and the longer guarantee period, the higher external borrowing.

- [Figure 4] here -

[Figure 5] illustrates the two ratios according to the asset size of firms. As seen in Panel A, fairly large SMEs with the asset of over 50 billion won are very profitable compared with the non-guaranteed. In contrast, the smaller firms with the asset of less than 20 billion won performed very badly, especially in the new millennium. This observation seems to reflect polarization among SMEs discussed in Chapter 2. The borrowing to asset ratio in Panel B also echoes the relative outperformance of larger SMEs.

- [Figure 5] here -

These empirical findings suggest the following implications. First, the credit guarantee scheme may not improve the corporate performance. Second, its effectiveness has become less stringent recently. Third, the periods of credit guarantee should not be longer in consideration of performance, let alone theoretic justification.

3. Recent Reforms on Credit Guarantee Scheme

As discussed previously, the necessities for reforming credit guarantee scheme

in Korea are full-fledged in various respects. First of all, Korea has already passed through an expeditious growth phase in economic development so that credit risk management is more relevant than further credit expansion. The empirical analysis on guaranteed firms implies that long-term guarantee does not help the recipient firms improve performance over time. There seem to exist many established firms among medium-sized businesses that have already resolved information asymmetry and made comparable profitability with non-guaranteed firms. As such, credit guarantees may be viewed as just a subsidy to non-eligible entities. Also, the excessive emphasis on public assistance toward the economically weak distorts financial markets. Some government officials have raised the issue of cost effectiveness, arguing for reducing the contributing amounts to KCGF and KOTEC from the national budget.

According to recent announcements by the Ministry of Finance and Economy, the scheme is to change recipient firms of loan guarantee with special considerations on innovation-oriented SMEs and new entrants. With the recognition that current credit guarantee amounts exceed socially desirable level, the government tries to adjust overall size, which does not necessarily mean uniform reduction in loan guarantees over the guaranteed firms. Significant cut in guarantee supply will be targeted for the relatively large companies that banks have full incentives to assess and monitor credit risks for lending and the established ones that have already resolved information asymmetry due to long-term relationship with banks. For example, the firms of which the annual sales turnover exceeds over 30 billion won and the ones that have received credit guarantee for more than 8 to 10 years will not be eligible any longer. Marginal firms in serious financial distress are also subject to termination of credit guarantees. Part of the reduction in credit guarantee amounts is supposed to be channeled toward technology-based small firms and new enterprises, of which the social returns are anticipated to be higher than private returns. This change has important implications for the Korea's SME policy to put more emphasis on potential entrants than existing firms. In this context, it is also consistent with the so called *Entrepreneurship Policy* prevalent in most European countries.

The blueprint for guarantee reforms also contains market-friendly operations.

First of all, the average guarantee coverage ratio is planned to decrease over time for the purpose of triggering banks' incentives to manage credit risks over guaranteed firms. Obviously, banks' role in credit evaluation and monitoring is utmost important in reducing the default rates of borrowers since the publicly sponsored guarantee funds are not fully incentive compatible with, and skillful enough for credit risk management. One of the most effective tools to align the incentives of guarantee funds consistent with those of banks is to make the latter shoulder more costs when the loans become sour.

But the lower loan guarantee coverage ratio may diminish the guaranteed loan amounts supplied because banks become less interested in providing loans with higher potential losses than before. This would be an unintended shock at least in the short run that may increase SME defaults, resulting in resistances to the reform. This scenario, however, is not highly probable in that banks are enjoying direct and indirect benefits from the current system. As long as the reduction in loan guarantee coverage ratio is not drastic, banks would not be better off by deviating from the guarantee programs. If the government is to reduce the ratio up to the level of international best practices, or 60 to 70 percent, annual contribution by financial institutions should also be readjusted to a lower level.⁹

The guarantee premium that the guaranteed should pay is supposed to increase further. Over time the rate will be positioned between 1.5% and 2%, on average, from current 1.07%. More importantly, the differentiation among the guaranteed will be deepened commensurate with their creditworthiness. The ceiling of guarantee premium will be raised up to 4.0%, in order to contain technology-based firms and start-up companies with high uncertainties and to put the penalty of long-term guarantee.

The aforementioned reform is closely related to the supply side of credit guarantee. In practice, this type of reforms is likely to confront aggressive resistances from the demanders that are used to the old regime. In addition, government should take burdens to correctly sort out the firms that are not eligible for guarantee. For example,

⁹ In Korea, banks must pay annual contributions to the two credit guarantee funds by law. The contributing amounts are in tandem with the corporate loan supply of each bank. Currently, the rate is 0.2% to KCGF and 0.1% to KOTEC. The existence of annual contribution by banks is a peculiar institution unlike Japan and Taiwan. Due to the contribution the loan guarantee coverage ratio could not be reduced down to the level of international best practices.

presumably insolvent firms with guarantees should not be assisted any longer. It is quite difficult to exactly distinguish non-viable firms from viable ones. Under uncertainties, the government is exposed to committing errors such as supplying credit guarantee to non-viable companies (Type I Error) while withholding it to viable companies (Type II Error), then the government should be blamed for selection failure.

One of the potential way-outs is to extend guarantees to all incumbent users for longer periods, say 3 to 5 years, and to have them amortize the guaranteed loans until maturity. This method has many benefits. First, it helps not only the demanders but also the suppliers. Distressed but viable firms have a chance to get revitalized. Non-viable firms take part in loss sharing by paying back part of debts so that the final losses born by the guarantee funds will be lessened. Thus, it actually facilitates corporate restructuring in the distressed SMEs. Second, government officials and guarantee funds do not take on the burden to verify the viability of financially distressed firms. The verification responsibility lies with the firms. In this sense this method is more practically applicable. Third, the financially distressed and guaranteed firms do not find any substantial reason to reject this offer. Therefore, the credit guarantee reforms will face less resistance.

IV. Current Efforts to Restructure Distressed SMEs

1. Ways to Restructure Distressed SMEs

Corporate restructuring efforts aimed at rehabilitating firms consist of numerous types: debt restructuring,¹⁰ employment downsizing, business reorganization and even management and governance reshuffling. Depending on the origin of difficulties, particular methods or some combination of methods are chosen to tackle the problems. In general, debt restructuring is a necessary component of most of the reform efforts, since signs of corporate distress surface when firms have difficulty in making repayments on debt. Accordingly, debt restructuring comes first in the turnaround

¹⁰ Debt restructuring comprises maturity extension, interest relief, debt write-off, debt-to-equity

process.

Despite corporate rehabilitation being the main ingredient, restructuring is often seldom sufficient in restoring profitability at distressed enterprises, especially when the underlying causes of distress stem from structural and operational aspects. The current Korean SMEs seem to fit this mold. As seen in the previous section, productivity and profitability at SMEs have been on a secular downturn over the last decade. Changes in the business environments such as the rapid growth of Chinese competitors and structural decline in domestic economic growth potentials have not been favorable to the SMEs. Although historic low interest rates have, for the time being, alleviated the financial burdens of SMEs, once interest rates begin to rise their financial health will surely be undermined drastically. The unprecedented low interest rates also imply that restructuring debt passively, like debt relief or maturity extension alone, would not be effective enough to revitalize the operationally problematic SMEs. An all out restructuring effort including more active debt restructuring like debt-to-equity swaps and business reorganization is required at many marginal enterprises.

In order to stress the importance of business restructuring at SMEs that face fundamental constraints, this study scrutinizes the operating profits of SMEs by using their revenue and cost components and ranking their correlation. The Spearman's rank correlation coefficient in [Figure 6] compares the ranking of firms by operating profits relative to total assets in the order of sales and interest costs relative to total assets, respectively. Among various items from the financial statements, the firms' ranking for operating profits correlates most highly with rankings for sales. The rankings for cost items weakly negatively correlate with rankings for operating profits. Furthermore, the interest cost ranking correlated with operating profits ranking turns out to be positive recently: the less interest costs, the higher operating profits. All of the observations combined imply that, in order to enhance profitability, more efforts need to be taken in reorganizing businesses rather than just relieving the debt burden. Without boosting sales via refocusing the main business and expanding the demand base, there is little hope of revitalizing the distressed SMEs.

2. Differences in Restructuring SMEs and Large Companies

The fact that the causes of the current distress at SMEs are more fundamental calls for expeditious restructuring main business lines rather than just cosmetically changing the financial structure of the firms. However, it is well known that painful restructuring is easier said than done: despite the long-term overall gains in economic efficiency, restructuring generally demands sacrifices, at least in the short-term, from relevant stakeholders. It also brings about inevitable wealth redistribution. Thus, a compatible incentive scheme in which every stakeholder would not be at least worse off by participating in the workouts is of practical importance. In this regard, we need to diagnose deeply buried complexities that keep not only the SME owners and managers but also creditor financial institutions from revealing any corporate distress and expediting turnarounds.

