Economic Modeling of Korean Private Equity Market
Through Comparisons of Market Structures and Investment Strategies
Between the Korean and American Private Equity Market

By

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Submitted to the Sloan School of Management
in Partial Fulfillment of the Requirements for the Degree of

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Abstract

Modern capitalist societies depend on entrepreneurship for their progress. Entrepreneurs seek profits by introducing new goods, services, and technologies and, in doing so, they advance the economic welfare of society. To maintain and further entrepreneurial activities, each society requires a well-organized resource allocation system that can distribute resources to selected industries or firms.

The private equity market is an efficient resource allocation system that provides equity capital to the firms not quoted in the stock market. However, a private equity market is difficult to develop not only due to the high risk characteristics of the market but also because of the needs to establish value added infrastructure and to change the current financial mechanisms as the capital market evolves.

The government plays one of the most important roles in initiating a new type of capital market, the private equity market. Significant changes and evolution in the development of private equity markets are typically preceded by changes in the regulatory system (de-regulation), tax structure, monetary policy, government policy, and/or pension fund operations.

Different starting points lead to different paths of market development. However, many countries have tried to introduce private equity markets with various degrees of success. These attempts highlight the fact that different schemes of private equity market structure are necessary for each country. They will, however, converge into one economic model with efficient and effective resource allocation system in the long run.

This thesis analyzes the development history, development strategy, and current situation of the private equity industry in Korea and compares it to the overall situation in leading global countries—specifically, United States. It ultimately delivers recommendations for government policy and investment strategies in Korea and discusses economic modeling aimed at providing guidelines on how to successfully introduce a new private equity market in a certain country to serve as a resource allocation system.

Through this thesis, I found that Korea’s venture capital industry made an unprecedented economic improvement on the basis its economic recovery after the Korean financial crisis and the introduction of government supporting programs and the KOSDAQ stock
market. The KOSDAQ stock market created the third largest market capitalization in the world emerging stock markets. In just eight years, this emerging stock market became a leading trading center in OECD countries due to government driven policies of the previous 22 years. It stimulated the shifting of economic growth engines from large firms to small technology firms in Korea. But after the IT bubble collapsed in 2000, it also experienced long re-adjustment period.

Korea’s venture capital market seems to have entered into a transitional period from the more government driven system, characterized by corporate venture capital firms, to a market driven system, characterized by limited partnerships, from which the US venture capital market evolved in the 1980s. The Korean venture capital market seems to be about 20 years behind the US market in terms of its economic maturity. The current Korean market situation is similar to that of the American market in the early 1980s, which existed in a negative investment climate created by a weak stock market and global recession, few new investment opportunities, and a shortage of qualified entrepreneurs.

It is likely that the revival of the venture capital market will usher in a new wave of quantum shifts that affect the economic environment within countries. Introducing limited partnerships, shifting industry control and power from governments to markets, and restructuring venture capital markets to conform to global standards to prepare for the huge scale of investment capital inflow from pension funds and institutional investors will be necessary before a venture capital market can fully compete for investment.

In the evolution of the private equity market, the Korean financial crisis in 1998 provided an unexpected opportunity to develop an NPL (Non-Performing Loan) market in Korea. Through speedy sales of bad debts and harsh restructuring activities, Korea successfully achieved an economic recovery and opened the well organized NPL market and corporate restructuring market. However, the Korean corporate restructuring market is still waiting for the introduction of a more flexible legal system and more effective restructuring vehicles like US buyout funds and vulture funds in order to introduce on-going restructuring system.

The private equity market in Korea and the United states are at different stages. In these two countries, the government’s role, the country’s regulatory framework, and the economy’s financial market maturity has influenced the introduction of a private equity market. Ultimately, the speed of industry development in Korea will further accelerate the market’s development and allow the private equity industry to more closely mirror that of the United States and provide a more efficient and effective social resource allocation tool in the long run.

**Thesis Supervisor:** Stewart C. Myers  
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On a personal note, I am grateful to my wife Son Kisook and two sons, Baek Gyuhyeon, Baek Doohyun, whose presence has given me a meaning of life and supported me to study for a year in MIT Sloan School. This thesis is ultimately dedicated to them and to my parents who always emphasized education and taught me to have an ambitious vision.
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Chapter 1: Organization of the Thesis

1.1 The Argument

Modern capitalist societies depend on entrepreneurship for their progress. Entrepreneurs seek profits by introducing new goods, services, organizations, and techniques—and in doing so, they advance the economic welfare of society. (Baker and Smith, 1998) To maintain and further entrepreneurial activities, each society requires a well-organized resource allocation system that can allocate resources to the selective industry and firm, provide an effective infrastructure for value creation activity, and monitor the whole processes in order to maximize economic welfare.

The main entity of entrepreneurship is a firm, an inorganic organization of people and capital and knowledge, without life or breath of its own. Nevertheless, this inanimate firm has its own life cycle. A firm, like any living creature with a limited life, experiences birth, growth, decline, and extinction. The resource distribution systems that nurture firms require different characteristics based upon the differences in stages in the firm’s life cycle. Firms in their start-up, distress, and buyout stage have the highest-risk characteristics due to their uncertainty, information asymmetry, and risky asset structure, as compared with public firms. As a result, firms at these stages tend to face the most significant gap between capital supply and capital demand. Establishing an effective resource allocation system thus becomes more difficult. Furthermore, a firm in the distress and buyout stage requires an additional resource re-allocation system to solve problems related to the current economic situation before all of its capital has been burnt out. Therefore, the venture capital industry—as a resource allocation system for innovative technology development and as resource re-allocation systems for the restructuring/buyouts industry—are required to mitigate intrinsic risks and bridge the gap between capital supply and demand in the capital market.

Many scholars and policy makers consider the United States private equity market as an important catalyst for its economic growth. To what extent this holds true for other countries is a crucial question. Different countries start from different positions. A country’s existing
financial systems have a strong influence on the development of its private equity market. An important research question then becomes how the private equity market in each country will evolve and how that private equity market will be different from that of the United States. Answering these questions, first of all, requires understanding the evolution of private equity market in each country (Kuemmerle, 2001).

Policy makers in each country have other another strategic question: how many resources should be allocated to a certain industry and firm, and how can such a private equity market be created? They will guide their economy through the regulation and policy making process, by which human capital, financial capital, knowledge capital, and time capital will be allocated in an effective and efficient way.

For a country that does not have a well-organized private equity market, the more fundamental questions are how to clarify the key success factors for establishing a new private equity market, how to know the relationships among these factors, and finally, how to develop a strategy to establish the new mechanism in its economy successfully.

In this thesis, I will categorize those key success factors for creating a private equity market into the following six groups: 1) private equity investor as an intermediary, 2) human resources such as dynamic entrepreneurship and a management pool, 3) competitive advantage in technology and intellectual property, 4) exit market such as an IPO market, stock market, and M&A market, 5) professional service market such as accounting firm and consulting firm, 6) role of government through regulation and policy making, as a head of this mechanism.

Gompers and Lerner (1998) in a study of independent U.S. venture capital firms from 1972 to 1994 found that regulatory changes (such as the Department of Labor’s clarification of the “prudent man rule,” which enabled pension fund to invest more resources into venture capital) and firm-specific performance factors, affected their fundraising. They also argue that demand-side factors played an important role in venture capital fundraising. Nelson, Thomas, and Mueller ( ) showed that entrepreneurs have been important role models for
many years. Kenney, Porter and Saxenian (1994) argued that a strong range of supporting industries such as lawyers, headhunters, equipment leasing companies and investment banks specialized in supporting venture capital industry.

In this thesis, I will argue four issues. My first argument is that the private equity market is a resource re-allocation system as well as a resource allocation system to provide equity capital to firms not quoted in the stock market. My second argument is that the private equity market is difficult to develop due to its high-risk characteristics and the necessity of changing the current financial system. Current market mechanisms such as a bank and regulatory infrastructure tend to resist the introduction of a new market and make it sometimes impossible because they are designed to operate under normal conditions. Therefore, introducing a highly risky capital market requires a new type of intermediary that can reduce the intrinsic risks. My third argument is that the government’s role is the most important factor in establishing a new capital market and private equity market, since the government is linked to all other factors interactively. Any significant evolution of the private equity market must be preceded by changes to the regulatory system (e.g. de-regulation), taxation rules, monetary policies, and government policies. In the evolution process of the private equity market, the government plays a role as a head of the mechanism, leading other factors to an integrated in an efficient and effective way. My fourth argument is that different countries have tried to introduce private equity market into different situations and purposes and thus show different scheme of evolution of a private equity structure—but they will all converge into one economic model with the most efficient and effective resource allocation system.

There is a great deal of research that explores the regulatory change and policy decisions that shaped the private equity market, such as change of pension fund regulations in 1979. In a case study of venture capital development in Japan and Germany, what triggered the development of venture capital industry was also a reduction of regulation density (Kuemmerle, 2001). Regarding to restructuring market and buyout market, the United States could get a chance to develop the new Corporate Restructuring Company (CRC) market through the special measures driven by government to handle bad debts of S&L.
When I reviewed the development of the corporate control market and buyouts market in the United States, I found that several changes in the tax policy, monetary policy, and Antitrust Act had preceded each M&A wave and buyout boom. It might not be clear that these M&A Waves were induced just by the change of policy or economic cycle. But in an effort at least to solve the over-capacity problem in industry, it seems that new capital markets such as the Non-Performing Loan (NPL) market, corporate control market, M&A market, and buyouts market should have been introduced through significant regulatory changes.

Not all research supports this argument, however. On the other hand, I found research that studies the role of the government as a venture capitalist by examining the dynamics and effects of the U.S. government’s Small Business Innovation Research Program (SBIR) in the 1980s and 1990s. One study found that public venture capital crowded out private venture capital, most likely at a level close to 100 percent (Wallsten, 2000). Another study found that SBIR grants are mostly likely affected by intensive political lobbying (Lerner, 2000). These results taken together suggest that the SBIR program might not foster the growth of small firms in technologically intensive industries in a welfare efficient manner. It is well known that private initiatives, a competitive science infrastructure, and favorable legal environment contributed to the early success of the venture capital industry in the U.S. But the success of private venture capital was implemented on the experience of public venture capital and a large-scale technology development program driven by the government. This supports my argument that at the initial stage of the private equity market—and even though there are some negative results—it is clear that the government’s initiative and policies became the fundamental basis for development.

1.2 The Method

To test my argument about the government’s role in the introduction and evolution of a new capital market, I will examine the formation of the Korean private equity market, which has been successfully built up as the third-largest market capitalization in the emerging market and the second most active venture capital market and corporate restructuring market in the
world.

To identify the role model and policies that the Korean government had, the differences of those policies from those of the United States, and the results that stemmed from these differences in policy, I will analyze four major private equity industries: the venture capital market, the Non-Performing Market (NPL), the Corporate Restructuring Market (CRC), and the buyout market.

Therefore, this thesis will be composed of four sections, listed below.

First of all, the Korean venture capital market will be reviewed through an analysis of the differences in current situations, problems, and environments of Korea and the United States. A large portion of this section will be devoted to a review of the Korean venture capital market, because it was the first private equity market with 22 years worth of data and is comparable to that of the U.S. venture capital market with its 55-year history.

Secondly, the Korean corporate restructuring market will be reviewed by analyzing the NPL (Non performing loan) market formed after the financial crisis of 1997. My research will focus on the formation of the NPL market, the differences in handling methods to the bad debt, and how the NPL market evolved to the on-going corporate restructuring market.

Third, I will review the buyout market by analyzing the demands of financial market, current debates of how to introduce the buyouts market in Korea, and the key issues for forming a new market in Korea and its future expectations.

Finally, after summarizing the major differences between the private equity markets in the U.S. and Korea, I will suggest a conclusion, and make recommendations to policy makers and investors, and the economic modeling which can become a guideline for introducing a new private equity market in a certain country as a resource allocation system and re-allocation system in its economy.
Chapter 2: Introduction

2.1 Definition of Private Equity Market

This term, “private equity investment,” refers all professionally managed equity investment that provides equity capital to enterprises not quoted on a stock market. Private equity investment is generally encompasses a wide range of definitions including venture capital, corporate restructuring, and buyouts investment. Venture capital is, strictly speaking, a subset of the larger private equity asset class and refers to equity investments that deal with the financing of start-up firms, for supporting technology development at the early stage, or business expansion at the late stage.

The private equity market has been an important source of capitals for start-up firms, private middle market firms, financially distressed firms, and public firms seeking buyout financing. Private equity can be used to develop technologies and products, expand working capital, make acquisitions, or strengthen a company balance sheet. It can also resolve ownership and management issues. A succession in family-owned companies, or the buyout and buy-in of a business by experienced managers may be achieved by using private equity funding.

In this study, the private equity market will be categorized into four groups on the basis of the firm’s stage in its life cycle: first, venture capital investing to the new start-up ventures at the early stage, and growing firms on the late stage; second, non-venture private equity for the middle market private firms at the coming-of-age stage; third, turnaround for aging public and privates firm in financial distress; and finally LBO and mezzanine debt partnership for the large-scale buyout firms (Figure 2-1).

Therefore the private asset class includes venture capital, mezzanine investment, turnaround, and buyouts investment activities. Venture capital focuses on the private, young, fast growing firms, while buyout and mezzanine investing focuses on more matured firms.
(Figure 2-1) Market Classification by Firm’s Life Cycle

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Early-stage new ventures</th>
<th>Later-stage new ventures</th>
<th>Middle market private firms</th>
<th>Public and private firms in financial distress</th>
<th>Large-scale Buyouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial attributes</td>
<td>High growth potential</td>
<td>High growth potential</td>
<td>Growth prospects vary widely</td>
<td>May be over-leveraged or have operating problems</td>
<td>Under-performing but High levels of free cash flow</td>
</tr>
<tr>
<td>Reasons for seeking private equity</td>
<td>To start operations</td>
<td>To expand plant and operations</td>
<td>To finance required change in capital structure To expand by acquiring new plant</td>
<td>To effect a turnaround To emerge from bankruptcy</td>
<td>To finance a change in management/ownership</td>
</tr>
<tr>
<td>Major sources seeking private equity</td>
<td>“Angels” Early-stage venture capital</td>
<td>Later stage venture capital</td>
<td>Non-venture private equity/buyout firm</td>
<td>“Turnaround” partnership</td>
<td>LBO and mezzanine debt partnership</td>
</tr>
</tbody>
</table>
(Table 2-1) Differences between Venture Capital and Buyout

<table>
<thead>
<tr>
<th>Investment Target</th>
<th>Venture Capital</th>
<th>Mezzanine / Buyouts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Starts up business</td>
<td>• Companies that have been in the after-development stage.</td>
</tr>
<tr>
<td></td>
<td>• Early, Expansion, and Later stages</td>
<td>• Needs for financial/business restructuring for growth and turnaround</td>
</tr>
<tr>
<td>Usage of invested capital</td>
<td>• Funds the company’s negative cash-flow in development stage until the company</td>
<td>• Optimize capital structure and maximize company value</td>
</tr>
<tr>
<td></td>
<td>reach break-even (R&amp;D, Initial operating expense)</td>
<td>(Lower the debt ratio)</td>
</tr>
<tr>
<td>Inherent risk</td>
<td>• Business risk (High risk of business failure, uncertainty of cash-flow)</td>
<td>• Financial leverage risk</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Turn-around risk</td>
</tr>
<tr>
<td>Investment type</td>
<td>• Portfolio investment (Few successful investments cover losses from the larger</td>
<td>• Selective investment with well-designed deal structure (the success/failure of</td>
</tr>
<tr>
<td>(Risk hedge)</td>
<td>portion of failure)</td>
<td>each investment is more critical)</td>
</tr>
<tr>
<td>Risk return profile</td>
<td>• High risk – high return</td>
<td>• Low risk – consistently positive return</td>
</tr>
</tbody>
</table>

Return on Investment and Economic Cycle

Return on investment in venture capital is directly related to the equity capital condition and price-to-earnings ratio or, in other words, to the IPO market and technology sector stock prices. High-tech firms are especially sensitive to the success/failure risk by economic cycles (Figure2-2). In the case of the buyout market, on the contrary, the recession of the stock market, and shrinkage of IPO market by economic downturn all provide numerous opportunities for investment expansion. A weak IPO market or low price-to-earnings ratios
can create favorable conditions to the buyouts fund due to lower leverage purchase price multiples, leading to the opportunity for market expansion and investment cost down. This phenomenon is the main reason that the venture capital investment announces better performance and larger fund raising in the better economic situation, while the restructuring and buyout foretell the a worse economic situation.