-[Figure 6] here-

Notwithstanding commonalities in restructuring SMEs and large companies, there also exist numerous specifics that apply when restructuring SMEs. Generally speaking, problematic SMEs are less likely to be revitalized. The reasons are manifold. First, they do not have a lot of intangible assets. Compared with SMEs, large companies invest more in research and development (R&D) and marketing to add more value in terms of intangible assets like goodwill, patent rights, sales network, etc. The SMEs' low level of intangible assets then implies that economic benefits gained through painful restructuring may not be rewarding. Second, the fact that the business size and scope of SMEs are smaller suggests that they could experience difficulties in business and employment reorganization. Since SMEs specialize in at most a few business lines with a limited number of workers, large-scale downsizing of business lines and/or employment is neither feasible nor affordable. Third, SME restructuring is not cost effective in most cases. Even though the target firms for restructuring are small, there

exist basic sunk costs once stakeholders determine to participate in the procedure. Also, there would be more uncertainties for distressed SMEs relative to large corporations, thus asking for an even larger certainty equivalent premium. Forth, SMEs are less resilient to bad news. Once a small firm is known to be financially distressed and undergoing restructuring, their trading partners stop doing business using credit and creditors try to freeze or curtail available credit lines. In contrast, large companies are more likely to maintain marketing operations at a normal level even under financial hardship. Thus, large companies have a better chance of proceeding with restructuring while maintaining sales turnover.

On top of the inherent disadvantages of restructuring of distressed SMEs, the external conditions and incentive structure play a role in retarding their successful rehabilitation. Since SME failures are hardly related to systemic risks unless they are susceptible to contagion on a large scale, policymakers pay less attention to restructuring the sector from the perspective of economic efficiency. If they do, they are more concerned about social stability and individual welfare of the disadvantaged. The incentives of SME owners and managers work to keep them from taking part in the restructuring process up until the firms are about to be liquidated. Without the possibility of restarting the business, corporate failure is also regarded as a personal failure. Then, it would be completely rational for them to be interfered as little as possible no matter how poorly the firm was performing. These behaviors are not checked and controlled by any other stakeholders due to a lack of a well-functioning monitoring and compliance system for SMEs.

3. Firm Size and Choice of Restructuring Methods

As mentioned above, SMEs are not a homogenous group. They consist of very diverse enterprises in terms of size, location, industry, degree of competitiveness and so on. Thus, choosing a restructuring strategy should be deliberate by considering a firm's characteristics. This section tries to specifically relate the firm size to restructuring methods.

By and large, SMEs are categorized into three groups in terms of size:

relatively large firms whose total credit amount borrowed from financial institutions reach more than 30 billion Won, or close to 30 million US dollars; medium sized firms whose total credit range from 2 billion to 30 billion Won, or 2 million to 30 million US dollars; and, small firms whose total credit are less than 2 billion Won, or 2 million US dollars. In terms of restructuring, credit size matters. Because it constrains the potential reservation costs involved in restructuring. In other words, as the amount of credit borrowed from financial institutions is greater, the benefits that could be gained from restructuring is greater, since any form of restructuring involves a certain amount of administrative costs.

In the case of large SMEs under financial distress, the restructuring business attracts financial and strategic investors. In Korea, the representative investors targeting these kinds of opportunities, among others, are corporate restructuring companies (CRC) that were established after the financial crisis, according to the Industrial Development Act.¹¹ To illustrate the activities of CRC, consider the following hypothetical example. A typical profile of one of these large but distressed SMEs looks like this: a firm with an asset size of about 40 billion Won is financially constrained from borrowing more due to the high debt-to-equity ratio of 400% in spite of the firm's development of high technology materials. It is desperate to attract the equity needed to merchandise the materials to recoup the initial investments. Here, a CRC can play a role. The CRC injects an equity capital of 10 billion Won and participates in the management of the firm with the initial owners. Once, business returns to normal, the CRC sells its equity back to the owners, and recoups its initial investment. This case offers a situation where financially distressed but operationally viable SMEs that are comparable in size to large companies could be reorganized by market forces.

The restructuring strategy for medium sized firms could be different since investors would not participate in corporate restructuring due low returns on investment. Instead, typically original credit grantors try to reorganize the viable part of firms with

¹¹ In addition to CRC, there are many other restructuring instruments which have been activated in the course of recent financial and corporate restructuring. Corporate restructuring fund (CRF) and corporate restructuring vehicle (CRV) are some of the examples. In that all of these financial arrangements follow market-friendly approaches, they are differentiated from the preexisting restructuring methodologies led by either government or banks. See Kang (2004a) more in detail.

less active restructuring methods. One advantage of pursuing this type of restructuring for creditor financial institutions, usually banks, is that they have access to more information and debt restructuring instruments than outside investors. Since the banks have had a long relationship with the obligor, related administrative costs are smaller. If the firm needs to have their debts written off or be given additional credit, the banks may help meet these needs once the assistance has proven to be effective. However, bank-led corporate restructuring efforts do not always achieve the best results because the benefits could be offset by the action of bankers who try to make up for their failures by not lending to prospective and creditworthy borrowers. Or, loan officers tend to evergreen the corporate distress in favor of their own incentives. Despite these shortcomings, bank-led corporate workouts offer the most feasible solution in most of the cases involving medium sized enterprises.

As for small enterprises under financial distress, an effective restructuring method does not exist because the benefits from restructuring do not seem large enough to cover the costs associated with it. In essence, credit extended to small enterprises is almost analogous with credit given to consumers. Considering this, passive restructuring methods like debt relief and maturity extension are the norm. When debt restructuring does not succeed in rehabilitating the firm, the remaining option seems to be liquidating the businesses.

4. Current Institutions for SME Rehabilitation

In restructuring the financially distressed medium sized enterprises, Korean policymakers are taking a close look at the corporate workouts scheme¹² that has proven to be a useful tool for turning around large corporations after the crisis. Basically, corporate workouts are collaborative efforts taken by creditor financial institutions and led by the main banks to relieve the debt burden of obligor firms and to return their businesses back to normal status. The scheme is not only effective but also inevitable when facing systemic risks, in which court-led reorganization or composition do not take

¹² Regarding the procedures and performances of the corporate workouts for large corporations, see Lee (2000) and Kang (2004b), respectively.

into concerns of overall economic performance. For this reason, the adage of “Too-big-to-fail” has prevailed. Despite the drawback that this scheme undermines the equality of creditors at least in the short-run, it also has the potential to promote their individual interests in the long-run and to contribute to social and financial stability.

In Korea, the use of corporate workout scheme on distressed SMEs is driven by two reasons: benefits gained from cost effectiveness as explained above and Korea’s intimate knowledge of the system. The experiences gained in the course of carrying out corporate restructuring following the crisis have endowed most banks with restructuring expertise and techniques. Many bankers have become accustomed to handling non-performing assets and harmonizing relevant stakeholders. Above all, they have benefited from the corporate workout program by having disposed of their own financial distresses. Thus, the corporate workout scheme is the first candidate for corporate rehabilitation programs in the case of SMEs as well.

Kang (2003b) provides strong empirical evidence that the key success factor of corporate workouts in Korea is simplifying the creditor structure. The reason is clear. Since the scheme is an out-of-court arrangement consisting of participating financial institutions based on a private agreement, harmonization among the creditors and the negligibility of outside credits from the agreement determine its performance. Consequently, the more simple the debt structure in terms of the number of creditors, the less administrative costs involved, hence the higher probability a firm has of being revitalized. This result is in accordance with the analysis done by Gilson, John and Lang (1990) which states that private workouts did not perform well in the U.S., because the creditor structure at companies is complicated due to the issuance of bonds.¹³

In order to successfully rehabilitate SMEs, it is imperative to encompass as many financial institutions as possible. The participation of KCGF and KOTEC, however, may be debatable, for they are not creditors legally, until they acquire indemnity rights after making subrogation payments on behalf of the guaranteed borrowers. That is to say, as long as the financially troubled firms are able to make

¹³ Asquith, Gertner and Scharfstein (1994) also find the consistent observation that the financially troubled firms issuing bonds publicly are more prone to file for Chapter 11 rather than being privately restructured out of court.

interest payments, the funds do not need to share the losses. Looking at the issue from a different angle, however, these firms are doomed to fail without assistance. Additionally, the size of the losses even to the funds would be enlarged after the firms go into default. Even if the funds are not responsible for their revitalization in the ex ante sense, they are better off by taking part in the collaborative corporate workouts. The debate as to whether they should be included in the agreement or not with creditors had long been protracted. But, in June 2004 the funds were allowed to be included in the agreement.