(Figure 2-2)  
Annual Return to Venture Capital  
(1997~2001)  

(Figure 2-3)  
Purchase Price to EBTDA Multiple  
(1997~2001)  

Source: Venture Economics  
Source: S&P portfolio management data

Venture Capital vs. Non-venture Private Equity

George W. Fenn and Neilie Liang, (1995) in their paper “The economics of the private equity market” argued that the increase in non-venture private equity investment has been due principally to an abundance of profitable investment opportunities. Others had characterized the growth of non-venture private equity as a shift away from traditional venture capital. They attributed the shift to a variety of factors, including the presence of large institutional investors that do not want to invest in small funds or small deals; risk-aversion and shorter investment horizons among these institutional investors; a shift in the culture of private equity
firms as general partners who have backgrounds in investment banking replace general partners who have entrepreneurial backgrounds; and a decline in venture opportunities.

But it seems difficult to argue that non-venture private equity has driven out venture capital, since both have in fact grown rapidly. The available data on returns on private equity investment indicated that during the 1980s, non-venture investing generated higher returns than did venture investing. So Fenn and Liang (1995) believed that the data suggested that non-venture private equity capital had flowed into its most productive uses.

But if we review the five-year IRR for the previous twenty years time horizon as in the chart below, it is clear that venture investing has a reverse relationship to the non-venture private equity investing. This reverse characteristic is due to the difference in the risk profile of the target firm, investment strategy, deal timing, and value creation method. In a certain period, the one looks like having a higher performance than the others. But in the long run, their performances can show the different shape of performance: in other words, the reverse cycle.

(Figure 2-4) 5-Year IRR Trend in USA Private Equity Market

![5-Year IRR Trend Chart]

Source: Venture Economics/ NVCA

Private equity investment is requested for stabilizing the return on investment by investors exposed to cyclic fluctuation. Private equity can provide more diversified portfolio and risk
hedged tool to the institutional investors regardless of down-side economy cycle.

Therefore, both systems have grown together interactively to become the most efficient investment market in the given market characteristic, overcoming the inherited risks and limitations. Sometimes two markets can overlap in the mid-stage firms. Many venture capitalists focused on the late stage firms with lower risk profile, and many of them started to invest the non-venture private equity deals.

2.2 Value Chain of Private Equity Market

2.2.1. Market Conditions

In financial economics, key factors that can influence a firm’s capital supply might be defined as uncertainty, information asymmetry, characteristic of asset, and capital market condition. The private equity market has traditionally focused on four areas: venture capital, middle market, corporate restructuring, and buyouts market. These markets share all of the four characteristics, such as the high level of uncertainty, information asymmetry, and risky asset structure, compared to the public stock markets.

Uncertainty

Uncertainty means that the result of the project to be pursued in the future can not be forecasted precisely. The start-up venture firm has the high level of uncertainty in its technology development project. The distressed firm and buyout firm have a lower level of uncertainty but still a significantly high level of risk compared to the public market, especially during the period of ownership transition, financial restructuring, operational restructuring, and strategic restructuring. The private equity investors who have a professional knowledge and investment experience can reduce these risks. Furthermore they can use the various and wide human resources as well as knowledge networks to enhance the success opportunity and value of the portfolio firms.
Information Asymmetry

Information disclosure obligations keep information asymmetry at a low in the public market, but in the private equity market, information asymmetry is a much more serious issue. Information asymmetry results in selection problems and huge screening and monitoring costs. The NASDAQ market has a different type of transaction structure called a market dealer to solve this unbalance of information. Studies by Grossman and Hart (1986) and Hart and Moore (1990) show that when actions can not be recognized or the result of actions can not be proven, the capital cost of firms will increase. One sees the same patterns in the private equity investment as well, so that investors have developed the specialized market structure to solve or lessen this information asymmetry (Lee In Chan 2003). The main function of the private equity investors is, therefore, to do the role of investment intermediary to control the uncertainty and information asymmetry.

Characteristic of Asset

Starts-up venture firms tend to have a high portion of intangible assets or highly project-specific tangible assets, while distressed firm or buyout target firm have the risky assets under the condition of distress or transition stage, increasing the capital costs of firms.

(Figure 2-5) The Risk Profile of Firms

Uncertainty

Public Market

Buyout

Enterprise

Information asymmetry
2.2.2 Market characteristics

When we consider the high risk of the start-up firms, distressed firms, restructuring firms, and buyout firms, we see that private equity investment requires a highly professional capital market with special skills and networks for real value creation. In the private equity investment, the most important key success factors are referred to as a selection of investment target, investment method, and value creation activities. Major characteristics of private equity investment are described as below:

Investment Characteristics

- Expectation of high risk, high return
- Equity investment, instead of loan
- Strong monitoring or involvement with the management for the portfolio firm
- Professional value creation service

Strengths

- Strong supply of highly trained entrepreneurial managers
- Pool of well-trained private equity investment managers
- Growing appetite of institutions and wealthy individuals for specialized investments, like venture capital, buyout, etc.
- Diversification versus financial assets
- Exposure to new industry development or emerging technology
- Enhanced total portfolio returns

Weakness

- Significant illiquidity due to multi-year lock-up
  (Up-front capital investment; returns are delivered several years later)
- Considerable volatility among venture returns
- High fees (the most expensive financing method)
- Time-consuming, complex process to evaluate and monitor
- Manager selection- time consuming and risky
2.2.3 Market structure

The private equity market has three major players and an assortment of minor players to overcome intrinsic risks and limitations. The major players are private equity issuers, intermediaries, and investors. Minor players are all of those agents and advisors who three main players in the market. Intermediaries—mainly limited partnerships in the United States but also investment management firm in Korea—manage the private equity investments. Also important in the private equity market is a group of information producers, agents, and advisors whose role has increased significantly in recent years in both countries.

(Figure 2-6) Private Equity Market Structure

Source: George W Fenn and Neile Liang, 1995, “Economics of Private Equity Market”, 4P
### 2.2.4 Value creation

To maximize the firm’s value, private equity investors provide the wide range of value add services, in the form of the decreasing risks and the increasing opportunities of the portfolio firms. These value creation activities are directly related to the specific risks and opportunities inherited in the target market as below.

*(Table 2-2) Comparison of Value Creation Activities*

<table>
<thead>
<tr>
<th>Risk</th>
<th>Venture Capital</th>
<th>Corporate restructuring</th>
<th>Buyout</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Uncertainty: Very high</td>
<td>- High</td>
<td>- Medium</td>
</tr>
<tr>
<td></td>
<td>- Asymmetry: High</td>
<td>- Medium</td>
<td>- Low</td>
</tr>
<tr>
<td></td>
<td>- Asset: Intangible asset</td>
<td>- Distressed asset</td>
<td>- Sound asset</td>
</tr>
<tr>
<td></td>
<td>- Upfront capital investment</td>
<td>- Illiquidity</td>
<td>- Illiquidity</td>
</tr>
<tr>
<td></td>
<td>(Illiquidity)</td>
<td>- Ownership change</td>
<td>- Ownership change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Management selection</td>
<td>- Management selection</td>
</tr>
<tr>
<td>Opportunity</td>
<td>- Innovation</td>
<td>- Deep discount price</td>
<td>- Solving principle and agent issue</td>
</tr>
<tr>
<td></td>
<td>- Emerging technology</td>
<td>- Economic recovery</td>
<td>- Efficient management</td>
</tr>
<tr>
<td></td>
<td>- New industry development</td>
<td></td>
<td>- Synergy</td>
</tr>
<tr>
<td>Deal Structure</td>
<td>- Equity</td>
<td>- Equity + Debt</td>
<td>- Equity + Debt</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Highly Leveraged</td>
</tr>
<tr>
<td>Value Creation Activities</td>
<td>- Providing equity capital for development, growth and expansion, until positive cash-flow</td>
<td>- Financial restructuring (decrease of leverage)</td>
<td>- Tax benefits</td>
</tr>
<tr>
<td></td>
<td>- Monitoring</td>
<td>- Operational restructuring (Human, Business)</td>
<td>- Strong supply of highly-trained entrepreneurial managers</td>
</tr>
<tr>
<td></td>
<td>- Consulting</td>
<td>- Strategic restructuring (M&amp;A, alliance)</td>
<td>- Productivity</td>
</tr>
<tr>
<td></td>
<td>- Corporate governance</td>
<td></td>
<td>- Maximizing synergy</td>
</tr>
<tr>
<td></td>
<td>- Networking</td>
<td></td>
<td>- Corporate governance</td>
</tr>
<tr>
<td>Target IRR</td>
<td>50%</td>
<td>30%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Start-up Value Chain

A new start-up firm needs a lot of helps and supports to grow into a sustainable firm. Often, angel investors, universities, personal or family funds, or government research and development organizations provide the capital to the firm. When the business incorporates, however, an infusion of venture capital becomes necessary, and a new group of investors enters into the picture.

These many players create a start-up value chain that has both a horizontal component—the timeline from concept to market—and a vertical component—the participation of many players who impinge on the process in various ways. Both dimensions of the start-up value chain change in response to fast-breaking technological developments. Intense pressure to reduce time to market compresses the horizontal part of the chain, whereas extremely high valuations, increased reliance on start-up services, and a rush of new venture capitalists compress the vertical component.

(Figure 2-7) Start-Up Value Chain

* IPO = Initial public offering, M&A = merger and acquisition

Source: SRI Consulting
The start-up firm will pursue innovation during the exploration phase, differentiation in the growth phase, and competitive cost reduction in the exploitation phase. Venture capitalists provide proper value add services to the portfolio firms.

First of all, venture capitalists provide the equity capital that start-ups need for the development of innovation and growth. This equity capital will compensate the negative cash flow due to the large scale of development and fast growth that occur until the firm can make positive cash flow. Second, venture capitalists provide an upgraded corporate governance structure. They normally participate at the board of directors meeting and play a role as monitors and advisors for the management team. Third, they can provide their professional knowledge, human resources, and networks to support technology development and market development. Fourth, they can become strong supporters for the strategic alliance, M&A, and IPO activities by guiding the start-ups in timing, strategy, and professional network. Powerful venture capitalists can arrange the consecutive fund raisings by making investment consortiums and sometimes providing the portfolio firms with high level of credit or brand value.

(Figure 2-8) Firm's Life Cycle and Strategy
CRC and Buyout Value Chain

Restructuring activities can be grouped into three categories: business restructuring, financial restructuring, and strategic restructuring. The firm’s restructuring under distressed conditions might focus more on financial restructuring activities to change the highly leveraged debt structure or solve the liquidity problem. The buyout restructuring under normal conditions might be more tightly focus on business restructuring and strategic restructuring activities. The strategic restructuring is especially one of the most important processes to increase the exit opportunities. Recently, corporate restructuring market has required the prepared strategic restructuring plan at the time of investment.

(Figure 2-9) Value Chain of Corporate Restructuring

(Business Restructuring)

Organisation / Human resource

Value Maximization

Business / Product Line

(Financial Restructuring)

Restructuring on Balance Sheet

Restructuring on Profit / Loss

(STRATEGIC RESTRUCTURING)

Corporate Governance

M&A, Strategic Alliance
Breakdown of Value Creation in Buyout

The value creation process derives from financial leverage, operating improvement, multiple expansions, and multiple arbitrages as well as strategic restructuring. The impact of financial restructuring through deal sourcing, deal structuring, negotiation of purchasing and selling is accountable for 25 percent of portion for the success of the deal. The major value of restructuring and buyout deals comes from strategic and operational restructuring processes.

At this stage in the firm’s life cycle, financial leverage will be manipulated by a highly leveraged debt structure, and this debt will be reduced by repayment through operating cash flow. During this process, the firm will enjoy the tax deduction benefit on its interest payment. Operating improvement will be executed by the accelerated revenue growth and the enhanced cost efficiency. As a secondary value creation, multiple expansions will be pursued by buying at the bottom of the value cycle and the accelerated earnings growth. Multiple arbitrages will be pursued by monetizing undervalued asset classes and purchasing below market acquisitions.

(Figure 2-10) Break down of Value add in buyout

Source: Asset Alternatives (2003) - LP Survey: Estimated Sources of Buyout Return
Fund Operating Stage

The life span of a private equity fund has three main stages: portfolio construction, value creation, and harvesting. Usually during the first portfolio-construction stage of a buyout fund, the first three years are needed to record negative IRR and cash flow in the fund operation. From the fourth year, it is designed to create positive IRR and cash flow. As a result, the IRR and cash flow curve looks like a J-curve.

US private equity partnership funds have an average life span of seven to eight years. But in many cases, this life span could be extended to ten years or more. Long-term fund duration is one of the important characteristics of the private equity fund, on the consideration that portfolio construction usually needs five years and normal buyout deals take a minimum of three years of exit period. In order to complete harvesting within the life span of a fund, therefore, ten years is most reasonable life span of private equity funds. Additionally, because performance of funds depends on stock market conditions and the economic cycle at the time of exit, a more flexible harvesting period is the most important success factor that can enhance its performance.

(Figure 2-11) J-curve of private equity fund

Source: KTBnetwork
2.3 Economic Impacts of Private Equity Market

2.3.1 Resource Distribution System

Modern capitalist societies depend utterly on entrepreneurship for progress. Entrepreneurs seek profits by introducing new goods, services, organizations, and techniques. In doing so, they advance the economic welfare of society.

As we study the entrepreneurial process, three major questions come to us, as the scale of economy grows and becomes more complicated: first, how to solve the principal-agent problem; second, how much of capital to be invested to which industry and firm; and third, how to handle the limited life span of firms and economic cycle that inevitably influences the performance of firms. In terms of the social economic view, these three issues look like converging to the resource distribution mechanism, how effectively and efficiently human resource and capital resource in an economy can be allocated, monitored, and used for enhancing the wealth of economy.

In this thesis, I am arguing that the private equity market is one of the most efficient and effective resource distribution systems in most countries. Investors have the tendency to be risk averse and pursue stability. The highly risky markets, such as venture capital market, corporate restructuring market, and buyouts market, need special measurements and benefits to induce investments under such high-risk profiles. To implement this special structure in a society, the government should provide the beneficiary environments through long-term contingency policies, with industry promotion program, de-regulation, tax benefits, and flexibility to evolve under the economic changes.