The structure of the SME corporate workout scheme resembles that of the corporate workout for large corporations with minor adjustments which take into account the specificities of SMEs. [Figure 7] summarizes the scheme's flowchart from beginning to the end. The workouts can be initiated by both the debtors and creditors. The firms facing financial difficulties may apply for a corporate workout with their main banks. Also, the main banks or the financial institutions of which the combined loans exceeding 25% of a firm's total debt may initiate a workout. After the workout application is submitted by an SME, the process of rehabilitation proceeds more rapidly than large company workouts and in-court corporate reorganization. Within seven business days, creditors hold the first meeting and decide whether they will provide the debtors with an automatic stay for debt collection. The debt is suspended for normally a month, but two months if due diligence is needed. And the suspension period may be extended for one more month based on approval from creditors holding 75% or more of the debt. During this period, the main banks prepare the restructuring plan that usually contains a range of options including debt relief, debt-to-equity conversion, additional loan provision, business restructuring, employment adjustment, etc. After an agreement is reached between the creditors' committee and the debtors,¹⁴ the main banks implement the restructuring plan and monitor the progress periodically.

-[Figure 7] here-

¹⁴ When there exist opposing creditors against the restructuring plan while more than 75% of creditors approve it, the dissentient creditors may ask the creditors' committee for purchasing their credits of which the price is greater than the liquidation value. This arrangement is borrowed from the similar article in the Corporate Restructuring Promotion Act.

One of the most distinguishing features of the SME corporate workout scheme is the treatment of incumbent owners and managers. No corporate owner and manager is willing to be subjected to reconstruction led by creditors even if the risk of default is imminent, but this type of behavior is even more striking in the SMEs. Also, changing management is quite costly from the creditors' perspective. To offer incentives and accommodate demands, the SME workout agreement contains a clause that allows incumbent managers to keep management right and the original owners to buy back converted equity from debt prior to other investors.

<Table 8> shows the firms participating in the SME corporate workout program as of April in 2005. Since the collaborative SME workouts commenced in the second half of 2004, the number of restructured firms in the program is just 30. Out of these collaborative workout firms, there is only one successful case and eight suspended cases. The workouts for the remaining firms are still under way. Most of debt restructuring is quite passive: maturity extension is the most popular and there is no case for debt-to-equity swap. In view of the statistics collaborative workouts are not effective yet.

<Table 8> also supplies information on internal workouts in which the main banks confidentially assist their troubled client firms in terms of debt restructuring. The internal workouts were popular even before the collaborative workout scheme was instituted. According to the number of firms being worked-out, internal workouts are preferred: 1,670 firms have been restructured within the program and 11% of them have successfully graduated from the internal workouts. But most of the cases are still under way so that it will take time to evaluate the performances of SME workouts.

-<Table 8> here-

V. Issues and Challenges in Restructuring SMEs

Because at least in the short-term restructuring takes a toll on most stakeholders, numerous factors both internally and externally deter them from taking early actions for corporate rehabilitation processes. Also, the institutional and systematic imperfections have delayed expeditious and effective restructuring. Consequently, financially stressed firms tend to fall in deeper operational trouble. This chapter concentrates on the main obstacles to restructuring SMEs, focusing on banks' incentive problems, institutional constraints and market imperfections.

1. Banks' Incentives

One of the most salient features among distressed Korean SMEs is that the actual occurrences of a corporate default are less frequent than what the data imply. As seen in the chapter 2, the financial and operational health of Korean SMEs has become so serious that currently 20 to 30% of the SMEs should have been under reconstruction. However, most financial indices on the SME sector look fine. As of the end of October 2004, the substandard SME loan ratio of commercial banks was 2.8%, which is an increase of 0.7%p from a year ago but it still does not hurt the banks' soundness. The dishonoring rate for trading bills issued by SMEs was 0.15% in December 2004, which does not send a bad signal, either.

Then, how should we treat the discrepancy over the health of SMEs between the financial data at the micro firm level and the aggregate indices of the sector? Before examining the way banks responded to SME distress, we need to keep in mind that Korea is experiencing a historic low in interest rates. As already seen in <Table 3>, the SMEs' average borrowing rate in 2003 was 6.57%, the lowest level ever, in which their share of interest costs out of sales was only 1.81%. Thus, as long as financially distressed firms were not asked to pay back the principals, they could still manage to make timely interest payments. This situation, however, is not sustainable, since, as we recall, the cash flow at SMEs would not be able to fully keep up with the repaying schedules due to declining productivity and increasing competition.

Based on these rational expectations, banks are right to tightly manage the credit risks associated with SME lending. The problem lies, however, in inadequate implementation stemming from tension among bankers in the headquarter and branches. The bankers at branches are directed to intensely manage non-performing loans (NPLs) in the SME sector by evaluations of their performance and enforcing it. However, the bankers try to reduce the NPL ratio in the short run by all means. Sometimes they supply additional loans to insolvent debtors who are able to make interest payments, so called *financial pyramiding* or *kiting*. These behaviors absolutely go against the banks' long-term profits.

The banks' passive approach toward SME restructuring could also be due to the loss structure, which makes banks almost immune to SME defaults. By and large, 60% of SME loans are backed by collaterals and 25% by public credit guarantees. Only the remaining 15% of loans are purely based on credits but these types of loans are skewed toward extremely healthy companies. In the case of guaranteed loans provided by KCGF and KOTEC, these funds bear losses from loans up to 85%. Even with the remaining 15% of unguaranteed loans, the banks are in a better position compared to the funds, for which are notified of overdue interest payments only after two months. That is to say, the banks have plenty of time to guard against bad SME loans, which means they bear negligible losses in the ex post sense. Therefore, the banks are incentivized enough to run on financially distressed SMEs even if it is known that bankers at the branches acquiesce in hopeless ever-greening.

How do we overcome the incentive problems at banks and their employees? Based on the premise that initiating restructuring of SMEs at an early stage is desirable from the perspectives of both financial institutions and taxpayers, financial supervisory authorities ought to begin singling out problematic but viable SMEs. In Korea, companies with credit from financial institutions exceeding 2 billion Won should be under review quarterly by the Financial Supervisory Service (FSS) according to the Corporate Restructuring Promotion Act. That is to say, FSS has information on the financial soundness of most candidate firms. Currently, since only firms deemed to be hopeless are undergoing workouts, it might be too late. Since early action and

confidentiality are elemental in SME restructuring, FSS should force commercial banks to implement measures on the SMEs at an early stage by strengthening loan classification standards applied to them.

2. Institutional Constraints

After KCGF and KOTEC participated in the SME collaborative workout agreement, the probability of workouts was largely enhanced, but the legislative constraints give the guarantee funds little room to move. As publicly sponsored institutions, both funds were established by special acts that dictate their scope of businesses and activities. According to the acts, they are not allowed or at least not explicitly stated to exercise major debt restructuring instruments. For example, they are authorized to relieve delinquent debts but not to reduce them. This article is interpreted as their inability to haircut the principal amounts. The only measures at their disposal are interest rate reduction or maturity extension or both. In addition, no explicit clause exists that allows them to convert debt into equity or to provide unsound firms with additional guarantees. The absence of capabilities to restructure debt has been determined to be the cause of their limited participation, too. Furthermore, the KCGF is not allowed to sell subrogation rights. As for the KOTEC, they can sell the credit but only to specified agents by law. These constraints also limit the effectiveness of the SME workouts.

In September 2004, the Ministry of Finance and Economy (MOFE) sent to the two funds directives that gave them the ability to exercise debt restructuring instruments popularly used in the workout system. However, since the directives are subordinate to the fund's founding acts, they are still fairly understood as being illegal. Thus, the MOFE should propose amendments to the acts.

In addition, the massive issuance of asset backed securities (ABS) for SMEs acts as an institutional constraint. In order to relieve the financing problems of many SMEs in 2000 and 2001, the government introduced securitization techniques to finance SMEs, which are called Primary Collateralized Bond Obligation (P-CBO) or Primary Collateralized Loan Obligation (P-CLO). The basic structure of the securities is illustrated in [Figure 8]. Initial credit grantors, consisting of mostly banks and

investment trust funds, pool together the loans or bonds issued by hundreds of SMEs and transfer them to special purpose company (SPC) established by the creditors. Then they issue ABS with credit enhancements and sell them to other institutional investors. The credit enhancements are usually provided by the Korea Development Bank (KDB) and their credit enhancements are again guaranteed by KCGF or KOTEC. These ABSs with credit enhancements are called P-CBO or P-CLO, depending on the type of underlying security.

-[Figure 8] here-

Then, why should we call attention to P-CBO or P-CLO in the context of corporate restructuring? The reason is that the existence of these securitized assets complicates and eventually deters restructuring. The sources of complication originate from the number of creditors and the involvement of credit guarantee funds. Compared to the initial number of the original creditors, the number of creditors holding the securitized assets increases since they are publicly sold. Furthermore, the investors are not necessarily financial institutions so they are not cooperative with the revitalization of the distressed SMEs.¹⁵

More specifically, we need to thoroughly consider the role of KCGF and KOTEC in restructuring the distressed SMEs, in which the liabilities are underlying assets of the P-CBO and P-CLO. In principle, all the losses up to a certain amount should be born by these guarantee funds, once they occur. But the question is whether these funds are legally allowed to participate in ex ante loss sharing in terms of the restructuring part of SMEs in the pool. The answer is no. It is the asset management company (AMC), or usually the main bank, that manages the entire process including delinquency and collection management. It should fulfill the fiduciary duty as a trustee. Otherwise it would be accused of negligence. Thus, in this case, the credit guarantee funds are not doomed to bear any losses in the course of restructuring. Even if early payments are triggered on the P-CBO and P-CLO due to downgrades in asset quality

¹⁵ This argument is consistent with the findings by Gilson, John and Lang (1990), Asquith, Gertner and Scharfstein (1994) and Kang (2004b).

and it is evident that KCGF and KOTEC will ultimately bear the losses, these funds are not allowed to participate in this type of SME workouts and trim their credits. This kind of credit owned by the funds is not against the SMEs but against the bankruptcy trustee which holds the claims against the defaulted SMEs. Thus, the funds cannot directly collect the debt from SMEs. As a matter of fact, they do not participate in the workouts with the subrogation rights, which means loss sharing that could otherwise be avoided. Therefore, this kind of P-CBO and P-CLO undermines the probability of a successful SME corporate workout.

How do we cope with the problem? As long as the contract does not include the contingent responses to default or bankruptcy, there does not exist any enforceable measure that facilitates the restructuring of SMEs. Hence, the covenant of P-CBO and P-CLO should specify the resolution of distressed firms of which the debts are underlying securities. In the case of large companies, where the amount of credit borrowed from financial institutions, is greater than 50 billion Won, according to the decree of the Corporate Restructuring Promotion Act, the special purpose companies which hold underlying assets securitized should be involved corporate workouts scheme. This looks to be a way to bypass the difficulties caused by P-CBO or P-CLO but should not be applied to the SME corporate workouts scheme due to its characteristics of voluntary agreement by only participating financial institutions. Therefore, restructuring measures should be seriously considered at the time when asset backed securities are issued.

3. Imperfections of Corporate Restructuring Markets

Suppose that creditors would be willing to take part in SME restructuring at an early stage, and the legal and institutional structures are perfectly supportive. Then, would restructuring of SMEs be prevalent? Not quite. Even though corporate restructuring is led mostly by creditors, the participation condition that debtors would be at least worse off under the restructuring should be satisfied. Otherwise, debtors would not be cooperative. In this vein, we have to investigate the SME owners' and managers' incentive compatibility condition.

SMEs lack the resources and expertise needed for risk management. The

SME's business size and volatile profitability requires them to hedge against unfavorable events but they do not have the necessary tools for risk management. In many cases, SMEs do not even perceive the need for such measures. When it comes to producing goods and services managers at SMEs are experts, but when it comes to protecting themselves from risk they are novices. Once managers find themselves in distress, they do not seek out appropriate consultants to help them overcome the difficulties. In fact, managers are very reluctant to reveal bad news about their firms because the creditors may cut them off from loans and trading partners may reduce their credit lines. Despite these circumstances, consulting and financial services related to credit risk management and distress resolution are not fully established in Korea.

One of other reasons that SME owners are reluctant to restructure their businesses is that they are concerned about losing not only wealth but also the opportunity to get back to normal. The absence of proper rehabilitation opportunities and existence of social stigma on defaulters would force him to a stalemate. Thus, the system that provides cooperative defaulters with opportunities to restart their businesses should be pursued in order to bring about expeditious restructuring.

As for the solutions, many suggest the implementation of institutional reforms to systematically resolve incentive problems and promote the introduction of dynamically consistent policies to facilitate corporate restructuring in the SME sector. For example, consulting services for managers at distressed firms that would help them initiate revitalization at an early stage. This would contribute to benefit both the firms and their creditors, for they seem to reduce not only the probability of default but also the size of losses even after default. Another major recommendation on expediting corporate restructuring is to provide bona fide defaulters with a second opportunity to restart businesses. The opportunity of restarting after default could lead management to liquidate hopeless businesses much earlier. This idea takes more importance, especially considering that the drive for entrepreneurship has slowed. Corporate managers may have taken on the attitude of being overly risk-averse to restructuring which is fueled by the absence of opportunity for rehabilitation after failure.

VI. Conclusion

This study examines various aspects regarding restructuring Korea's distressed SMEs. The restructuring methods applied on SMEs should not be standardized so much as their diversities. The main target group for restructuring in this study includes medium-sized manufacturing firms. For this confined target group for restructuring, it does not suggest a "one-size-fits-all" policy prescription. Despite the limitations, it tries to draw attention to a desperate demand in turning around SMEs that face fundamental and structural problems along with cyclical ones. During a period when economic growth rate is going through a secular downturn, it is of utmost importance to regain the dynamism in SME sector in order to revitalize Korea's diminishing growth momentum.

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<Table 1> Distribution of Enterprises: Firm Size and Industry (as of 2003)

(unit: thousand firms, %)

	Total	SMEs				Large Company
		Micro Business	Small Business ¹⁾	Medium Business	Subtotal ²⁾	
All Industries	3,004,105 (100.0)	2,670,990 (88.9)	2,913,850 (97.0)	85,447 (2.8)	2,999,297 (99.8)	4,808 (0.2)
Manufacturing	325,819 (100.0)	266,177 (81.7)	316,468 (97.1)	8,578 (2.6)	325,046 (99.8)	773 (0.2)
Construction	82,182 (100.0)	65,340 (79.5)	80,595 (98.1)	1,488 (1.8)	82,083 (99.9)	99 (0.1)
Wholesale & Retail	889,661 (100.0)	806,176 (90.6)	863,037 (97.0)	25,834 (2.9)	888,871 (99.9)	790 (0.1)
Accommodation & Foodservices	647,411 (100.0)	587,598 (90.8)	635,874 (98.2)	11,150 (1.7)	647,024 (99.9)	387 (0.1)
Business Services	81,442 (100.0)	49,451 (60.7)	68,072 (83.6)	12,387 (15.2)	80,459 (98.8)	983 (1.2)
Education	97,019 (100.0)	76,940 (79.3)	90,373 (93.1)	6,219 (6.4)	96,592 (99.6)	427 (0.4)

Note: 1) Small business includes micro business

2) SMEs = Small Business + Medium Business

3) () : % by industry

Source: Korea National Statistical office

<Table 2> Distribution of Employment: Firm Size and Industry (as of 2003)

(unit: thousand people, %)

	Total	SMEs				Large Company
		Micro Business	Small Business	Medium Business	Subtotal	
All Industries	12,041,387 (100.0)	5,232,697 (43.5)	7,695,568 (63.9)	2,779,062 (23.1)	10,474,630 (87.0)	1,566,757 (13.0)
Manufacturing	3,389,088 (100.0)	825,997 (24.4)	1,826,929 (53.9)	858,687 (25.3)	2,685,616 (79.2)	703,472 (20.8)
Construction	702,138 (100.0)	222,488 (31.7)	504,359 (71.8)	142,815 (20.3)	647,174 (92.2)	54,964 (7.8)
Wholesale & Retail	2,511,326 (100.0)	1,465,653 (58.4)	1,818,302 (72.4)	531,797 (21.2)	2,350,099 (93.6)	161,227 (6.4)
Accommodation & Foodservices	1,731,432 (100.0)	1,193,702 (68.9)	1,485,494 (85.8)	198,411 (11.5)	1,683,905 (97.3)	47,527 (2.7)
Business Services	850,215 (100.0)	112,042 (13.2)	228,856 (26.9)	324,958 (38.2)	553,814 (65.1)	296,401 (34.9)
Education	390,020 (100.0)	151,997 (39.0)	235,446 (60.4)	123,302 (31.6)	358,748 (92.0)	31,272 (8.0)

Note and Source: The same as in <Table 1>

<Table 3> Comparison of Financial Ratios between Large Corporations and SMEs

(unit: %)