Therefore the venture capital market can be called as a resource allocation system for the innovation industry. The corporate restructuring and buyouts market can be seen as a resource re-allocation system for re-circulating resources in distressed or mature firms, before they have completely burned through resources like human capital, financial capital, and knowledge capital.
2.3.2 Impacts of Venture capital

Technological Innovation
The most significant characteristic of venture companies is their capacity to meet and set new challenges for the development of innovative technology, and then to spread it into all areas of a society. The economics of venture business is based on this intrinsic challenge for technology development. Acs and Audretsch (1990) recognized that in the US, small and medium sized firms accomplished more in terms of innovative technology development than large firms in such high tech industries as data processing, electronics, and precision equipment. Sherer (1980) and Rozen (1991) showed that the technology development in small firms was more innovative and made greater impacts in society than larger firms with their marginal and limited characteristics.

High-Tech Industry
In some countries, start-up venture firms can accelerate the high-tech industry and contribute to the overall upgrade of the industry structure. Bruijmann (1993) studied the high-tech industry in Germany, and recognized that the portion of start-ups within one year of corporation history was about 13 percent, which shows that the incorporation of the high-tech industry is higher than that of other industry sectors.

In Korea, well-designed market forces and government policies actually accelerated resource distribution to the high-tech industry after the financial crisis. Korea made the transition to the new economy through the IT revolution and restructuring processes that were implemented to overcome financial crisis. The drastic industry transformation followed from old economy to new economy, from large-firm oriented growth engine to the small/medium-firm oriented growth engine, and from the traditional manufacturing industry to the IT telecommunication industry. The IT portion (Information and Telecommunication) in the Korean economy has significantly increased, as the Korean domestic IT industry grew from KRW 15.2 trillion to the KRW 141.7 trillion by the manufacturing price, with the ten time growth rate. The value added production has also grown from KRW 33.7 trillion to KRW 67.3 trillion at the 18.9 percent growth rate, higher than the GDP growth rate. The IT industry
portion in GDP increased from 8.1 percent of 1996 to 13 percent of 2000, recording the highest rate in the OECD countries (MOTI, Ministry of Telecommunication and Information of Korea).

Recently, rapid growth in the entertainment industry (mainly games and movies), which was led by venture capital industry, provides further evidence of the structure shift initiated by private equity investment.

**Job Creation**

Incorporation and growth of start-up venture firms create new jobs in the economy. Hamermesh (1993) estimated that contribution to job creation by the starts-up was 33 percent in the German economy. In the case of Korea, the Korean government had actively supported the development of the venture industry as an alternative policy to solve the large scale of lay-offs after the financial crisis of 1997. As we can see from the evidence in the chart below, the venture industry performed a high level of job creation and efficiency in the Korean economy. Job creation was one of the major reasons that politicians in the Korean government emphasized the development the venture industry.

**Table 2-3** Boom of Incorporating New Start-Up

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of VC Firms</td>
<td>2,042</td>
<td>4,934</td>
<td>8,798</td>
<td>11,392</td>
</tr>
<tr>
<td>Incorporation by professors and researchers in R&amp;D center</td>
<td>582</td>
<td>973</td>
<td>1,667</td>
<td>1,794</td>
</tr>
</tbody>
</table>


Source: SMBA

**Table 2-4** High Level of Value Creation

<table>
<thead>
<tr>
<th></th>
<th>Venture Firms</th>
<th>Small Firms</th>
<th>Large Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Growth Rate</td>
<td>44.3%</td>
<td>12.5%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Net Income</td>
<td>4.9%</td>
<td>3.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Growth of Employment</td>
<td>24.3%</td>
<td></td>
<td>3.8%</td>
</tr>
</tbody>
</table>

2001, April-July, Research for 8,245 Firms by Small and Medium Business Administration (SMBA)
But such government-driven venture policy can make a negative impact, if the government stimulates the incorporation of start-ups because of a narrow emphasis on job creation. This tendency can end with the large scale over-heating in incorporation of start-ups. In case the government directly invests its capital into starts-up to create jobs for the short-term goal, such stimulation can actually become a barrier in the development of the venture infrastructure and market mechanism for the long-term economy.

2.3.3 Impacts of Corporate Restructuring and Buyouts

Value Creation for Stakeholders

Conventional economic rationale holds that new investors and management teams can create value for a firm through the corporate restructuring process. In this case, the going concern value must be larger than the liquidation value, and conducting corporate restructuring can make value add that can be shared between new investors and credit holders. The ultimate goal of corporate restructuring is maximizing the value of all stakeholders (shareholder, bondholder, employee, and management teams). Corporate restructuring investment delivers a win-win strategy to the stakeholders related to the firm.

(Figure 2-12) Value paradigm of private equity investment
High Productivity

In the 1980s, there were controversial debates about the social impact of the leveraged buyout. But in the end, the cumulative evidence confirmed that leveraged buyouts generally resulted in improvement in the post-buyout performance of the asset that remained in the buyout partnership control (Kaplan and Jeremy Stein, 1993).

Increase in Tax Payment

The increased earnings of the more efficient buyout also generated government revenues, as did taxes paid by lenders on their interest income. Such evidence changes the negative impression in the public—especially in the media—that buyouts just utilize the tax benefits at the expense of creditors’ risk and employees’ sacrifices. It showed that buyout deals can ultimately produce real value in an economy (Jensen, Kaplan, and Stiglin, 1989).

Increase in Shareholder Value

By 1990, an academic consensus was forming that leveraged buyouts generated substantial gains to both pre- and post-buyout shareholders. Michael Jensen advocated LBO as a salvation of shareholders from the excess of managerial capitalism. The fever for buyout deals in the 1980s and mid-1990s gave a warning to the management teams to focus on shareholder value. (Jensen, “Eclipse of the public corporation”)

Leverage buyouts were a more effective method of creating shareholder value than mergers, and they were good not only for shareholders but also for other stakeholders in the corporate economy. Evidence also mounted casting doubt on the long-term value to acquiring shareholders of more conventional, strategic mergers, contrast to the more successful buyout (Shleifer and Vishny, 1990).

Job Creation

According to data assembled by KKR’s accounting firm Deloitte, Haskins &Sells, buyout resulted not only in substantial increases in the market values of companies and possibly higher tax revenues, but also in generally increased employment, capital investment, and R&D expenditures of the assets that remained under KKR’s control. (Baker and Smith, 1999)
Upgrading Corporate Governance
The legal and institutional structure of leveraged buyout represented a new corporate form with the potential to correct long-standing problems in corporate governance, as the management can participate as a major shareholder in the firm’s ownership structure. Leveraged buyout is known as a significant tool to solve the agent and principle issue (Baskin and Miranti).

Persistency in Success
If the first fund was top quartile, the next fund will also be top quartile or top half with a 45 percent and a 73 percent chance, respectively (EVCA, June 2001). In buyouts industry, the spread between top performances and average performance is large. Private equity investment shows not a random performance but a high persistency, under the economic fluctuations.

(Table 2-5) Fund IRR (US 1980 ~1995)

<table>
<thead>
<tr>
<th></th>
<th>US Buyout firm (%)</th>
<th>US Listed Equity (%)</th>
<th>US Fixed Income (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper 25%</strong></td>
<td>21.9</td>
<td>17</td>
<td>12.6</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>14</td>
<td>15.9</td>
<td>12</td>
</tr>
<tr>
<td><strong>Lower 25%</strong></td>
<td>6.9</td>
<td>14.8</td>
<td>11.5</td>
</tr>
<tr>
<td><strong>Spread between top and bottom</strong></td>
<td>15.0</td>
<td>2.3</td>
<td>1.1</td>
</tr>
</tbody>
</table>

European private equity (1993~1999): Spread between top and bottom = 25.2%
Source: EVCA, June 2001

2.3.4 Government Policy and Social Cost

Two Issues for Government Policy
The private equity market is generally known to contribute to technology innovation, high-tech industrialization, productivity enhancement, and job creation as well as economic growth. A number of authors have argued that across countries, different financial institutions
might fulfill similar roles such as the pooling of funds, investing, or the execution of payment (Allen & Gale, 2000; Crane et al., 1995; Merton, 1995). A similar argument has been made regarding the institutions that foster industrial innovation (Nelson, 1993). An important functional role that needs to be filled in every country is the discovery and development of industrial innovations (Chesbrough, 1999; Mansfield, 1988; Nelson & Winter, 1982). Therefore, every government has tried to nurture the high-tech venture industry, corporate restructuring market, and buyout market in their economy. (Kummerle, 2001)

The Externality and Government Policy

In the some countries even with pre-existing financial markets related to the venture industry, their governments have tried to expand the capital flow into the venture industry. Why did they try to expand the capital flow to venture industry and venture capital market? This answer can be found in the externality of the venture industry, namely the economic contribution of the venture industry. Sometimes, certain governments through tax benefits or subsidiary program have tried to maximize this externality by allocating more resources to the venture industry and venture capital market than the private sector could.

But this artificial government intervention to the capital market can result in additional costs, such as administrative costs, monitoring costs, and social costs related to the adverse selection and inefficient allocation of social resource. Therefore, balancing the government policy between maximizing the externality and establishing the market mechanism with legacy became the toughest issue to confront each government with regard to the development of the venture capital market.
Chapter 3: Overview of the Venture Capital Market

3.1 Brief History

The Korean venture capital market was born in 1982. It experienced its most dramatic stage of development between 1995 and 1999 through the buildup of the regulatory structure, supporting infrastructure, and the exit market such as KOSDAQ. But after the collapse of the IT bubble, the over-heated venture capital market has entered into a calibration stage, wiping out the bubble and reconstructing the confidence and competitiveness of both the venture industry and the venture capital market. The Korean venture capital market is now moving forwards to the global standard of the fourth stage, as indicated in the table below:

(Table 3-1) Summary of venture Capital History in Korea

<table>
<thead>
<tr>
<th>Stage</th>
<th>Time</th>
<th>Headline</th>
<th>Govt. role</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Stage</td>
<td>1982–1995</td>
<td>Planting trees in the desert</td>
<td>Explorer</td>
<td>• 1st generation venture firm</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• private venture capital by the Incorporation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Supporting Law for small business</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Lack of exit market</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Low level of social preference</td>
</tr>
<tr>
<td>Infra buildup &amp; Growth Stage</td>
<td>1996–1999</td>
<td>Hot fever of venture investment in Korea</td>
<td>Initiator</td>
<td>• Forming of exit market (KOSDAQ)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Establishing regulatory environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Emerging of venture as new growth engine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Emerging of Venture stars</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Fast sifting of resource allocation to Venture</td>
</tr>
<tr>
<td>Calibration Stage</td>
<td>2000–2003</td>
<td>Moral hazard and differentiation</td>
<td>Facilitator</td>
<td>• Recession after IT bubble</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Criticism to the direct support of government</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Populism to Anti-venture</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Tightened regulation (Government intervention to the moral hazard)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Political issuing of venture industry</td>
</tr>
<tr>
<td>Rebounding Stage</td>
<td>2004–</td>
<td>Global standard</td>
<td>Supporter</td>
<td>• Economic Recovery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Strengthening the global competitiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Recovery of social confidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Maturing of market infrastructure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Establishing of economic order (Transparency, credit, governance structure)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Positive cycle for self-developing</td>
</tr>
</tbody>
</table>
3.2 Market Trend

In Korea, the development of the venture capital market was initiated by the Korean government’s vision. CRC and the buyout market, on the other hand, were initiated by special economic conditions, restructuring processes for the insolvent financial institutions and corporations after the Korean financial crisis.

Since the mid-1980s, the Korean government has changed its economic development policy from the growth driven economic development to the sustainable high-technology oriented development, and had actively supported small firms, instead of big conglomerates which previously had been the main growth engine of the Korean economy.

Korea’s venture capital industry has recorded remarkable growth within the last eight years, after many years of sluggish performance. This growth in venture capital is further evidence of Korea’s impressive economic recovery after the capital crisis at the end of 1997 and the severe recession during 1998. The success of the venture capital industry has been a result of venture investment promotion programs driven by the Korean government for stimulating the technology development, changing the economic growth engine from big conglomerates to small and medium size firms, and creating a lot of jobs.

To understand this growth, it is necessary to follow the patterns especially during the past few years. In 2001, among Korean companies that received new venture investment, 72 percent had been established in the previous three years or less, compared with only 55 percent in 1998. Between 2002 and 2003, Korea’s venture capital industry faced serious challenges, the decrease of exit opportunity due to the shrunken IPO market after the IT bubble collapse.

The IT sectors accounted for 64 percent of total venture capital investment in 2001, up from just 7 percent in 1998. But the IT sector decreased to 51 percent in 2001 and 44 percent in 2002. Investors are now showing a change of interest from IT-oriented investment towards biotech, entertainment, and traditional industry. The entertainment sector has firmly
positioned as the most promising investment opportunity, resulting from consecutive successes of Korean blockbuster movies that recorded over 10 million ticket sales. Unlike the situation in the United States, the investment to the biotech industry did not increase in Korea. Most risk-averse investors have been expanding portfolios into the traditional industry with steady revenue and late-stage venture firms that are possible to IPO within two years.

As in the other OECD countries, there is a large regional inequality in the Korean venture capital market. Venture capital investments are concentrated in the Metropolitan Seoul Area and its neighboring regions. Together with its neighboring Incheon city and Kyungi province, the Seoul area accounted for 87 percent of investments in 2002. The unequal distribution of venture capital is a reflection of the geographic concentration of human capital, economic activities, and financial resources in Korea.

In Korea, the government and large corporations contribute to most venture capital funding which is channeled primarily through venture capital firms (VCFs) and limited partnership fund (LPFs). The Korean government account for about half (52 percent) of total shares in VCFs in 2001, the conglomerate provided another 40 percent, while financial institutions such as banks and securities firms supplied the rest. Institutional investors, such as pension funds and individuals (business angels), contribute a far smaller share of venture capital flows, compared to the United States. However, the relative institutional and individual contributions are now increasing. The share of foreign investment in Korea venture capital market is low level, less than three percent. (Gunseli Baygan, 2002)

3.3 Key Facts of Venture Capital Market

Leading Position in the World

Korea now ranks among the leading OECD countries in venture capital market as a share of GDP and has by far the largest venture capital market relative to its economy among Asian
countries. Venture capital investment reached a peak of KRW 2008 billion (0.63 percent of GDP) in 2000, a four-fold increase from 1998. In 2001, venture capital investment declined slightly due to the economic slowdown and the collapse of stock market but far less than in other OECD countries.

Approximately two thirds of total flows are invested in firms in the early or expansion stages in Korea, nearing the level of the United States and Canada. In the venture capital activities across countries stem from a number of factors and can be affected by government through a range of policies. The choice and effectiveness of policy instruments depend on correctly identifying the nature and size of relevant market failures, e.g., with regard to various investment size, stage, sectors and/or region.

(Figure 3-1) Ratio of Private Equity Investment to GDP

Source: The UN University/EU DG research conference on Financial System, Corporate Investment in Innovation and Venture Capital in Brussels, Nov. 2002
Third Largest Market Capitalization in the Emerging Market

KOSDAQ ranks 37th in terms of total market capitalization, and 19th in terms of trading value, in compared with member exchange of the World Federations of Exchanges.