		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Sales Growth	Large	17.81	11.67	11.23	18.96	22.25	11.27	12.92	1.97	6.58	16.68	0.84	7.21	6.55
	SME	16.79	6.31	7.13	16.47	15.9	7.82	7.02	-2.01	10.79	12.45	3.38	10.21	5.39
Interest Costs / Sales	Large	6.12	6.79	6.51	6.17	6.1	6.34	7	10.45	8.49	5.62	4.98	2.95	1.9
	SME	4.44	4.78	4.61	4.34	4.19	4.58	5.03	5.56	3.94	2.94	2.58	1.93	1.81
Salary / Sales	Large	—	—	—	—	—	—	—	8.62	8.72	8.21	8.43	8.85	8.89
	SME	—	—	—	—	—	—	—	12.3	11.71	12.48	12.89	12.28	12.67
Raw material Costs / Sales	Large	—	—	—	—	—	—	—	50.29	49.43	51.05	50.92	49.99	53.28
	SME	—	—	—	—	—	—	—	47.35	48.08	47.86	47.51	49.6	47.6
R&D / Sales	Large	—	—	—	—	—	—	—	2.02	1.77	1.47	1.52	1.72	2.02
	SME	—	—	—	—	—	—	—	0.62	0.47	0.71	0.99	0.85	0.78
Operating Profits / Sales	Large	7.2	7.44	7.95	8.62	9.75	7.31	9.72	6.53	7.38	8.21	6.03	7.54	8.16
	SME	4.73	4.1	4.97	5.26	4.61	4.62	4.98	5.15	5.23	5.83	4.54	5.29	4.64
Ordinary Profits / Sales	Large	1.84	1.86	1.87	3.06	4.4	0.98	-67	-2.91	1.01	0.26	-0.58	5.42	5.96
	SME	1.47	0.47	1.32	1.94	1.49	0.99	0.4	0.55	2.92	3.28	2.16	3.39	2.49
Net Profits / Sales	Large	1.55	1.25	1.24	2.2	3.46	0.51	-1.26	-6.08	-1.26	-4.34	-0.7	8.37	4.84
	SME	0.9	-0.05	0.82	1.4	1.18	0.59	-0.52	-0.45	2.37	2.6	1.37	2.48	2.08
Debt-to-Equity Ratio	Large	290.6	302.53	273.5	282.88	268.29	301.56	390	295.38	208.94	224.59	201.63	128.88	113.49
	SME	415.5	418.353	388.13	394.18	380.6	387.43	418.4	334.37	232.38	179.71	144.74	152.08	147.57
Current Ratio	Large	96.1	93.06	94.97	95.51	96.23	92.25	90.86	86.1	84.95	70.96	84.9	98.47	105.5
	SME	94.5	91.55	91.95	92	92.88	90.88	94.24	100.49	107.63	114.57	123.96	119.29	116.57
Fixed Asset Ratio	Large	216.4	224.63	214.84	217.41	210.2	237.65	268.23	251.23	214.53	224.7	213.11	154.61	137.47
	SME	235.7	244.39	234.69	233.16	224.36	234.01	235.95	206.47	164.24	140.71	120.9	120.91	119.35
Borrowing-to-Asset Ratio	Large	45.0	47.8	47.67	45.72	45.98	49.31	56.45	52.92	44.46	43.64	41.96	31.2	25.85
	SME	43.1	44.23	43.69	40.25	39.98	41.49	46.76	43.01	37.82	35.04	34.55	32.89	33.46
Average Borrowing Rate	Large	12.68	12.18	10.99	11.23	11.53	10.95	10.26	13.45	11.93	10.83	9.89	7.77	6.97
	SME	14.25	13.13	11.86	12.01	12.3	12.24	11.8	13.8	10.22	9.4	8.07	7.32	6.57
Interest Coverage Ratio	Large	—	—	—	—	—	—	—	62.2	86.88	146.05	121.07	255.42	428.83
	SME	—	—	—	—	—	—	—	3.92	2.83	2.04	175.56	273.7	255.93
Return on Equity	Large	5.42	4.33	4.04	7.28	11.77	1.69	-4.52	-19.27	-3.18	-11.64	-1.99	21.08	10.8
	SME	6.15	-0.33	5	8.88	7.44	3.54	-3.05	-2.45	10.15	9.41	3.99	8.32	6.54
Equity Growth Rate	Large	16.73	9.78	19.26	14.12	23.18	5.49	-0.06	28.61	36.3	-12.53	3.46	27.3	11.47
	SME	11.73	1.71	10.94	14.12	12.86	7.02	5.21	16.64	39.31	23.03	9.71	11.8	9.18

Source: Bank of Korea

<Table 4> Return on Equity of the Externally Audited SMEs

(unit: %)

Decile \ Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	51.7	51.1	60.6	60.9	56.7	63.5	58.3	69.3	89.4	74.6	69.1	73.3	78.4
2	28.5	27.7	29.1	30.2	29.2	29.4	27.8	31.0	36.6	32.7	32.8	34.9	31.1
3	21.0	20.3	21.0	22.7	20.7	20.9	18.8	20.8	25.3	22.4	22.6	23.9	21.9
4	16.4	15.6	16.1	17.5	16.1	15.2	13.7	14.6	18.9	16.2	16.2	17.5	16.3
5	12.6	11.8	12.2	13.7	12.1	11.3	9.6	10.3	14.6	11.6	11.7	13.0	11.9
6	9.5	8.2	8.8	10.2	8.9	8.1	6.1	6.7	10.9	8.1	8.1	9.2	8.4
7	6.1	4.9	5.7	6.9	5.5	4.9	3.5	3.8	7.5	4.6	4.5	5.5	5.2
8	2.5	1.9	2.5	3.1	1.8	1.9	0.4	1.3	3.8	1.6	1.7	3.0	2.1
9	-2.5	-6.5	-3.0	-1.3	-5.3	-7.2	-15.2	-8.3	0.2	-5.8	-7.0	-5.4	-5.4
10	-52.8	-61.6	-59.3	-35.1	-59.2	-65.8	-104.7	-86.7	-64.8	-62.5	-67.5	-87.7	-71.8
Mean	12.1	10.4	12.1	13.1	10.4	10.0	7.3	9.5	7.5	11.7	11.0	12.3	13.5
Medium	11.1	10.0	10.5	12.0	10.4	9.7	7.9	8.4	12.6	9.7	9.9	11.0	10.2
No. of normal firms (A)	2,444	2,766	3,114	3,497	3,547	3,736	4,164	4,329	6,036	6,656	7,114	7,511	6,959
No. of firms with capital depleted (B)	228	285	309	346	399	424	572	526	628	675	861	1,039	1,002
No. of sample firms (A+B)	2,672	3,051	3,423	3,843	3,946	4,160	4,736	4,855	6,664	7,331	7,975	8,550	7,961
Ratio (=B/(A+B))	8.5	9.3	9.0	9.0	10.1	10.2	12.1	10.8	9.4	9.2	10.8	12.2	12.6

Source: National Information & Credit Evaluations, Inc., Raw Data

<Table 5> Debt-to-Equity Ratio of the Externally Audited SMEs

(unit: %)

Decile \ Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
1	46.9	41.7	42.8	43.5	45.7	44.7	42.3	32.9	28.5	22.2	20.8	20.7	18.3
2	105.1	104.9	103.1	105.2	109.1	106.7	109.9	84.9	67.7	55.7	55.2	57.6	49.8
3	157.4	159.9	156.0	161.2	164.7	172.0	171.5	129.3	108.8	92.4	90.4	95.6	83.2
4	219.2	221.6	216.6	224.0	230.9	231.7	238.2	178.7	151.6	131.2	128.9	138.2	124.3
5	295.5	290.8	283.1	295.0	303.2	303.0	310.5	228.5	199.1	178.3	174.4	190.5	176.0
6	378.4	372.2	365.9	380.2	390.2	387.9	399.5	294.8	257.5	232.8	230.2	256.3	235.0
7	479.4	468.5	471.3	489.0	504.7	494.7	521.9	376.9	325.4	302.0	304.4	340.7	313.3
8	639.8	605.8	613.2	636.7	664.8	642.1	694.7	498.7	433.3	412.2	415.4	472.2	438.2
9	979.2	881.2	886.6	924.4	978.4	960.5	1068.2	780.1	650.6	640.8	650.0	796.5	704.3
10	2,873.8	2,334.5	2,610.5	2,434.7	2,465.3	2,773.9	3,063.3	2,440.4	1,760.6	1,823.5	1,979.6	2,823.6	2,249.7
Mean	316.7	311.3	298.0	308.9	324.1	328.5	332.0	250.8	185.9	186.1	170.2	158.6	164.0
Medium	333.4	332.8	321.6	335.5	347.3	344.1	350.2	259.2	228.4	204.5	201.8	222.3	203.3
No. of normal firms (A)	2,457	2,776	3,123	3,531	3,651	4,034	4,536	4,441	6,039	6,724	7,254	7,554	6,959
No. of firms with capital depleted (B)	229	286	311	350	409	449	602	539	629	681	869	1,039	1,002
No. of sample firms (A+B)	2,686	3,062	3,434	3,881	4,060	4,483	5,138	4,980	6,668	7,405	8,123	8,593	7,961
Ratio (=B/(A+B))	9	9	9	9	10	10	12	11	9	9	11	12	13