Among the major emerging markets, KOSDAQ ranks the 3rd in terms of total market capitalization following the NASDAQ and JASDAQ; the 2nd in terms of trading value following NASDAQ with just eight years of history. KOSDAQ became the most successful case of the emerging market focusing SMEs (Small and Medium Enterprises) and ventures related to the high growth industries. A total of 888 firms were listed as of March 2004.

(Figure 3-2) Market Capitalization and Trading Volume of Emerging Markets

Source: KOSDAQ market, at the end of March, 2004
Chapter 4: Development of Venture Capital Market

4.1 Initial Stage (1981~1995)

4.1.1 Introduction Period (1981~1986)

Establishment of KTAC

Venture capital in Korea has a surprisingly long history. It dates from 1974, when for the purpose of introducing the venture capital industry, the Korean government established KTAC on the same model as ARD (American Research and Development Inc). As the ARD was established for the purpose of commercializing the technology development at MIT after World War II, KTAC was also established for the purpose commercializing the technology developments from KIST.

To understand the adoption of the US model in the Korea, it is important to review ARD in its historical context. The goal of ARD, a publicly traded, closed-end investment firm, was to devise a private-sector solution to the lack of financing for new enterprises and small businesses. The founder recognized that a growing portion of the nation’s wealth was becoming concentrated in the hands of financial institutions rather than individuals, who had traditionally been the major source of funds for small business. Thus, the founder of ARD hoped to design a private institution that attracted institutional investors. The second goal was to create an institution that provided managerial expertise as well as capital to new business.

While ARD eventually became profitable, providing its original investors with a 15.8 percent annual rate of return over its 25 years and providing firms with managerial assistance, KTAC could not complete its planned role. It faced limitations in the domestic technology levels and industry structures of the 1970s, and a lack of social understanding of high-risk technology development. When we consider these limitations, we can not admit KTAC as the origin of the Korean venture capital industry.

(Note: The main body of US venture capital history was referred from The Economics of the Private Equity Market by George W. Fenn. and Nellie, Dec. 1995)
Establishment of New Technology Development Financing Company

At the advent of 1980s, the Korean government recognized the necessity of a financial market to support private technology innovation, with the increasing technology development projects. The government gradually saw an especial necessity to raise small and medium sized businesses in order to overcome the structural weakness of industries in Korea, which had been focused to the conglomerate and assembly production industries that need huge amounts of investment capital under the license contract. It came to be seen that a private capital market for supporting small technology firms must be introduced. So in 1981 the government established the Korea Technology Development Corporation (KTDC) which later came to be called KTBNetwork. This was the origin of the Korean venture capital firm. The KTDC along with KTAC and two other financial investors played key roles in the introduction period.

Until the early 1980s, these venture capital firms did not have the capacity to invest in start-up firms, so they focused mainly on providing low-cost loans and conditional loans\(^1\). From the mid 1980s on, they were able to start real venture investment to the first generation of venture firms such as Madison, Mirae Corporation, and Sam Bo Computer. These became venture star firms when they were listed in the Korea Stock Exchange (KSE) market in the mid 1990s and contributed to create a venture boom. In the early stages of their development, Korean venture capital firms concentrated on providing low-cost loans supported by the government, similar to the role that the Small Business Investment Companies (SBIC) played in the US venture capital industry in the 1970s.

In 1986, the Korean government introduced the Incorporation Supporting Law for small and medium-sized firms and the New Technology Business Financial Supporting Law to expand the capital flow into the venture capital market. Four new technology financing firms were established with licenses from the Ministry of Finance and Economy on the basis of the New

\(^1\) Conditional loan: This is a kind of debt financing. It means repaying principal and interest on the ratio of revenue generation, a similar concept to royalty.
Technology Business Financial Supporting Law, and other pure venture capital firms were established with licenses from the Ministry of Commerce, Industry and Energy on the basis of the Incorporation Supporting Law for the Small and Medium firms.

(Table 4-1) Major events of venture capital market in the introduction period

<table>
<thead>
<tr>
<th>Period</th>
<th>Venture capital market</th>
<th>Investment portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Debt financing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Experimental investment</td>
<td></td>
</tr>
<tr>
<td>1984-1985</td>
<td>- Increase of experimental investment</td>
<td>Madison, Seongmon, Mirae corporation</td>
</tr>
<tr>
<td>1986</td>
<td>- Incorporation Supporting Law for the small and medium firms.</td>
<td>Eastel systems, Naewae electronics</td>
</tr>
<tr>
<td></td>
<td>- New Technology Business Financing Supporting Law</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Venture capital firms</td>
<td></td>
</tr>
</tbody>
</table>

4.1.2 Formation Period (1987-1996)

Increase of Venture Capital Firms

At the end of 1986, the number of venture capital firms had increased to 12 and their paid-in-capital was KRW 59 billion, the only accessible capital for investment. By the end of the 1980s, due to the active economy supported by the low Japanese Yen value, low oil price and low interest rate, the number of venture capital firms had continuously increased from 12 firms to 54 firms in 1992. But a downturn in the domestic economy and a recession of the KSE market pressed a restructuring the venture capital industry. As a result, its number decreased to 48 firms in 1995. After 1995, the fast growth of the Information and Telecommunication (IT) industry revived social concern for venture capital. Some experimental portfolios that were invested in 1980s started to be listed in KSE or OTC (Over-The-Count) Market, attracting investor attention. As the capital flow shifted along with public concern to the venture capital industry, the number of the venture capital firms increased once again.
(Table 4-2) Number of Venture Capital Firms

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of firms</td>
<td>12</td>
<td>17</td>
<td>23</td>
<td>30</td>
<td>52</td>
<td>53</td>
<td>54</td>
<td>52</td>
<td>51</td>
<td>48</td>
<td>53</td>
</tr>
<tr>
<td>Paid-in-capital</td>
<td>590</td>
<td>960</td>
<td>1,571</td>
<td>2,441</td>
<td>4,032</td>
<td>4,662</td>
<td>5,110</td>
<td>5,260</td>
<td>5,430</td>
<td>6,007</td>
<td>7,613</td>
</tr>
</tbody>
</table>

Source: Small and Medium Business Administration (SMBA)

Introduction of Venture Fund

On 1987, the government introduced a venture fund system in Korea, which became the core of the capital raising capability in the venture capital industry. At the end of 1987, KTIC had succeeded in making a fund at first. From 1990, five to seven funds were raised annually, but the amount of fundraising was so minimal that the total amount of fund did not significantly increase. At the end of 1996, just 28 firms—55 percent of 53 firms—could have their own funds. The drastic increase of fundraising in 1995 owed completely to foreign capital, which was raised for the purpose of enjoying capital gain by high interest rate in Korea and invested with a type of put-option or other illegal ways with lower risks.

(Table 4-3) Venture Fundraising Trend

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of fund</td>
<td>18</td>
<td>29</td>
<td>30</td>
<td>36</td>
<td>41</td>
<td>47</td>
<td>66</td>
<td>71</td>
</tr>
<tr>
<td>Number of firms</td>
<td>14</td>
<td>18</td>
<td>19</td>
<td>23</td>
<td>24</td>
<td>24</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>Amount of fund</td>
<td>975</td>
<td>1,665</td>
<td>1,715</td>
<td>1,940</td>
<td>2,250</td>
<td>3,499</td>
<td>6,845</td>
<td>7,192</td>
</tr>
<tr>
<td>Average amount</td>
<td>54</td>
<td>57</td>
<td>57</td>
<td>54</td>
<td>55</td>
<td>74</td>
<td>104</td>
<td>101</td>
</tr>
</tbody>
</table>

Source: SMBA

In 1996, KRW 712.2 billion was fundraised through 71 funds. Foreign investors were responsible for 48 percent of the total amount, and institutional investors for 9.5 percent. The reasons that pension funds and institutional investors had not participated in venture capital funds was the lower performance of capital gain (which was two to three percent lower than other financial products) and the regulatory barrier to prohibit investment to the high-risk sectors. They were permitted to invest into private equity funds in 2001.
Characteristics of Formation Period

Weak Fundamental for Start-Up Firms
The first salient characteristic of the formation period was the preponderance of large firms. Until 1996, the growth engine of economy was not on the start-up venture industry, but on the large firms, where technology development and a human resource pool were concentrated. These key resources could not be supplied to the start-up venture firms until after the 1997 financial crisis. Until 1996, there were only a few limited number of start-up firms in which venture capital could invest, but after the crisis, employees who felt unstable in their organizations combined a new entrepreneurial sense with their knowledge and technology to create new opportunities.

Non-existence of Exit Market
Second, the venture capital industry did not have an exit market in which its investment portfolio could be divested and can be changed into cash except the KSE stock market. KSE had such strict requirements for IPO, though, that start-up ventures could not meet the requirement for listing.

High Interest Rate
Third, by 1996 economic condition were not conducive to venture capital investment. From the 1980s through the mid 1990s, the Korean financial market was characterized as a debt financing market with a high interest rate. With an average seven to ten percent growth rate, there was a continuous surplus of capital demand, which led to high levels of interest rate. Under such high interest rates, venture capital investment could not be a better financial product than debt financing with collateral.

Government Driven Market
Fourth, the venture capital market was introduced by government industry policies and was guided to invest into start-up firms under the investment guidance rules, such as limitation of target firms with a fourteen-year operation history. These limitations inevitably result in the lower return of investment—two to three percent—so that venture capital tried to waive the guideline by focusing debt financing, with the form of investment, such as conditional loan.
### Table 4-4: Major Regulatory Changes in Formation Period

|-----------------|-------------|-------------|
|                 | KRW 2 Billion → 5 Billion (’89)  
KRW 5 Billion →10 Billion (’91) |             |
| Target firm     | 3 years → 5 years (’89) | 5 year → 7 year (’94) |
| Target industry | Positive system | Negative system |
| Investment ratio| Over 30% of paid-in-capital within 3 years → Over 50% | Over 50% of paid-in-capital within 5 years → Over 40% (’94) |
| Investment coverage | Equity investment, Convertible bond | Contractual investment and loan were involved into the investment category |
| Others          |             | Permitting of chaebols` participation |

### Table 4-5: Major Changes of Venture capital Industry

<table>
<thead>
<tr>
<th>Venture Capital</th>
<th>Investment Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987 ~ 1989</td>
<td>Mirae industry,</td>
</tr>
<tr>
<td></td>
<td>Naewae electric,</td>
</tr>
<tr>
<td></td>
<td>Gongseong Teecommuncation</td>
</tr>
<tr>
<td></td>
<td>Dawoo technology</td>
</tr>
<tr>
<td></td>
<td>Handy soft</td>
</tr>
<tr>
<td></td>
<td>Terbo Tech</td>
</tr>
</tbody>
</table>
| 1990 ~ 1993     | Emerging of mobile telecom business (Pager, cellular, PCS)  
-Growth of internet  
-Increase of investment to IT sector  
-Hot competition in venture capital  
-Opening of KOSDAQ market |
| 1994 ~ 1996     | Standard telecom    |
|                 | Pantec              |
|                 | NawooCom            |
(Table 4-6) Major Characteristics in Formation Period

<table>
<thead>
<tr>
<th>Market Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Venture capital firm</strong></td>
</tr>
<tr>
<td>- 4 New technology financing firms and 50 venture capital firms</td>
</tr>
<tr>
<td>- Two markets</td>
</tr>
<tr>
<td><strong>Source of capital</strong></td>
</tr>
<tr>
<td>- Invest with corporate capital (Paid-in-capital and borrowing)</td>
</tr>
<tr>
<td>- Few fund (mainly organized by foreign investors)</td>
</tr>
<tr>
<td><strong>Operation of capital</strong></td>
</tr>
<tr>
<td>- Passive investment</td>
</tr>
<tr>
<td>(mainly loan or contractual investment)</td>
</tr>
<tr>
<td><strong>Investment target</strong></td>
</tr>
<tr>
<td>- Mechanics/metal or Electric/Electronic sector</td>
</tr>
<tr>
<td>- Increase of IT and Entertainment industry after mid -1990s</td>
</tr>
<tr>
<td><strong>Divestment</strong></td>
</tr>
<tr>
<td>- KSE market and Over-the-count market</td>
</tr>
<tr>
<td>- Emerging of Few success case</td>
</tr>
<tr>
<td>(First generation star venture)</td>
</tr>
<tr>
<td><strong>Economy environment</strong></td>
</tr>
<tr>
<td>- Delay of restructuring in industry and financing sectors</td>
</tr>
<tr>
<td>- Change of growth engine from mechanics/metal and electonics/electric industry to IT industry</td>
</tr>
<tr>
<td>- Emerging of successful case</td>
</tr>
<tr>
<td>- Increasing of social concern for venture capital</td>
</tr>
</tbody>
</table>
4.2 Infrastructure Build-up and Growth Stage (1996~2000)

4.2.1 Infrastructure Build-Up Period (1996~1998)

From 1999 to 2000, the Korean venture capital market grew at an unexpected, explosive rate. The drastic growth of the KOSDAQ market led the huge amount of capital flow into venture capital industry and stimulated triple expansion in the number of venture capital firms. As a result, the capital flow within two years exceeded the accumulated amount of previous capital flows. This phenomenon owed to the observation of emerging venture business as a new economic power.

Growth of Start-Up Venture Firm

After the mid 1990s, the active incorporation and fast growth of venture firms was initiated by the expansion of IT industry. At first, the development of computer technology and communication technology to link computers gave significant growth opportunity to small firms. Second, as the computer and telecommunication technology had converged through internet technology, internet firms were spotlighted through venture capitals and public interest. Third, mobile technology such including pagers, PCS, and cellular business accelerated continuous growth opportunities for small and medium start-up firms. Fourth, software and networking technology expanded the boundaries of business, changing the firm’s operating organization and marketing strategy. As the start-up firms initiated change of technology and ignited expansion of market as a new growth engine of Korean economy, the venture capital industry also experienced explosive capital demand from those firms.

Competition in Venture Capital Firm

In 1995, the registered venture capital firms numbered 48. After the opening of KOSDAQ, their number continuously increased: by five firms in 1996; five firms in 1997: twelve firms in 1998 (notwithstanding the financial crisis, negative growth of 6.75 in GDP, 1.5 million layoffs, and a serious economic recession); 26 firms in 1999, and 65 firms in 2000.
### Table 4-7: Venture Capital Firm and Fund Trend

(Unit: firm, KRW Billion)

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New VC firms</td>
<td>5</td>
<td>5</td>
<td>12</td>
<td>26</td>
<td>65</td>
</tr>
<tr>
<td>New VC fund</td>
<td>4</td>
<td>22</td>
<td>15</td>
<td>82</td>
<td>194</td>
</tr>
<tr>
<td>New Investment</td>
<td>241</td>
<td>361</td>
<td>217</td>
<td>950</td>
<td>2,008</td>
</tr>
</tbody>
</table>

Source: Korean SMBA

### Establishment of KOSDAQ and Growth

The KOSDAQ market for the small and medium start-up firms was established in 1996. It was introduced in response to the new mid-1990s observation that start-up venture had become a leading growth engine in the Korean economy. The government prepared successive promotion programs for KOSDAQ market to grow as a start-up venture oriented market, deregulating the IPO requirement as below:

### Table 4-8: Historical Changes of IPO Requirements

<table>
<thead>
<tr>
<th>Date</th>
<th>Major Changes</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996.3.29</td>
<td><strong>Stock dispersion (General firm: G.F)</strong>&lt;br&gt;- Over 10% dispersion → add over 50 person with less 1% of stocks</td>
<td></td>
</tr>
<tr>
<td>1996.9.13</td>
<td><strong>Stock dispersion (G.F)</strong>&lt;br&gt;- At registration 10% (over 50 person of minor share holder) → add within 1 Year 5%, within 2 year 10% additionally&lt;br&gt;<strong>Stock dispersion (Venture business: VB)</strong>&lt;br&gt;- At registration 5% (over 25 of minor share holder). After registration, within 2 years, 5% dispersion additionally&lt;br&gt;<strong>Debt ratio (VB)</strong>&lt;br&gt;- Industry average 150% → 20%</td>
<td>Deregulation of dispersion requirement&lt;br&gt;Deregulation of debt ratio</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1997.6.24</td>
<td><strong>(VB)</strong>&lt;br&gt;- <strong>Financial requirement:</strong> Delete of debt ratio and financial condition</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Stock dispersion:</strong> 10% → 20%&lt;br&gt;25 person → 100 person</td>
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<tr>
<td></td>
<td><strong>(G.F)</strong>&lt;br&gt;<strong>Dual option for IPO requirement (1)</strong>&lt;br&gt;- paid-in-capital: KRW 10 billion&lt;br&gt;- Asset: KRW 50 billion&lt;br&gt;- Debt ratio: below industry average&lt;br&gt;- Equity: No impaired capital&lt;br&gt;- Dispersion: Over 20%, minor shareholder over 100 persons.</td>
<td></td>
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<tr>
<td></td>
<td><strong>IPO requirement(2)</strong>&lt;br&gt;- History: Over 3 Years&lt;br&gt;- paid-in-capital: KRW 0.5 billion&lt;br&gt;- Debt ratio: Below industry average 150%&lt;br&gt;- Financial: Positive operation income&lt;br&gt;- Equity: No impaired capital&lt;br&gt;- Dispersion: Over 20%, over 100 persons of minor shareholder</td>
<td></td>
</tr>
<tr>
<td>1996.8.6</td>
<td><strong>Dispersion Requirement:</strong>&lt;br&gt;- Over 20% or Over 10% • 2 million stock and over 100 shareholder</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Requirement of Large firm</strong>&lt;br&gt;- Paid-in-capital: Over KRW 100 billion&lt;br&gt;- Impaired capital: Below 50%&lt;br&gt;- Debt ratio: Below 400%</td>
<td></td>
</tr>
</tbody>
</table>

Source: KDI (Korea Development institution) (2001)
The Special Measures Law for Fostering Small and Medium Firms

Through this legislation, the government provided various financing and tax benefits to start-up venture firms and deregulated several limitations required by other laws. These included: paid-in-capital requirement (KRW 50 million → 20 million), permission for stock split for venture firms (KRW 5000 can be divided to KRW 100), permission for foreign investors to acquire 100 percent of stocks for a venture firm, withdrawal of the limitation of firms’ location in the Seoul province, permission for new building construction, and promotion of researchers and professors to build venture incorporation.

4.2.2 IMF Restructuring and Growth Period (1998~2000)

Financial Crisis and Growth Opportunity

Restructuring pressure after the financial crisis gave small, specialized, and light ventures the opportunity to expand their market during the paradigm shift period. While 50 percent of 30 large conglomerates entered into workout or court receivership and shrank their work scope, small firms could take the opportunity to expand their market penetration and absorb the excessive capital from the financial market. Other opportunities came from the spin-off and increased outsourcing needs from large firms. During this period, small firms grew up as the alternative growth engine of the Korean economy.

The major changes in the labor market after the financial crisis of 1998 occurred to the advantage of small venture firms. Until that time, human resource tended to concentrate in the large firm sector. But the laid-off human resource shifted to small venture industry without additional cost in Korea, just as laid-off engineers shifted to Silicon Valley during the restructuring of 1980s in the United States. It is widely known that this shift of engineers became a main power to restructure the US economy under the IT revolution.
Characteristics of Growth Period

Broadly speaking, the collapse of traditional industry and large firms, which had exclusively occupied social capital and human resource, widened opportunities for small venture firms by opening access to resources. The IT industry brought new alternatives, and led small firms to incorporate actively in this industry. Social preference also shifted to venture industry with dynamic energy and individual performance. As a result, people and capital rushed into the small venture sectors.

(Table 4-9) Market Environment and Characteristics in Growth Period

<table>
<thead>
<tr>
<th>Growth Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Venture Capital</strong></td>
</tr>
<tr>
<td>- Increase of Venture capital (50→150 firms)</td>
</tr>
<tr>
<td>- Entry of first generation of VC and individuals</td>
</tr>
<tr>
<td><strong>Source of capital</strong></td>
</tr>
<tr>
<td>- Increase of fundraising</td>
</tr>
<tr>
<td>- Portion of fund is still minor</td>
</tr>
<tr>
<td><strong>Operation of capital</strong></td>
</tr>
<tr>
<td>- Mainly equity investment (Stock and Convertible bond)</td>
</tr>
<tr>
<td><strong>Investment target</strong></td>
</tr>
<tr>
<td>- IT and Internet</td>
</tr>
<tr>
<td>- Increase of biotech sector investment</td>
</tr>
<tr>
<td><strong>Divestment</strong></td>
</tr>
<tr>
<td>- Increase of divestment through KOSDAQ market</td>
</tr>
<tr>
<td>- Venture capital cycle</td>
</tr>
<tr>
<td><strong>VC environment</strong></td>
</tr>
<tr>
<td>- Entry of individuals, first generation venture firms, large firms into venture capital market</td>
</tr>
<tr>
<td>- Entry of Securities firms and Securities trust firms into the pre-KOSDAQ market</td>
</tr>
<tr>
<td>- Increase of corporate venture capital</td>
</tr>
<tr>
<td>- Hot competition</td>
</tr>
<tr>
<td><strong>Economy environment</strong></td>
</tr>
<tr>
<td>- Harsh restructuring to overcome financial crisis</td>
</tr>
<tr>
<td>- Resource shifting from traditional industry and chaebols to the IT and venture sector.</td>
</tr>
<tr>
<td>- Expansion of stock market, low interest rate, restructuring of bank and financial industry</td>
</tr>
<tr>
<td>- Explosive growth of IT industry</td>
</tr>
</tbody>
</table>
4.3 Calibration Stage (2000~2003)

Collapse of IT Bubble and Restructuring

The collapse of tech stock and the dotcoms in NASDAQ after 2000 occurred in Asia at the same pattern. Korea was no exception. The KOSDAQ market index also collapsed at the rate of maximum 70 percent. The shrinking of the KOSDAQ market resulted in the decrease of divestment opportunity and led to the liquidity problem of venture capital firms. This phenomenon also pressed venture capital firms to reduce the new investment, pushing the portfolio firms to be write-offs. Through this turn of events, the venture capital industry was plunged into a negative cycle.

This collapse owed mainly to over-valuation and over-investment in the IT industry—especially the internet piece of the industry. It had to be cured through a harsh restructuring process.

(Figure 4-1) KOSDAQ Index Trend

The US venture capital industry had already experienced two periods of recession and knew
how to overcome them. That first recession had come in the mid 1970s, when the US venture capital industry experienced the collapse of several hundred venture capital firms (SBIC). Then, at the end of 1980s, the stock market collapse came again from over-investment in computer sectors within a short period.

In the case of Korean venture capital, KOSDAQ as an exit market for venture capital industry was located in a particularly unstable position. The recession swept through the venture capital industry with dual impact. KOSDAQ had an excessive portion of individual investors who could not bear short-term economic fluctuations. Furthermore, venture capital firms did not have the structural capacity to control the situation because the corporation type of firms listed on the stock market magnified the impact of market shrink.

Delay of Restructuring
The Korean government, which was an initiator and major investor in the venture capital industry, responded to the unexpected market crash with two actions: first, it strengthened the IPO requirement on the concept that the bubble and collapse of stock market were ignited by loose regulation. Second, the government decided to pour extra capital flow into withdrawing the venture industry artificially with the public capital investment, called as the venture primary CBO. From 2001, the government poured the $US two billion into the venture industry.

But the impact of primary CBO was different from what the government imagined at the time. This capital injection increased the liquidity of inefficient firms, so the primary CBO became a barrier that decelerated the restructuring process of the Korean venture industry. This came to be seen not as the intended medicine that would cure the disease, but only as a narcotic that suspended the deaths of several inefficient venture firms. Historically, any over-investment, over-capacity, or over-pricing could be cured just through harsh restructuring. The inefficient firms should be pushed into the restructuring process with the deep discount of valuation. The harsher the restructuring is executed, the shorter period of recession will be. This was not the case in Korea, as the venture primary CBO made the inefficient venture industry delay the restructuring process with the tightened M&A regulations.
Chapter 5: Business Environment Analysis

Start-up venture industry and venture capital industry can be well established on the accumulation of new technology innovation and superior human capital. And by establishing supporting infrastructure such as a capital market and a professional service market, the venture capital industry can play a large role in expanding the public stock market. The government should play an important role in this growth; namely, it should be the brain of the mechanism. The government can create, stimulate, and control these markets through various tools—regulation/de-regulation (e.g. entry barrier), special promotion programs, financing policies, tax benefits, and incentive program—that influence the venture firms and venture capital industry.

(Figure 5-1) Diagram of Venture Capital Environment
5.1 Government Policy

5.1.1 Overview

Regarding its effort to stimulate the venture industry and venture capital industry, the Korean government’s legislation and policies can be categorized into four sections. The first piece of this role is to provide direct support the venture industry, through incorporating support for start-ups, tax benefits, and financial support. The second part establishes the venture capital industry. The third part is for introducing the M&A market and stock market such as KOSDAQ market as exit channels. Finally, the fourth section is the part for supplying the capital directly to the venture firms, venture capital firm, or its fund. The specific regulations and policies for the four sections are described as below.

(Table 5-1) Regulation and Policy for Private Equity Market

<table>
<thead>
<tr>
<th>Venture Industry</th>
<th>Regulation and Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Special Measures Law for fostering venture business, 1997</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Venture capital industry</th>
<th>Regulation and Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Incorporation supporting laws for Small and Medium firms</td>
<td>• Financing Support Act for the New Technology Business</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capital market</th>
<th>Regulation and Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• KOSDAQ Stock Market Legislation (April, 1997)</td>
<td>• M&amp;A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment/Financing</th>
<th>Regulation and Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pension Fund</td>
<td>• Limited Partnership Fund</td>
</tr>
<tr>
<td>• Venture CBO</td>
<td>• Secondary market</td>
</tr>
<tr>
<td>• Private M&amp;A Fund</td>
<td>• Private M&amp;A Fund</td>
</tr>
<tr>
<td>• DASAN Venture Capital</td>
<td>• DASAN Venture Capital</td>
</tr>
</tbody>
</table>
5.1.2 Policies for Start-up Firm and Venture Capital Industry

The Success Story

The fast growth of the venture industry and venture capital industry at the end of the 1990s could be attributed to the endeavors of the Korean government through the various policies and programs. From the mid 1980s, the government implemented the regulatory system and promotion program for the venture capital industry, as a policy to motivate the high tech oriented small and medium firms. In the mid 1990s, the government opened the KOSDAQ market as a capital channel to the small and medium size firms and an exit tool for the venture capital firms. Then, the government became involved in directly supporting start-up venture firms through legislation with the Special Measures Law for Fostering Venture Business of 1997. By building up these supporting systems, the government had initiated and driven the development of new industry, start-up venture industry, and venture capital industry. The government actively implemented various policies to distribute social resources into high tech ventures, venture capitals, and the KOSDAQ market. These deregulation and incentive programs were widely admitted to be the most successful policies of that period.

Since the financial crisis of 1997, the Korean government has focused on restructuring its economy. Post-crisis government programs have aimed to increase the role of small firms (those with fewer than 300 employees) in the economy, particularly by enhancing financing to technology-based start-ups. On the equity side, the government provided direct infusions of capital through Venture Capital Firms (VCFs) and Limited Partnership Funds (LPFs). Generous equity guarantees for venture investors as well as preferential tax incentives were given to qualified investors. Attempts were made to encourage business angel activity, and the KOSDAQ stock market for start-ups (established in 1996) was reinforced.

The venture policies were extraordinarily successful at building up the new market and stimulating public concern. At the same time, though, they are blamed for igniting the excessive bubbles that resulted in an ineffective over-allocation of social resources and moral hazards.
Venture Verification Program

The Korean government has since implemented a selective supporting policy. This policy, called the venture verification program, established the category of start-up venture and provided selective venture firms with financial support and tax benefits through the Special Measures Law for Fostering Venture Business 1997. The policy contributed to the growth of the venture industry by allocating social resources to the venture industry and pushing to restructure conglomerates and traditional manufacturing firms.

But the venture verification program resulted in several problems. First, it lured high-tech venture firms to be categorized into the verification requirement so that it might manipulate the inefficient resource allocation.

Second, it allowed inefficient firms to get the venture verification so that it might create reverse selection, social cost, and moral hazard, given that the government verified venture firms and gave them the special of being listed in the KOSDAQ market under waived requirements. This provoked firms to use non-market factors, such as bribe, venture broker, lobby, and technical decoration, to gain these privileges. We can find the same situation in the US SBIR program. One study found that SBIR grants are likely affected by intensive political lobbying (Lerner 2000). SBIR program might also not foster growth of small firms in technologically intensive industries in a welfare efficient manner.

The third problem with the Korean venture verification program was the administrative burden. The selection and monitoring of over ten thousand firms incurred an enormous administration expense.

Fourth, these special government benefits might change the high-risk nature of the start-up industry, weakening the competitive strength of the risky venture industry. start-up venture firms should be identified as high risk-taking businesses. Fifth, government involvement might deteriorate the development of market function. As a result, Korean government has been pressed to shift its policy from government verification to market verification.
Venture Primary CBO

The government’s excessive support of the venture industry was briefly discussed in the earlier chapter on the history of the Korean venture industry. One of the main features of this initiative was the venture primary CBO, which was prepared to support venture firms experiencing the liquidity problem after the IT bubble collapse. US$ Two billion was distributed to 850 firms after the collapse. After three year later, US$ 500 million was classified as write-off assets, and US$1.2 billion also should be extended for the second term on the consideration of portfolio firms’ financial condition.

This venture primary CBO program had positive impacts to the industry as well as negative impacts. As a whole, its unclear distribution system led to ineffective resource distribution in the Korean economy. The program appeared to support venture firms but it actually extended the life of inefficient firms, suspending the restructuring and M&A activities requested by the venture industry. I would argue that the Korean government might change its role, not by building up the market and driving the growth of size and direct investment to the firms, but by monitoring and supporting the market to work by its own mechanisms.

5.1.3 New role model

The real problems in the venture capital industry lay not in increasing the amount of fundraising, but in establishing an effective market system that can allocate its capital more efficiently, thus promising firms with high valuation. We should not forget the key definitions of venture capital industry on which the market is established: innovation, high risk-taking, information asymmetry, and risky asset class. The government ought to pursue policies that will strengthen the advantages and lessen the disadvantages inherent to the industry.

Deregulation (From Government to the Market)

First of all, an advanced venture capital system and principles should be adopted. For this purpose, Korean government has to deregulate various barriers prohibiting market function in the venture capital industry: namely investment guidance rules that prohibit independent
investment decision; seed money investment of venture capital firms into the fund; and reward program without incentives. It is recommended for the government to permit the limited partnership type of venture capitals without paid-in-capital while venture capitalist strengthen the terms of private contract and pursue the differentiation in the private contracts.