Source: National Information & Credit Evaluations, Inc., *Raw Data*

<Table 6> Decile Transition Matrix of Interest Coverage Ratio

A. One-year ahead

(unit: %)

1 year later Base year	Dec. 1	Dec. 2	Dec. 3	Dec. 4	Dec. 5	Dec. 6	Dec. 7	Dec. 8	Dec. 9	Dec. 10	Loss(-)
Dec. 1	60.0	18.0	6.1	3.5	1.9	1.3	0.9	0.4	0.5	0.1	7.3
Dec. 2	19.4	37.0	17.7	8.3	3.7	2.4	1.5	1.1	0.8	0.9	7.1
Dec. 3	5.7	19.7	27.4	16.7	9.1	5.2	3.4	2.0	1.2	1.1	8.4
Dec. 4	1.6	8.7	18.8	21.8	15.3	9.8	5.9	3.7	2.6	1.6	10.1
Dec. 5	1.1	3.9	9.5	17.4	19.8	15.0	9.8	6.2	4.5	2.5	10.3
Dec. 6	0.7	2.0	5.0	9.5	16.2	19.5	14.2	9.6	6.2	4.1	13.0
Dec. 7	0.3	1.2	2.8	5.6	10.1	15.8	19.5	15.4	8.6	6.1	14.6
Dec. 8	0.3	0.8	1.3	3.3	6.2	9.8	15.1	20.3	16.2	9.7	17.0
Dec. 9	0.2	0.3	1.2	2.0	3.0	5.7	10.6	16.1	23.4	16.6	20.8
Dec. 10	0.1	0.4	0.8	1.5	2.0	3.8	5.5	9.6	18.0	29.6	28.6
Loss(-)	1.8	2.3	2.7	3.3	4.1	4.0	4.7	5.8	6.9	10.2	54.1

B. Three-year ahead

(unit: %)

1 year later Base year	Dec. 1	Dec. 2	Dec. 3	Dec. 4	Dec. 5	Dec. 6	Dec. 7	Dec. 8	Dec. 9	Dec. 10	Loss(-)
Dec. 1	41.1	16.8	9.8	6.9	4.4	3.6	2.2	1.9	1.6	1.5	10.3
Dec. 2	20.4	21.0	14.4	9.8	7.2	4.4	4.1	3.0	2.0	2.0	11.5
Dec. 3	9.9	15.3	16.4	12.3	9.7	7.0	5.6	3.9	2.9	2.9	13.9
Dec. 4	5.4	10.6	11.9	13.9	10.7	8.7	7.1	6.2	5.2	4.2	16.0
Dec. 5	3.7	7.6	10.8	11.7	10.8	11.0	9.5	7.9	6.1	5.1	15.8
Dec. 6	2.1	5.3	7.7	9.7	11.8	12.3	10.6	10.0	9.3	6.5	14.9
Dec. 7	1.7	3.2	5.7	7.4	9.5	11.4	11.8	12.4	10.8	9.0	17.1
Dec. 8	1.0	2.5	4.3	6.2	7.8	10.3	12.0	14.0	12.1	12.3	17.6
Dec. 9	0.4	1.9	3.3	3.8	5.6	9.0	10.2	13.2	17.2	15.5	19.9
Dec. 10	0.5	1.6	2.1	3.9	5.1	6.1	8.7	11.1	15.6	21.0	24.3
Loss(-)	2.9	3.8	4.4	5.1	5.8	6.5	6.6	7.5	8.2	10.4	38.8

<Table 7> Causes of SME Default before and after the Financial Crisis

(unit: %)

		Sales decline	Poor collection of receivables	Counter-party default	Improper risk management	Investment failure	Worsening profitability	Management failure	Others
Main	98.9~12	47.7	26.7	6.9	6.9	4.2	3.7	2.9	1.2
	98.4~8	50.7	24.6	8.7	4.0	4.5	4.3	2.0	1.0
	97.12~98.3	32.7	21.7	23.4	3.7	7.7	6.6	2.7	1.5
	95	28.4	22.3	7.2	4.2	15.9	14.0	4.8	3.2
Secondary	98.9~12	29.2	32.2	3.5	9.9	7.6	9.4	7.0	1.2
	98.4~8	24.1	35.6	6.1	10.1	5.0	13.3	4.7	1.1
	97.12~98.3	25.3	24.0	9.0	11.5	3.8	21.5	2.1	2.8
	95	19.6	3.1	8.8	10.4	11.9	27.6	14.0	4.6
Average	98.9~12	38.5	29.4	5.2	8.4	5.9	6.6	4.9	1.2
	98.4~8	37.4	30.1	7.4	7.1	4.8	8.8	3.4	1.1
	97.12~98.3	29.0	22.9	16.2	7.6	5.8	14.0	2.4	2.2
	95	24.0	12.7	8.0	7.3	13.9	20.8	9.4	3.9

Source: Industrial Bank of Korea (1999); Korea Federation of Small and Medium Business (2000)

<Table 8> Summary of SME Corporate Workouts (as of April in 2005)

A. SMEs under Workouts

(unit: no. of firms)

	Graduation	Suspension	In Progress	Total
Collaborative Workout	1	8	21	30
Internal Workout	182	148	1,340	1,670
Total	183	156	1,361	1,700

B. Debt Restructuring under Workouts

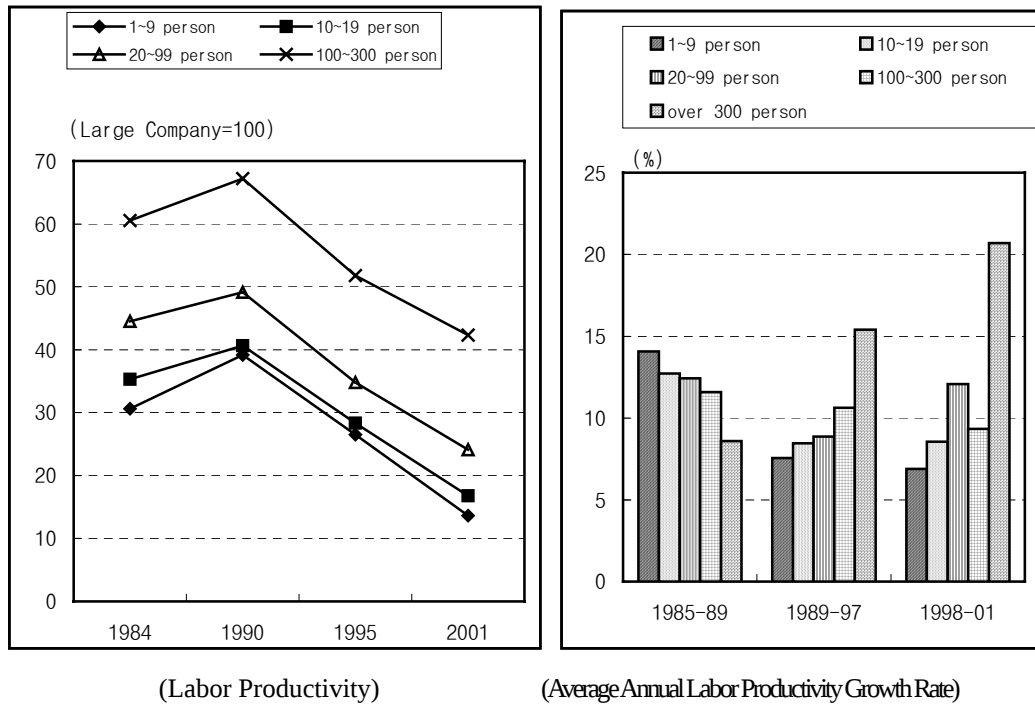
(unit: 100 million Won)

	Debt-to-Equity Swap	Maturity Extension	Interest Reduction	Fresh Loan	Principal Haircut	Total
Collaborative Workout	-	2,191	620	10	100	2,921
Internal Workout	32	15,136	1,867	1,195	211	18,441
Total	32	17,327	2,487	1,205	311	21,361

Note: Internal workouts are corporate restructuring led by main creditor banks alone when the loans are classified as substandard or below.