Supply of Long-term Capital

The investment patterns in venture capital industry will be decided by the characteristics of capital source. This way, the government can control the market by guiding the characteristics of capital flow into the industry. Expanding the capital sources from the pension fund or institutional investor with a longer-term investment horizon than individual investors can make the venture capital and KOSDAQ markets more stable in the long run.

Fund duration also might be extended from five years to eight or ten years so that the fund duration expansion can solve the mismatching problem between fund duration and exit timing. This move can also motivate early stage investment and long-term investment. The investment from the pension fund can be a good solution for supplying the long-term stable capital into the private equity market.

Establishment of Fair Market

Within the venture capital market, information asymmetry is so high that the value of information is also higher than in other markets. Because the Korean venture capital market has a comparatively short history, fund performances and the track record of each venture capitalist were not accumulated for the future investors. Therefore, it is important to secure the transparency of information in two main areas: first, through fund performance disclosure in the venture capital industry; and secondly, through company performance disclosure in the KOSDAQ stock market. The disclosure of fund performance can not be forced by regulation but, if possible, the Korean Venture Capital Association can play a role in information gathering and publication. In particular, the funds that received the public capital from the government and pension fund should be required to disclose the fund performance and asset conditions.
5.2 Limited Partnership

5.2.1 US Venture Capital Organization

Closed-End Fund and SBIC

Venture capital pool is usually organized by the limited liability partnership in the United States. Other types include Closed End Fund and Corporate Venture Capital. Sahlman (1990) showed that during the 1980s when venture capital grew significantly, two-thirds of the risk capital pool were organized with the type of limited liability partnership, and the remaining one third were organized with the type of corporate venture capital, closed-end fund (9 percent), bank subsidiary (14 percent), and SBIC (8 percent).

To understand the contemporary situation of venture capital in the United States, it is important to review its history. Before the US pension funds entered the venture capital investment, the main source of fundraising was closed-end fund, a type of which the ARD established in 1946. This was a prevailing type for venture capitalists in the 1960s and 1970s. Small business investment companies (SBICs) had also played an important role in the venture capital market by the end of 1960s for the purpose of remedying the venture capital industry in short supply of capital and catching up the Soviet Union`s launching of Sputnik in 1957. SBICs were private corporations licensed by the Small Business Administration (SBA) to provide professionally managed capital to risky companies. To encourage their investment, the SBICs were allowed to supplement their private capital with SBA low-cost loans from government, and they were also eligible for certain tax benefits. In return, SBICs were subject to certain investment restrictions, including limitations on the size of the companies in which they invested and restrictions on the acquisition of controlling interests. In response to the government’s active promotion and the availability of low-cost money, 692 SBICs licenses were granted during program’s first five years.

The SBIC program, however, suffered several defects. First, SBICs concentrated on providing debt financing to small business that had positive cash flow. Second, SBICs attracted mainly individual rather than institutional investors. Third, the program could not
attract investment managers of the highest caliber because of its lack of reward systems. By 1977, the number of SBICs has fallen to 276. However, at the end of 1990s, closed-end type investment firms reentered into market in revised forms, including ICG, CMGI, and Media Lab.

**Limited Partnership**

From the 1980s, the limited partnership (LP) type has mainly replaced the role of closed-end fund. The limited Partnership form traces its origin to 1969, when it was seen as a way of avoiding SBIC-type investment restrictions and attracting more sophisticated investors than the retail individual shareholders of publicly traded SBICs. Limited partnerships also addressed the problem of compensation for the private equity professionals. But during the 1970s, due to the weak stock market and recession, the initial public offering market disappeared, especially for smaller firms. As a result, limited partnership in the 1970s were not used for start-up investment but rather for restructuring investment and high risk projects like oil exploration and real estate development.

By 1977, public concern had focused once again on the shortage of capital available to finance new ventures. Venture capital associations recommended change in many areas, including: Employee Retirement Income Securities Act (ERISA) regulation, taxes, and securities laws as a way of revitalizing the venture capital industry. The most significant change was the Department of Labor decision pertaining to the “prudent man” provision of ERISA governing pension fund investing in 1979. The second change was another decision of the Department of Labor in 1979 to grant partnership, as venture capital operating companies, a “safe harbor” exemption from plan asset regulation which left them subject to prohibited transactions. A third major change came from Congress with the introduction of the Small Business Investment Incentive Act of 1980, which rendered private equity partnership not as investment advisors but as business development companies. The evolution of the limited partnership in combination with the numerous favorable regulatory and tax changes spurred the flow of capital to private equity market.

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1 “The Economics of the Private Equity Market,” Geoerge W. Fenn and Nellie Liang
As pension funds and institutional investors started the large scale of investment from 1979 when the regulatory and tax changes were implemented, the main stream of venture capital fundraising was changed from the closed end type fund or mutual fund to the LP type fund established by just small number of the limited partners.

**Relationship between the Management Firm and Limited Partnership**

Venture capital management companies and limited partnership have double-layered structures: venture capital management companies, paper partnership, and limited partnership. This structure resulted from limitation of legal responsibility and maximization of tax benefits.

(Figure 5-2) Relationship between the Venture Capital and Limited Partnership

5.2 Korean Venture Capital Organization

**Unique Structure; Venture Capital Firm**

The Korean model stands in unique contrast to the US types discussed above. Korean venture capital firms are formed as a corporation type into which shareholders invest their capital as the paid-in-capital. Shareholders operate it by themselves or hire management team and specialists to operate it. The venture capital firms also establish venture funds to be invested by the outside investors as limited partners. Therefore Korean venture capital organization is the mixed organization of corporation and venture fund, resulting in different problems from the US venture capital industry. In the Korean venture capital industry, the portion of firm’s
capital (paid-in-capital and borrowing) in investment capital pool had covered 70 percents, and portion of LPF had covered 30 percent historically. As the exit opportunity decreased due to the weak IPO market, the venture capital firms increased the portion of LPF for securing investment capital. As a result, the portion of LPF increased to 70 percent in 2003.

(Figure 5-3) Korean Venture Capital Structure

Historical Background
When the Korean government introduced the Venture Incorporation Supporting Law and Financing Supporting Law for the New Technology Business to expand the venture capital industry on 1986, they seemed to benchmark the Small Business Administration (SMA) and the Small Business Investment Company (SBIC) of the US venture capital industry, as the SBIC was also a government driven structure. That the Korean government could regulate the venture capital as a corporation type like the SBIC, it established the Small and Medium Business Administration (SMBA) with the same role as the SMA. The Korean venture capital firm had several similarities with the SBIC in terms of the limitation in the investment target, distribution capability of the low cost government capital into the small size venture
firms, and eligibility for being listed in the stock market with individual investors.

Another type of venture capital firm was the Non-Banking Financing firm such as KTAC, established in 1974; KTDC (Korea Technology Development Corporation, which was renamed KTBNetwork) as the leading venture capital firm in Korea; KDIC, established by the IFC and ADB in 1982; and KTFC, established by the Korea development bank.

### 5.2.3 Problems of Corporation Type Organization

#### Conflict of Interest

While US venture capitalists depend on outside capital, Korean venture capitalists operate on two kinds of capital pool: their own capital and outside capital. Due to this crucial difference, Korean venture capitalists tend to be exposed to the more serious moral hazards of taking advantage of outside funds, as leverage, to support their own capital (Paid-in-capital and borrowing).

#### Regulated Market and Immature Private Contract

The Korean venture capital industry is mainly regulated by the government. This government control threatens to weaken the greatest advantages of limited partnership, such as private contract. The disadvantages of regulation could be compensated for by the advantages that venture capital firms can receive from several government benefits: tax benefits and various incentive programs. Therefore, even though the venture capital market has grown, the active private contract could not develop under this regulation. The private contract system was developed to make rules that can be applied to the repeated deals for efficient productivity, maximizing the common interests of investors and operators with certain terms and conditions. But the lock-up system in Korea is regulated not by the contract between the limited partners, general partners, and underwriter but by the government regulation. This is the main reason Korean venture capital industry had a weakness in the private contracts.
Un-matured Venture Capitalist

To solve the weaknesses of venture capital firms, the limited liability partnership was developed by venture capitalists who felt that the previous reward system was not able to compensate their performances and that the traditional organization structure limited their efficiency.

Under the corporate type venture capital system, venture capital firms rather than individual capitalists would be emphasized so that outside investors would depend on the stability of shareholders or management teams of the firm instead of the individual capability of one venture capitalist. This tendency eventually became a barrier in the emergence of professional venture capitalists.

Incentive Program

In the United States, corporate venture capital and subsidiary venture capital of financial institutions have a corporate-type structure, the same as Korean venture capital firms (Hellmann, 1997, 1998: Gompers and Lerner, 2000). It is remarkable that they recorded lower return of investment than other normal venture capital firms, even though they have the advantage of technology and marketing capabilities. This low return of investment is thought to be due to the weakness of the internal incentive system. This corporate type venture capital has a fundamental weakness in providing adequate incentive systems and transparency of the operation to the venture capitalist. Lee In-Chan, in his interviews of 2001, reported that Korean venture capital firms had distributed four to 20 percent of gains to the employees in case of corporate capital and 20 to 40 percent of gains in case of fund capital. Almost all capital gains were owned by the venture capital firms and minor portion of capital gains could be distributed to venture capitalists in Korea.

Investors to the Venture Fund

The Korean venture capital market developed due to the initiation of government policy, and the government has remained a strong player. The government is still the largest investor to
venture funds in Korea. This was especially the case after 2000 when the contribution of private investors shrunk in the stock market recession and the government portion in fundraising increased.

Corporate investors followed in Korea as the second largest investor in the venture capital market. The high portion of corporate investors can be explained by two reasons: tax benefits and venture certification programs. The Korean government implemented a tax benefit program to motivate the conglomerates to invest the venture capital fund; under this benefit, corporations were permitted to consider their capital investment to venture fund as technology development expenses, so that they could enjoy the tax reduction. The second reason, the venture certification program, provided a wide range of benefits such as low-cost capital borrowing and the less strict conditions in the IPO process. Through the participation into venture fund, large size firms could invest the small firms as a limited partner who can influence the portfolio firms, create a strategic relationship, and make the portfolio firms to enjoy the benefits of venture certification program.

(Table 5-2) Investor Portion of Venture Fund

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount</td>
<td>171</td>
<td>455</td>
<td>1,414</td>
<td>731</td>
</tr>
<tr>
<td>Number of fund</td>
<td>26</td>
<td>74</td>
<td>187</td>
<td>89</td>
</tr>
<tr>
<td>VC portion</td>
<td>17%</td>
<td>15.2%</td>
<td>15.9%</td>
<td>20.2%</td>
</tr>
<tr>
<td>Government</td>
<td>14.3%</td>
<td>15.3%</td>
<td>18.1%</td>
<td>32.2%</td>
</tr>
<tr>
<td>Foreigner</td>
<td>0.3%</td>
<td>1.4%</td>
<td>4.4%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Pension fund</td>
<td>0%</td>
<td>0%</td>
<td>1.8%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Institution</td>
<td>26.2%</td>
<td>13.6%</td>
<td>9.3%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Individual</td>
<td>8.6%</td>
<td>21.2%</td>
<td>17.7%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Corporate</td>
<td>33.6%</td>
<td>33.3%</td>
<td>32.8%</td>
<td>27.6%</td>
</tr>
</tbody>
</table>


Here, it is useful to look to the United States model to shed light on certain phenomena in the Korean market. In the US venture capital market, the large scale of long-term capital took 70
to 80 percent portion, a major portion of fund sources, with the 40 to 50 percent coming from pension funds, and 30 to 40 percent from foundation and institutional investors. On the other hand, in the German venture capital market, institutional investors took 60 percent of fund sources and pension fund just took just below 10 percent.

By contrast, in Korea, the government, corporations, and individuals took almost 70 percent of fund sources. The high portion of corporation and individual involvement can be explained as the result of the tax benefits and venture certification program. This shows that capital allocation to the venture capital industry seems to be stimulated not by the competitive investment return in the venture industry but by the government incentive program.

Since the venture capital industry did not prove its competitive strength through long-term ROI (with the exception of a few venture capital firms), and since it revealed symptoms of moral hazards, the Korean venture capital industry ought to emphasize three new programs: first, a fund performance disclosure system that can reveal the return on investment of each fund; secondly, a reward program that can align the fund manager to the investors’ interest; and finally, an advanced fund management standard that can induce the large-scale investors like pension funds.

(Table 5-3) Comparison of Capital Source for the Venture Fund

(Unit: %)

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th></th>
<th>Germany</th>
<th></th>
<th>Korea</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporation</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>15</td>
<td>32.8</td>
</tr>
<tr>
<td>Individual</td>
<td>11</td>
<td>17</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>17.7</td>
</tr>
<tr>
<td>Government</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>18.1</td>
</tr>
<tr>
<td>Pension fund</td>
<td>42</td>
<td>38</td>
<td>-</td>
<td>9</td>
<td>-</td>
<td>1.4</td>
</tr>
<tr>
<td>Endowment</td>
<td>18</td>
<td>22</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Institution</td>
<td>15</td>
<td>18</td>
<td>63</td>
<td>64</td>
<td>6</td>
<td>9.3</td>
</tr>
<tr>
<td>Others</td>
<td>11</td>
<td>3</td>
<td>17</td>
<td>2</td>
<td>62</td>
<td>4.4</td>
</tr>
<tr>
<td>Investment firm</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>12</td>
<td>15.9</td>
</tr>
</tbody>
</table>

Source: Black and Gilson (1999) and Korean Venture Capital Association
Investment Portion of Venture Capital Firm

Even though the portion of venture capital firms in the capital source has decreased continuously (recorded from 15 to 20 percent), it is still high compared to the one percent in the US venture capital industry. It showed to become a burden for the venture capital firms to be exposed to liquidity problem and to be de-motivated for the next fundraising under the depressed market conditions.

Fund Duration and Investment Pattern

In Korea, the average fund duration was reported as 5.16 years and the average extension was 2.36 years, compared to the 10 years of venture fund duration in the United States. This short term of duration created a mismatch problem between fund duration and investment/exit opportunity and, as a result, pressed venture capital firms to invest in the venture firms mainly in expansion stage or late stage.

Another problem of fund duration mismatch is the trial of an early IPO, the potential that venture capital firms try to divest their invested capital through grandstanding. In the Incorporation Supporting Act for small and medium companies, venture fund is required to have the more than five years of duration and can be extended by the resolution of two third of investors. But the average fund duration remained 7.5 years including extension period. The short-term investment tendency of limited partners and the short-term of office in venture capital management team magnified this mismatch problem and made market situation unstable in the Korean venture capital. The IPO of immature start-ups decreased the stock market credit with inferior performance under the projection.

As the venture capital firms are listed for themselves, they are pressed to make continuous and stable earnings by the individual shareholders who have short-term investment horizon, compared to the institutional investors.
5.3 Taxation

In the late 1990s, Korea introduced a number of tax incentives aimed at increasing investments in both Venture Capital Firms (VCFs) and Limited Partnership Funds (LPFs). These incentives included income tax reductions and exemptions from securities transaction taxes and capital gain taxes.

Corporate and individual investors in VCFs and LPFs can deduct up to 15 percent of the amount invested from their consolidated income tax base, provided that share is held for at least five years. In addition, dividend income received from VCFs and LPFs is not included in the consolidated income tax base, but is subject to separate withholding taxes. Capital gains taxes are not levied on gains that individual realize from the disposal of VCF and LPF shares. Corporations and institutional investors are also entitled to exemptions from capital gains taxes on disposal of investments in LPFs. VCFs and LPFs themselves are eligible for several preferential tax provisions. Dividend income received from start ups or venture business is exempt from corporate income tax. VCFs can deduct up to 50 percent of investment losses from their corporate income tax base. Capital gain taxes are waived for the disposition of shares of venture businesses, while securities transaction taxes are not levied on disposal of shares in venture businesses when acquired for investment purposes.

With regard to start-ups and venture firms, income or corporate tax is reduced by half for newly established Small and Medium Enterprises (SME) during their first six years, beginning with the first year they generate a tax-based profit. Local acquisition and registration taxes are not levied on assets acquired by venture businesses within the first two years. Property taxes are reduced by 50% for the first five years after establishment.

The government also introduced a stock option plan to help start-up firms: gains on the exercised three years are not taxed on amount up to KRW 30 million, provided that stock options are exercised three years after being granted.

Although these tax schemes are still relatively new, they seem to be playing a role in stimulating individual investment in venture capital firms.
5.4 Capital Market

5.4.1 Capital Market Trend

In the Asian financial crisis, the unbalanced structure of financial market tilted to the banking system. This imbalance may delayed the recovery of financial systems and exacerbated the credit crunch. In theory, bank loans and direct financing through the capital market are likely to be complementary, offering different mechanisms for risk-sharing. So in order to introduce diverse risk-sharing schemes and improve pricing functions in financial markets, Asian countries were required to develop capital markets.

In the case of Korea, the corporate bond market maintained strong growth since the late 1970s. When the financial crisis erupted in 1997, bonds accounted for 16 percent of corporate external financing. Equity also covered about 15 percent of outstanding corporate financing in 1997. Overall, direct financing including equity, bond, and the short-term bills comprised about 40 percent of corporate financing, compared to only 36 percent from bank loan.

The trend in 1980s and 1990s that capital markets were important venues for corporate financing has further strengthened in the post-financial crisis years. Equity financing has surged, raising the portion of direct financing in the external financing of non-financial firms to 43 percent in 2000, while the portion of loans diminished by 4 percent since 1997. The KOSDAQ market, among other factors, generated this change.

5.4.2 Changes after Financial Crisis

Since the financial crisis of 1997, the Korean economy has been experiencing fundamental structure changes. The most visible changes are the innovations in the financial markets.

Chronologically, the first change was the opening of domestic financial markets to foreign investors. This led to the surge of foreign investment into the Korean financial markets,
particularly into the stock market. As a result, foreign holdings hovered to the 40 percent of market capitalization of Korea Stock Exchange market in 2002.

The next change occurred in the government bond market. Before the crisis, all government-related bonds were digested through the forced allocation mechanisms with issuing prices above the market levels. Consequently, there was a minimal secondary market activity. Reforms implemented since 1997 have created large scale and active government bond markets.

The third change was the creation of new securities markets, including the KOSDAQ stock market and derivatives markets such as option and future markets. The KOSDAQ stock market exhibited dazzling growth during the post-crisis years. After the collapse of the bubble, the KOSDAQ market faced a serious recession, and it is now facing a recovery from 2003.

### 5.4.3 Current Issues

After the financial crisis, many Korean financial institutions received cash investment or debt-equity-swap through the Korea Asset Management Corporation (KAMCO) or Korea Depository Insurance Corporation (KDIC). As a result, those financial institutions became government owned corporations. The Korean government has a plan to divest its capital injection through privatization of major financial institutions. Domestic financial industry showed concerns about selling those financial institutions to the foreign investors. There are some movements to acquire those financial institutions by using buyouts fund platform into which domestic investors or banks can invest.
5.5 IPO Market (KOSDAQ)

5.5.1 Needs for the EXIT Market

The main reason of venture investment is not on acquisition of shares or management control, but on realizing the capital gains through selling shares after equity investment and value creation activities. Exit means realizing the expected gains into cash or equivalents for investors. In order to realize the gains from the securities of unlisted firms, investors should find outside investors such as investors in the stock market, third party investors out of stock market, major shareholders, or buyback from the invested firms.

Regarding the exit market, the relationship between government policy and market formation can be identified by considering three main issues: First, establishing a venture capital industry requires the inevitability of an exit market, and these processes require special policy and programs driven by the governments. Second, because exit is the stage at which firms have contacts with a lot of general investors, this stage requires lessening the information asymmetry. Third, the exit market must exceed beyond the venture capital industry and meet the needs of whole capital markets.

5.5.2 Type of EXIT Market

The countries in which venture capital and start-up venture industries are activated are the countries that have the active exit channels through the stock market (e.g., US and England), or the countries that use other country’s exit channels (e.g., Israel and Ireland). On the other hand, the countries in which venture capital and the start-up venture industry are not activated are the countries that failed to activate the exit markets, even though they have technologies and human resources (e.g., Germany and Japan). Gompers and Lerner (1999, 205P) showed that the differences in the venture capital industry among the US and EU countries owes to the provision of the exit market to the venture capital by the speedy recovery of the stock market after the stock market collapse of 1987.
The United States

The United States has well-developed stock markets and corporate control markets with both IPO and M&A channels. In the United States, venture capitalists exited 1,059 cases through IPO between 1991 and 1996. Annually, an average of 175 firms was exited through IPO. Venture-backed IPO increased from a 10 percent in the 1980s to 30 percent during the 1990s. In 1990, 56 percent of IPOs was venture-backed firms.

(Table 5-4) Exit Type in USA

<table>
<thead>
<tr>
<th>Year</th>
<th>VC-backed IPO</th>
<th>Sales (M&amp;A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>42</td>
<td>109</td>
</tr>
<tr>
<td>1992</td>
<td>160</td>
<td>94</td>
</tr>
<tr>
<td>1994</td>
<td>143</td>
<td>99</td>
</tr>
<tr>
<td>1996</td>
<td>276</td>
<td>94</td>
</tr>
</tbody>
</table>

(Table 5-5) Exit Type in Germany (1995)

<table>
<thead>
<tr>
<th>Buyback</th>
<th>Sales of firm</th>
<th>Block sales</th>
<th>IPO(AIM)</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>166</td>
<td>74</td>
<td>8</td>
<td>12(11)</td>
<td>4</td>
<td>264</td>
</tr>
</tbody>
</table>

Black and Gilson (1998)

Germany

In Germany, buyback—meaning that the invested venture firm buys the share back from investors—registered as the largest exit channels with 63 percent. Acquisition by the third party also recorded the second high portion with 28 percent, while IPO recorded just 4.6 percent. This marked difference from the US model can be explained by the fact that EU countries had the bank oriented financial system and the banks had a strong enough power enough to negotiate with the portfolio firms for the buyback.
5.5.3 Difference of Exit Markets (KOSDAQ and NASDAQ)

Definition of KOSDAQ

KOSDAQ stands for Korea Association of Securities Dealers Automated Quotation. The KOSDAQ market is an auction or order-driven market where trading of equities issued by small and medium size firms is fully automated via the KOSDAQ Electronic Trading (KETRA) System.

Control Power

As a new equity market, the KOSDAQ market shares a common economic purpose with the NASDAQ. The KOSDAQ market is a self-regulated market by the Korean Stock Dealer Association (KASD), while being owned by number of stock market related institutions. Regardless of its outer institutional structure, however, in reality it is closely governed and controlled by the government. Therefore, although the KOSDAQ market resembles the NASDAQ in the sense that both markets are self-regulated by the Stock Dealer Association and both markets exist outside of traditional exchange market, the KOSDAQ is different from the NASDAQ in the sense that the Korean government plays a much greater role.

(Table 5-6) Ownership Structure of KOSDAQ Stock Market, Inc.

<table>
<thead>
<tr>
<th>Ownership Share</th>
<th>Mall Business Corp.</th>
<th>Korea Securities Finance Corp.</th>
<th>Korea Association of Securities Dealers</th>
<th>Korea Securities Depository</th>
<th>Korea Stock Co.</th>
<th>Securities companies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23.77</td>
<td>16.64</td>
<td>10.37</td>
<td>9.51</td>
<td>7.13</td>
<td>32.58</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Korea Stock Dealer Association (KSDA)
(Table 5-7) Regulatory Structure in KOSDAQ Market

KOSDAQ Stock Market Inc.
- Market management
- System operation
- Corporate disclosure

KOSDAQ Committee
- Rules & Regulation
- Listing Qualification
- Market Surveillance

Korea Securities Dealers Association
- Legal establisher of the KOSDAQ Stock Market

Financial Supervisory Commission
Rule, Regulatory & Supervision

Ministry of Finance and Economy
Policy and Law

Internal Structure
Another difference between the KOSDAQ and the NASDAQ is its internal market structure. The NASDAQ is a quote-driven market and, as its full name indicates, it is structured around securities dealers. But KOSDAQ is a misnomer since dealers have no role in the KOSDAQ market. Actually KOSDAQ is an auction or order-driven market. There is no market maker or designated liquidity provider in the KOSDAQ market.
(Table 5-8) Comparison of KOSDAQ and NASDAQ Market

<table>
<thead>
<tr>
<th></th>
<th>KOSDAQ</th>
<th>NASDAQ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target firm</strong></td>
<td>Small and Medium firm</td>
<td>Small and Medium firm</td>
</tr>
<tr>
<td><strong>Internal Structure</strong></td>
<td>Auction market</td>
<td>Dealer market,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Actually order driven market)</td>
</tr>
<tr>
<td><strong>Control Power</strong></td>
<td>KASD (Actually Government)</td>
<td></td>
</tr>
</tbody>
</table>

5.5.4 History of KOSDAQ

The OTC Market (Forerunner of KOSDAQ)

Korea Stock Exchange (KSE) was established as the first regulated stock market in 1953. Until 1987, Korea had one regulated market (KSE) and one unregulated market (Over-the-Counter or OTC market). While the KSE grew steadily since the economic take-off in the 1970s, the unregulated OTC market remained negligible.

The Korean government introduced an organized OTC market in 1987 and established registration criteria, designating the KASD as an operator of the market. The government effort to stimulate the OTC market had continued in 1991, when it established an OTC intermediary office in KASD and introduced an automated trading information collection system. The following timeline highlights the main events in the history of the KOSDAQ:

**KOSDAQ Historical Highlight**

1987 April OTC market Systematized under sponsorship of Korea Association Securities dealer(KASD)

1991 Oct. OTC Securities Trading Intermediary floor began operation

1996 May KOSDAQ Securities Co., established

1997 Jan. KOSDAQ stock market opened
April       KOSDAQ stock market legislation passed

1998 Oct.   KOSDAQ Committee established

1999 June   KOSDAQ Securities Co., renamed KOSDAQ Stock Market Inc.

2000 Sept   Surveillance system launched

2001 April  KOSDAQ Committee incorporated as a statuary entity

The number of listed companies increased steadily after 1987. In particular, from 1992 to 1994, new listing surged and the total number of listed firms reached 310 firms at the end of 1994. From 1995 to 1998, the pace of new listing slowed down and total number of listed firms remained almost same level of 330 firms. De-listing suddenly increased mainly due to the transition to the KSE market.

KOSDAQ Stock Market Inc.

In 1996, the Korean government restructured the organized OTC market and re-launched it as the KOSDAQ market in January of 1997. The most significant change was in the trading system; the previous OTC trading system was abandoned and an auction trading system was introduced in its place.

KOSDAQ Stock market Inc. was established as the manager of an auction market, contrary to the impression created by its name. The policy goal of reforming the organized OTC market was to establish a venture business oriented stock market.

The Korean government executed several kinds of actions, including the reduction of transaction fee (0.5 percent → 0.3 percent), expansion of demand infrastructure, permission of indirect foreigner investment, exemption of limitation for buying stocks in over-the-counter market to the institutional investors, and exemption of transaction tax in selling the outstanding stocks.
5.5.5 KOSDAQ Market Trend

New IPO

Between 1995 and 1998, total listings on the KOSDAQ did not increase, compared to the number of the organized OTC market. Since 1999, however, new listing activity grew at an unprecedented rate and the total number of listed firms increased significantly. Altogether 459 companies were newly listed in the three years from 1999 to 2001, more than doubling the total number of listed firms. By the end of 2001, the number of firms listed on the KOSDAQ exceeded that on the KSE market.

After 2001, this trend has turned down. In 2002, 150 firms were listed, and 70 firms in 2003. The number of the de-listed firms has increased to 25 firms of 2002 and 27 firms in 2003 respectively.

(Figure 5-4)

<table>
<thead>
<tr>
<th>Year</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOSDAQ Index</td>
<td>100</td>
<td>75.18</td>
<td>256.14</td>
<td>52.58</td>
<td>72.21</td>
<td>44.36</td>
<td>44.87</td>
</tr>
<tr>
<td>Number of new IPO</td>
<td>83</td>
<td>8</td>
<td>104</td>
<td>178</td>
<td>167</td>
<td>150</td>
<td>70</td>
</tr>
<tr>
<td>Number of delisting</td>
<td>55</td>
<td>36</td>
<td>36</td>
<td>33</td>
<td>9</td>
<td>25</td>
<td>27</td>
</tr>
</tbody>
</table>

Source: KOSDAQ Stock Market Inc.
(Figure 5-5) The Type of IPO Listed Firms

(Figure 5-6) The Portion of Venture Firms in KOSDAQ Market
The Portion of Venture Firm in New IPO

The distinguishing characteristic in the new listings after 1998 from those of the early 1990s is the type of firms. In the early of 1990s, most newly listed firms were ordinary business firms. Among 118 new IPOs in 1994, 106 firms were classified as ordinary businesses, while just 12 firms were classified as venture firms. In contrast, venture firms had been driving the recent surge in IPO, significantly outpacing IPO in the ordinary business firms from 1997. In 2003, venture portion recorded to 83 percent, leading KOSDAQ to the designed function as a stock market for the small and medium size starts-up.

(Figure 5-7)
Capital Raising

Data on capital raising during the organized OTC market was hard to come by, but it was known to be minimal compared with the KSE. The stagnant state of early KOSDAQ market dwarfed by KSE had continued until 1997, when capital raising in KOSDAQ amounted to 3 percent of total fund raising in the KSE market.

Capital raising in the KOSDAQ market began gaining strength in 1998, doubling the ratio to 14 percent. The ratio in 1999 remained the same as that in 1998, but because of the extraordinary boom of capital raising in the KSE market, a stable ratio resulted in the huge amount of capital raising in the KOSDAQ, tripling the amount raised in 1998.

In 2000, capital raising in the KOSDAQ market recorded unprecedented growth, considerably outpacing the KSE market so that total capital raising in the KOSDAQ market exceeded that of KSE for the first time. This expansion slowed down in 2001, as the Korean economy fell into recession in the late 2000. This slow-down gave a greater negative impact to the KOSDAQ market than on the KSE. Even so, the KOSDAQ still raised over half (52 percent) as much capital as the KSE did.

(Figure 5-8) Capital Raising Trend in KOSDAQ Market
Regarding to the perspective of investors in the KOSDAQ market in 2001, individual investors became a major investor, with the 58 percent of outstanding KOSDAQ stocks, followed by the institutional investors with 37 percent. On the other hand, foreign investors just recorded 5 percent in the KOSDAQ market, compared to almost 15 percent of stocks listed in KSE market.