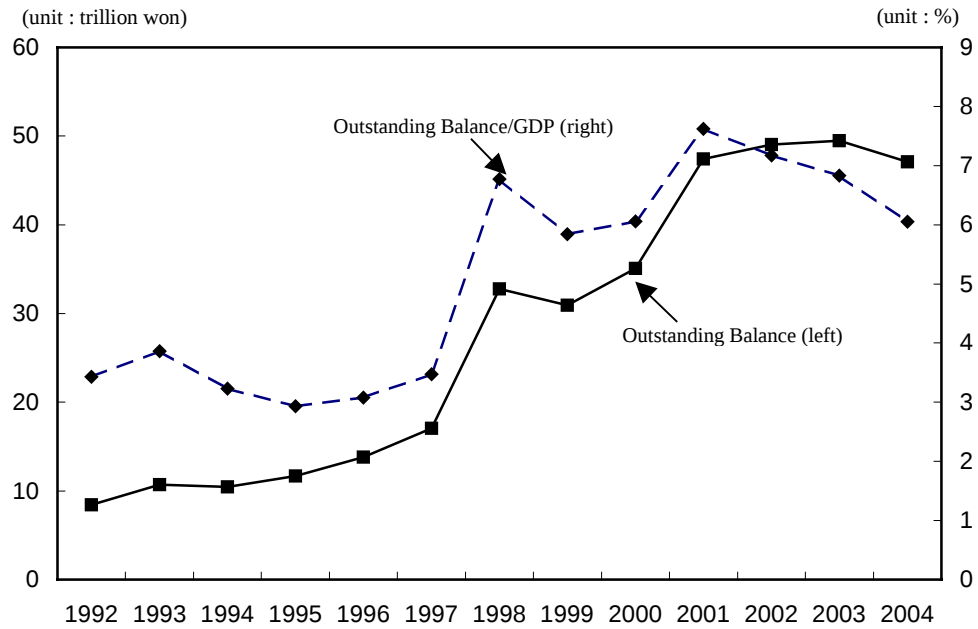
Source: Financial Supervisory Commission

[Figure 1] Labor Productivity and Its Annual Growth Rate: by Firm Size

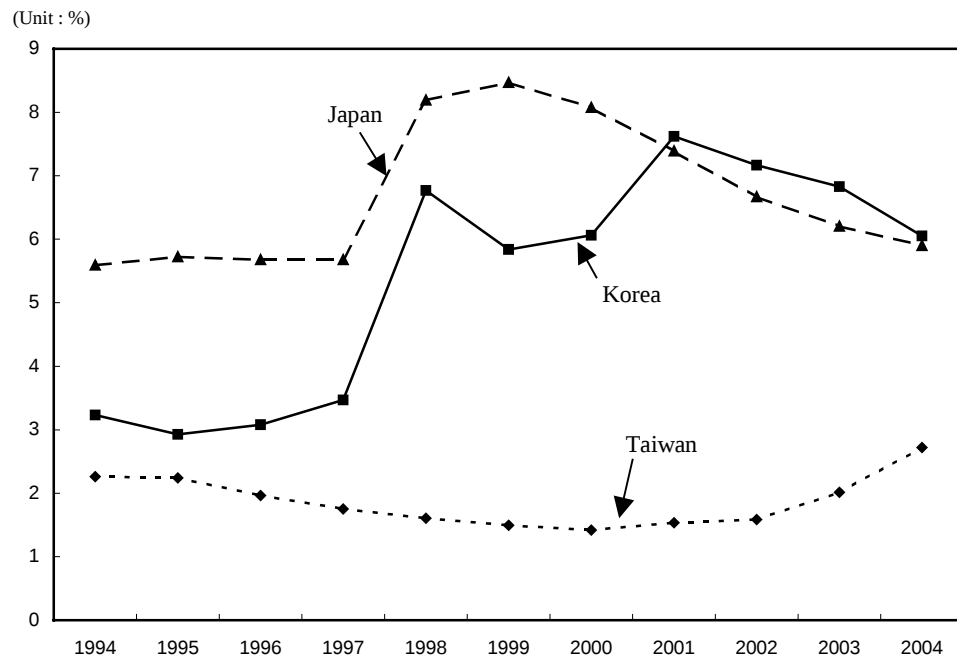


Source: Korea Development Institute (2003)

[Figure 2] Outstanding Balance of Credit Guarantee in Korea

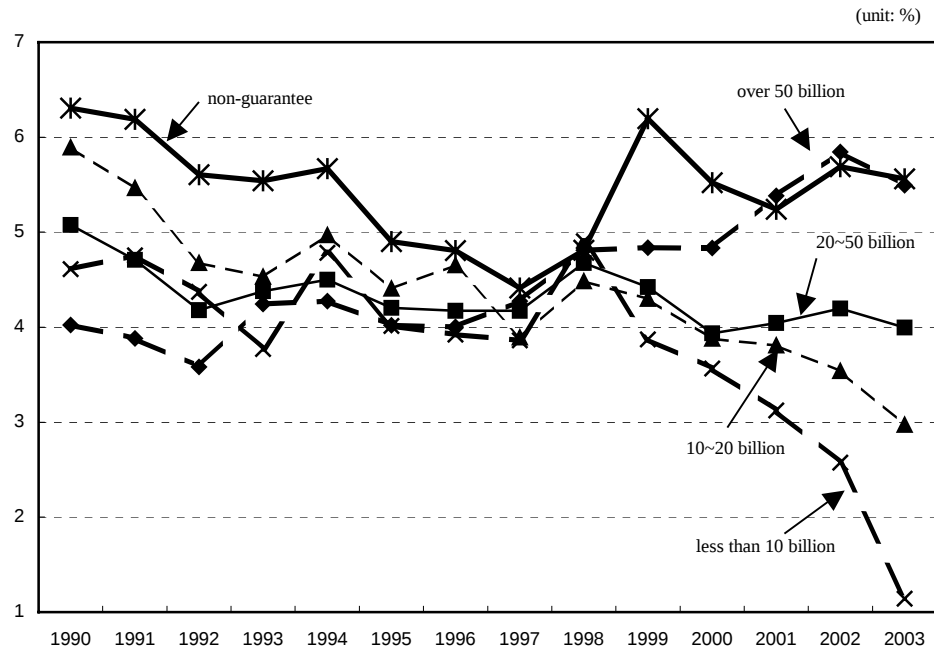


[Figure 3] International Comparison of Credit Guarantee Balance to GDP Ratio

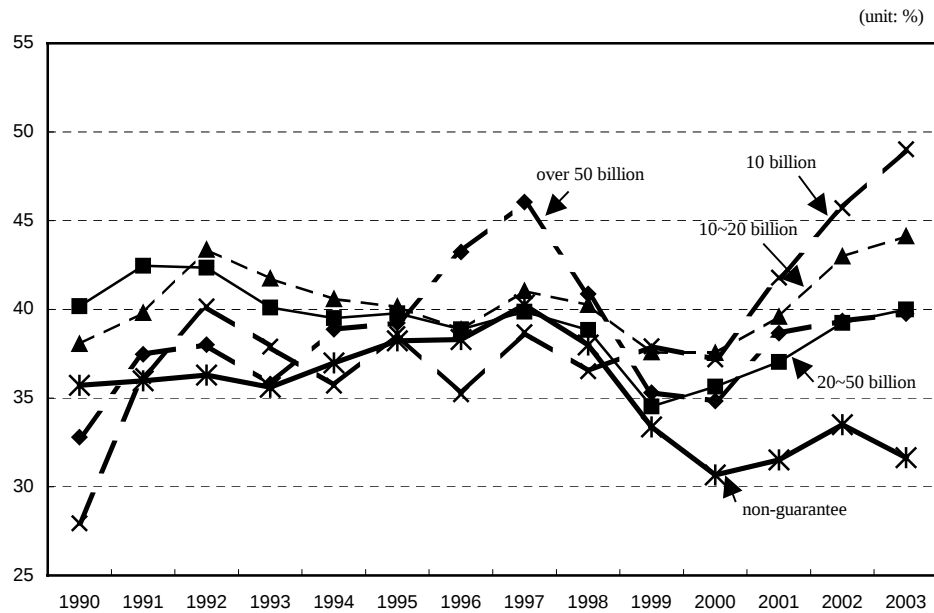


[Figure 4] Performances of Guaranteed Firms by Guarantee Periods

Panel A. Operating Profit to Sales Ratio

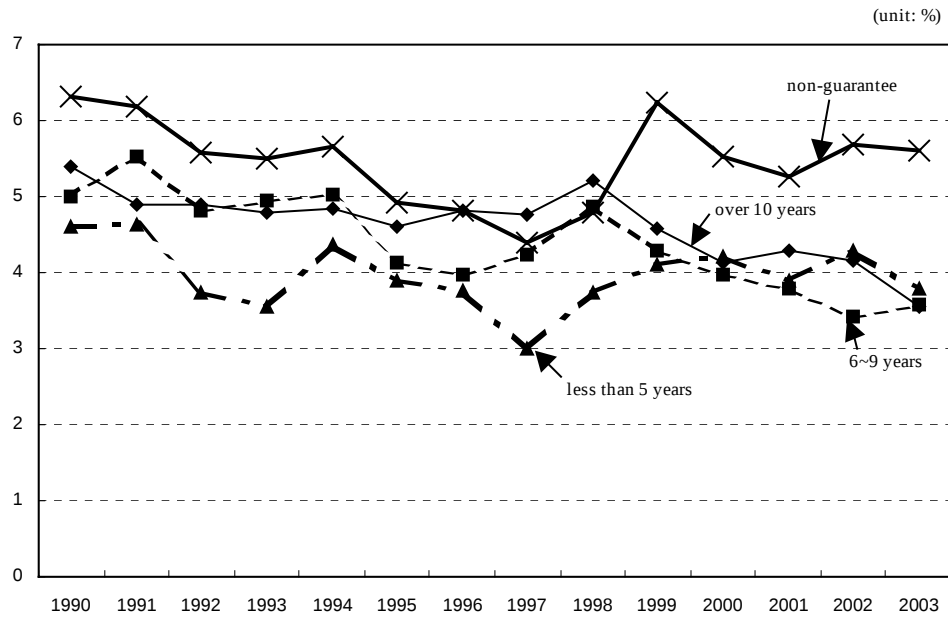


Panel B. Borrowing to Assets Ratio

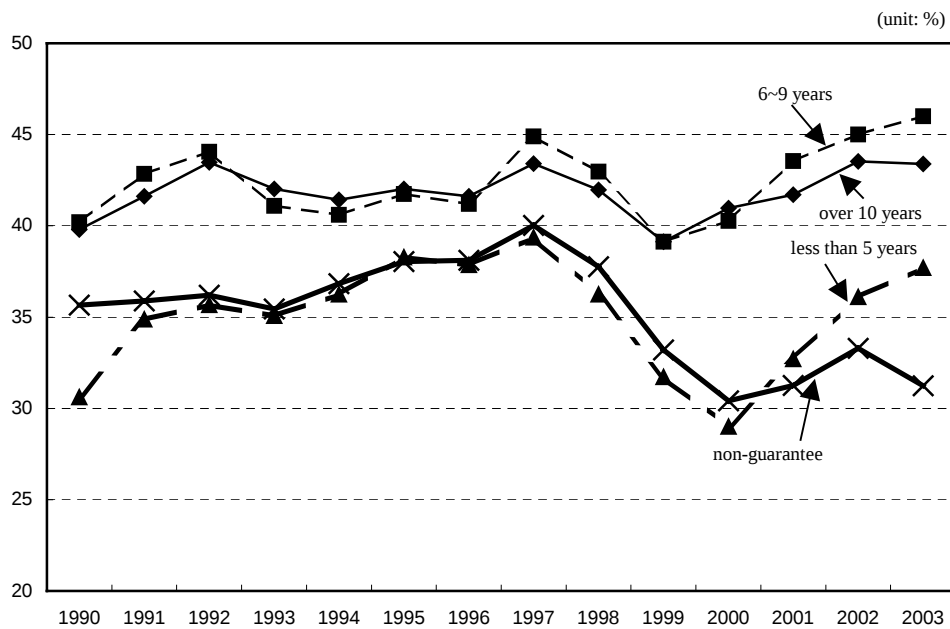


[Figure 5] Performances of Guaranteed Firms by Asset Size

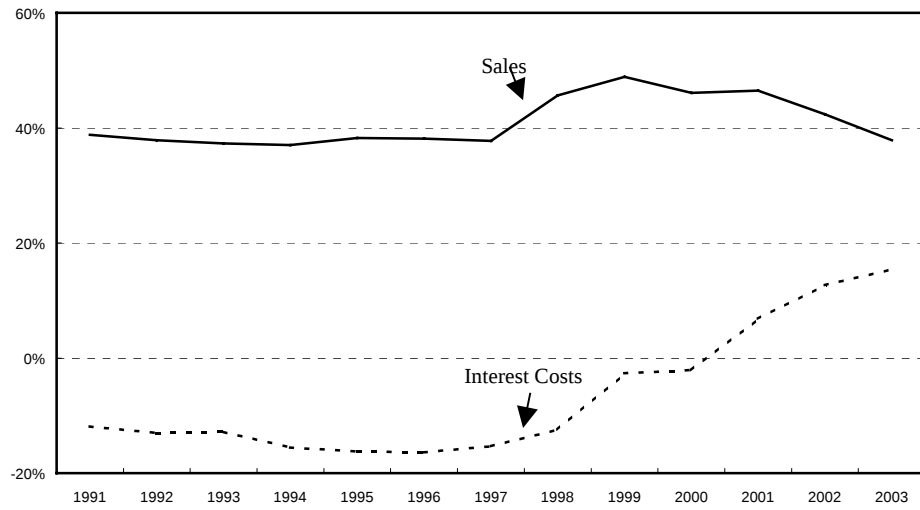
Panel A. Operating Profit to Sales Ratio



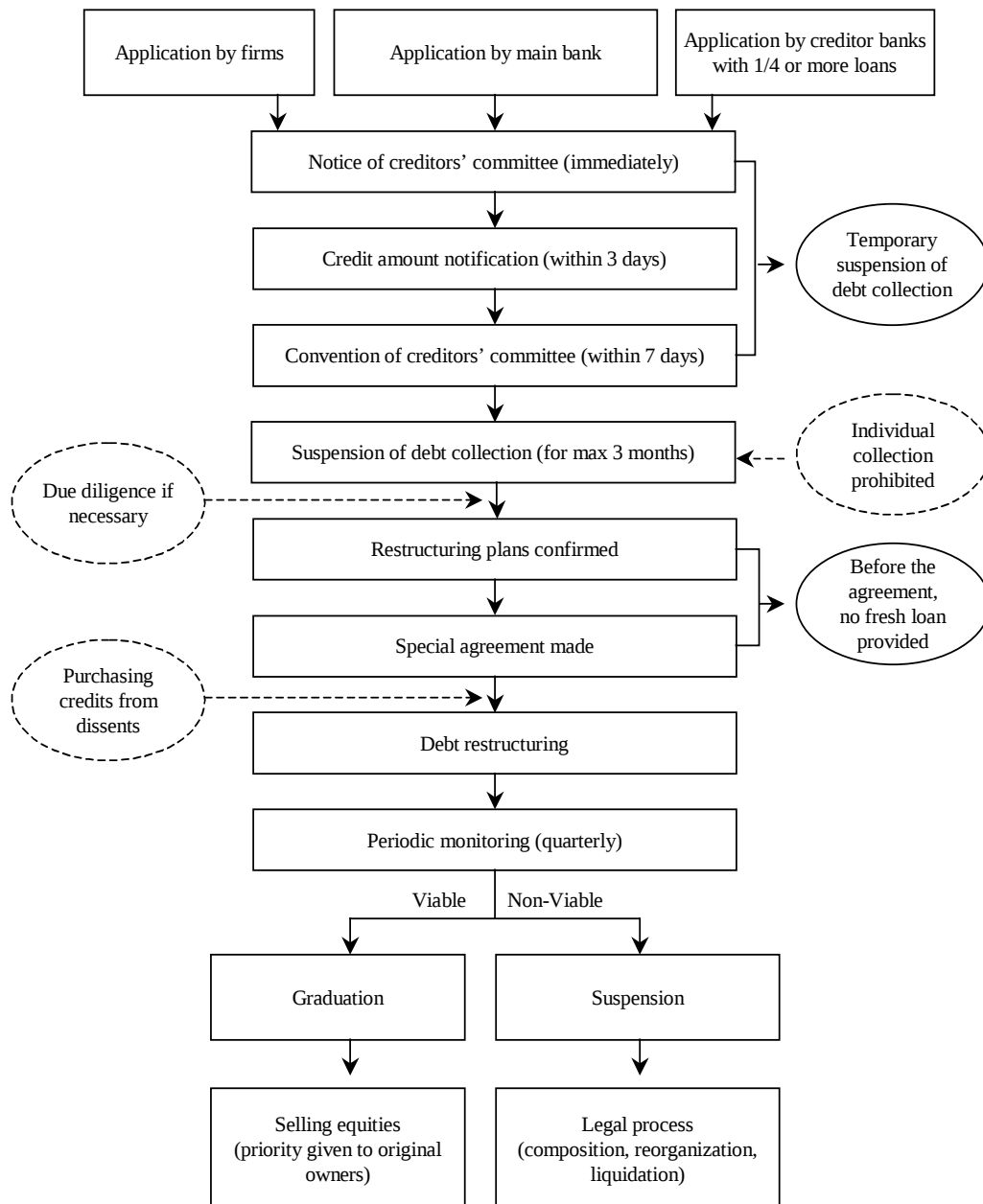
Panel B. Borrowing to Assets Ratio



[Figure 6] Spearman's Rank Correlation Coefficient with Operating Profits



[Figure 7] Flowchart of the Collaborative SME Corporate Workouts



[Figure 8] Structure of P-CBO and P-CLO for SMEs