This investor profile can explain the higher volatility in the KOSDAQ market than in the KSE market. KOSDAQ market tried to increase the portion of institutional investors and foreign investors. Future of KOSDAQ market depends on the reviving of credit from the investors and transparent information disclosure.
Secondary Market Activity

**KOSDAQ Index**

The KOSDAQ index soared dramatically in 1999 under the influence of the New Economy, but in 2000, it declined as the world economy fell into depression. During this period, KOSDAQ market has shown a strong coupling tendency with NASDAQ.

In 2001, KOSDAQ plummeted under the influence of US terrorist attack, but it recovered before long as listed companies reported good earning performance in early 2002. In 2002, KOSDAQ showed bearish on account of American accounting fraud and scandals, the uncertainty of venture business, and KOSDAQ’s poor performance.

In early 2003, KOSDAQ plummeted again and hit record low (34.64p: March 17, 2003) on account of the US-Iraq war and the North Korean nuclear threat, but recently KOSDAQ has gone bullish gradually accounting to the improvement of IT business performance and investors’ expectation of economy recovery.

(Figure 5-10) KOSDAQ market index

![Graph showing KOSDAQ market index with key points and dates marked.]
Volatility of KOSDAQ Market

Because there are significant differences in the characteristics of firms, the volatility will vary on the basis of risks and characteristics.

In the United States, NASDAQ market recorded over the two times of volatility higher than the NYSE market. In Korea, KOSDAQ market recorded just below the two times of volatility higher than the KSE market. The real problem is that overall volatility in Korea is higher than that in the United States.

KOSDAQ market has a structure problem as well as a regulatory problem. In the portion of market participants, individual investors ranked as a significantly higher portion than institutional investors and foreign investors. In the information circulation and the pricing system, there might be uncertainty and unfairness to induce the adverse selection. The main issue of KOSDAQ might be a reducing of insider trading by using information superiority.

(Table 5-9) Comparison of Market Index Volatility

<table>
<thead>
<tr>
<th>Index</th>
<th>Monthly Volatility (σ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOW Index (NYSE)</td>
<td>4.59</td>
</tr>
<tr>
<td>US NASDAQ Index</td>
<td>11.92</td>
</tr>
<tr>
<td>Korea KOSPI Index (KSE)</td>
<td>11.56</td>
</tr>
<tr>
<td>Korea KOSDAQ Index</td>
<td>22.09</td>
</tr>
</tbody>
</table>

Period: 1999.1 ~ 2001.7
Source: Regulatory improvement for venture capital industry (Korea development Institution (KDI) 2001, 109 p)
(Figure 5-11) Industry Portion in KOSDAQ Market

Source: KOSDAQ Stock Market Inc.
5.5.6 Key Issues for Regulation

1) Information Asymmetry and Agency Problem

NYSE and KSE are the markets for matured firms that can provide more information for investors in public market, while NASDAQ and KOSDAQ are the market for the small and medium size, growing firms that can not comparatively provide such a wide range of information to investors. This difference means that KOSDAQ and NSDAQ markets might have higher levels of information asymmetry, requiring more tightened regulation policy in the market.

NASDAQ Market

NASDAQ does not have additional requirements of information disclosure and prohibition of inside traders, compared to NYSE. It seems to respond to the information asymmetry issue by adopting the market supporting responsibility to the market dealer, as an agent.

NASDAQ market is a kind of dealer market, different from the NYSE and KSE. It requires IPO firms to have a minimum of three deal-makers at the time of IPO, and market dealers have the responsibility to accept the transaction requested by the investors in stock market, under the rule of market supporting responsibility. In other words, they are assigned to the specific market supporting responsibility.

KOSDAQ Market

KOSDAQ market does not a difference in the information disclosure and market supporting responsibility but implements a “Lock-Up” system to regulate insider trading, while NASDAQ solved the agent problem by strengthening the role of dealers. In the long-term, KOSDAQ market should move to strengthen the responsibility of underwriter and market makers to stabilize the market. This movement has same direction to strengthen the role of securities companies not as a broker for brokerage but as an investment bank.
2) Lock-Up System

Korean government, at first, introduced Lock-Up system with the name of KOSDAQ Development Plan for market stabilization issued on Dec. 1999, for the purpose not only of protecting from the sudden drop of stock price after IPO by the bulky sales from major shareholders, but also keeping the major shareholders from realizing improper capital gains by selling their stock listed, given that they do not open the inside information to the stock market.

**NASDAQ Market**

*(Table 5-10) NASDAQ Rule 144*

<table>
<thead>
<tr>
<th>Investment Period</th>
<th>Within 1 Year</th>
<th>1 year ~ 2 Years</th>
<th>Over 2 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest shareholder, Special related person</td>
<td>Prohibition of sales</td>
<td>Possible to sell, but regulate the volume of sale within 3 months*</td>
<td>Possible to sale, but Regulate volume of sale within 3 months</td>
</tr>
<tr>
<td>General shareholder</td>
<td>Prohibition of sales</td>
<td>Possible to sell, but Regulate the volume of Sale within 3 months</td>
<td>No limitation</td>
</tr>
</tbody>
</table>

* Total sales volume can not surpass the 1 percent of outstanding equity or average weekly trading volume for 4 weeks.

**Private Contract at the Time of IPO**

Underwriters in the US must follow a rule to make contracts with insiders to keep them from selling within a certain period from one month to several years (usually a minimum of 180 days). In the United States, the lock-up system by private contract is based on the reasoning that investment itself took longer than one or two years because private equity investments used to have a characteristic of long-term investment.
Evaluation of KOSDAQ Market

There are a few key differences between the regulatory systems in Korea and the United States. The Lock-Up system applies to the KOSDAQ market but not the KSE market. This is a main difference between the two countries, in that the Lock-Up system applies to all IPO processes on both NYSE market and NASDAQ. Secondly, the Lock-Up system of KOSDAQ market applies only to the limited shareholder, compared with the wide range of all private placement and inside persons in the NASDAQ and NYSE markets. Third, the Lock-Up system of KOSDAQ market is enforced as a public regulation by the government, compared to the private contract between the underwriter, shareholders of private placements, and insiders in the United States. Fourth, in Korea, there is no regulation for limiting the capital gains by short-term transaction after IPO.

These differences show the great need in Korea to strengthen the responsibilities of underwriter, while the public regulation to the specific shareholders might be eliminated.

(Table 5-11) Comparison of Lock-Up System

<table>
<thead>
<tr>
<th></th>
<th>Korea</th>
<th>The United States</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Market</strong></td>
<td>KOSDAQ</td>
<td>NASDAQ, NYSE</td>
</tr>
<tr>
<td><strong>Target Shareholder</strong></td>
<td>Largest shareholder Venture capital</td>
<td>-All shareholder of private placement (Rule 144)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-All of insiders on the decision of underwriter (Private Contract)</td>
</tr>
<tr>
<td><strong>Controller</strong></td>
<td>Government</td>
<td>-Government (Rule 144)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Underwriter (Private contract)</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>Assigning the responsibility of market stabilization</td>
<td>-Exclude the short-term investor by the inside information (Rule 144)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Invented for the responsibility of underwriter (private contract)</td>
</tr>
</tbody>
</table>
5.6 M&A Market (Corporate Control Market)

5.6.1 Legal System for M&A

The main axis of the M&A legal systems in Korea runs between commercial law and security law. The commercial law stemming from Continental law systems tends to be too strict to be flexible and absorb the economic needs, while the securities law stemming from the United States and the United Kingdom is based on public announcement and ultimately lacks detailed laws and rules for protecting investors.

After the financial crisis, a flurry of laws was enacted to restructure financial and corporate institutions and improve corporate governance. Many of these laws concern and regulate M&A activities in Korea.

Regulations of M&A in the United States

Regulatory systems in the United States were brought into being by the Securities Law (namely, the William Act of 1934) and other laws related to public offering for acquisition. The William Act is a law that regulates information disclosure, public offering conditions, and protection related to the public offering in acquisition. Corporate laws in individual states regulate various protection methods from hostile acquisition; these laws generally concern acquisition method of equity, rights of requesting buyback, and limitation of consolidation of firms.

5.6.2 Forming of Corporate Control Market

A brief history of the Korean M&A market is useful at this point to understand the strengths and weaknesses of the contemporary market. Earlier, starting from 1968, the Korean government tried to bring up a capital market in order to execute an economic growth strategy without inflation or increase of foreign debts. Then, in 1973, public offering was actively stimulated by Corporate Public Offering Promotion Act 1973 for the same purpose. In an
effort to assuage corporate owners (the largest share holder) who worried about losing corporate control through public offering, the Korean government regulated the limitation of acquisition for the major portion of corporate stocks to secure the corporate control power in favor of the founders.

The Korean stock market did not function as the corporate control market until 1997. The M&A market in Korea were actively formed after March 1997, when the Securities Law, Article 2000 prohibited the acquisition of stocks over 10 percent. This ultimately prevented hostile M&A deals through acquisition of major portion of stocks and public offering. The features of this law are as follows:

**Securities Law Article 200**
- Major share holder: permitted acquiring its stocks up to the portion at the time of IPO
- Other share holder: Kept from acquiring stock up to 10 percent
- Additional acquisitions were subject to the public offering in the market, buying from the major share holders, or special approval of SEC of Korea.

1993 ~ April 1997: the early M&A market

In the advent of deregulation for Securities Act Article 200, several M&A deals were stimulated. This period can be referred as the early stage of the Korean M&A market. Public offering was used as a main tool for M&A deals, for the purpose of business diversification and acquisition of non-banking financing firms.

**Deregulation of Securities Act, Article 200 (March, 1997)**

A significant moment in the history of the Korean M&A market arrived when the Securities Act, Article 200 was deregulated in March of 1997. With the deregulation, government policy shifted from over-securing largest shareholder control power to admitting market functions to decide corporate control power. At the same time of the deregulation, additional rules were introduced to describe M&A deals, methods, and limitations.
### (Table 5-12) De-regulation of Securities Law, Article 200

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Tender offer</th>
<th>5% rule</th>
<th>Minority right</th>
<th>Proxy solicitation</th>
<th>Treasury stock</th>
<th>Merge, Business transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Introducing compulsory public offering</td>
<td>- Expanding the entities to report</td>
<td>- Setting of holding period to protect over-usage</td>
<td>- Mandatory submission of reference documentations</td>
<td>- setting of reasons prohibiting for treasury stock</td>
<td>- Deleting of evaluation and coordination power of SEC for M&amp;A</td>
</tr>
</tbody>
</table>

**April, 1997 – Mid of 1999**

After the financial crisis, the Korean government introduced new laws or changed various laws in order to handle a bulk of Non-Performing Loan (NPL) and implemented restructuring processes for the distressed financial institutions and big conglomerates as well as improving corporate governance system.

As mergers, M&A, and reduction of capital were simplified, the Korean government merged and de-listed merging a large number of financial institutions. Through this government drive, sales of inefficient business line of conglomerates, mergers of subsidiaries, and exchange and/or acquisition of business divisions between conglomerates were executed.

Because of the immature M&A market, misbehavior and excessive ownships of major shareholders intruded the interest of other numerous minor shareholders so that all kind of limitations were deregulated, regarding the acquisition of equity.
Mid 1999 ~ Present

From the end of 1999, as KOSDAQ was stimulated through restructuring of financial institutions and big Conglomerate, M&A activities like A&D, back-door listing, and CRC were introduced to the market just for the capital gain.

New regulations in the KOSDAQ market were then introduced for regulating issuing price and merging price. The supervision of indirect listing through the merger of listed firms and unlisted firms was strengthened to prohibit back-door-listing.

5.6.3 M&A Promotion Program

September, 2000
- In order to introduce the on-going corporate restructuring that inefficient firms can be expelled by market mechanism, the government stimulated M&A market.
- M&A special fund was introduced and the procedure for public offering in the case of M&A deal was simplified (Reporting requirement was changed from pre-reporting to the post-reporting)

July, 2003
- Under the condition that performance of firms was deteriorated and capital market function of KOSDAQ collapsed, government promoted M&A activities for the purpose of recovering KOSDAQ market and providing venture capital industry with exit channels.
- Loosened IPO requirements of M&A deals
- Tightened delisting standards.
### 5.6.4 Comparison of M&A Wave

(Table 5-13) M&A Waves in USA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristics</strong></td>
<td>Horizontal merger</td>
<td>Vertical merger</td>
<td>Conglomerate merger (Unrelated area)</td>
<td></td>
</tr>
<tr>
<td><strong>Cause</strong></td>
<td>Sherman Antitrust Act 1890</td>
<td>1920s economic boom</td>
<td>Antitrust policy. Managerial opportunism.</td>
<td>Deregulation (airline, trucking, telecommunication) Antitrust policy FRB credit policy Macroeconomic change Tax reduction</td>
</tr>
<tr>
<td><strong>Result</strong></td>
<td>-Consolidation (4277→257 firms) -Monopoly -Efficiency -Secondary market</td>
<td>-Emerging of national-wide player -Reduction of capacity</td>
<td>6107 transactions</td>
<td></td>
</tr>
<tr>
<td><strong>Remarks</strong></td>
<td>-Get rid of chronic Excessive capacity</td>
<td>Get rid of Excessive capacity</td>
<td></td>
<td>Get rid of excessive capacity</td>
</tr>
<tr>
<td></td>
<td>Financial capitalism</td>
<td>Managerial capitalism</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Table 5-14) M&A Waves in KOREA

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristics</strong></td>
<td>Diversification of business</td>
<td>Big deal, restructuring</td>
<td>Financial gain</td>
</tr>
<tr>
<td><strong>Cause</strong></td>
<td>Deregulation of securities Law</td>
<td>Financial crisis 1997</td>
<td>KOSDAQ market boom</td>
</tr>
<tr>
<td><strong>Result</strong></td>
<td>Several M&amp;A Transaction for entering the new business, especially financing business, by chaebols and new emerging firms</td>
<td>Restructuring of chaebols, Merger and delisting of distressed financial institutions</td>
<td>Back-door-listing, Acquisition and Development (A&amp;D)</td>
</tr>
</tbody>
</table>
5.7 Institutional Investors (Pension Fund, Bank)

Pension Fund

Guiding Capital Resources to Flow into Venture Industry
As part of the 1997 Special Measures Law for fostering Venture Businesses, the Korean government enacted liberalized provisions for venture capital investments by institutions, including banks and pension funds. Under the special law, banks are allowed to freely invest in the private equity activities. Actual investment did not occur until 2000, because internal regulation of the institutions was not prepared. In 2001, the government revised regulations for the national pension scheme to allow it to invest in LPFs. It was a similar action, to the Department of Labor decision pertaining to the “prudent man” provision of ERISA governing pension fund investing in the United States. A continuing concern, however, is the extensive government role in the banking system, pension funds as well as the VCFs and LPFs. The partially-funded National Pension Scheme, created in 1988, suffers from structural imbalances and lack of private sector savings.

The reason that minimal ratio of pension fund was invested to private equity market is related to the financial structure of pension fund and social security system of Korea. There is no corporate retirement pension fund but the public pension fund operated within the government budget such as National Pension Fund, Teacher’s Pension Fund and Military Pension Fund. These funds have large scale of fund size but do not have not the capability to invest aggressively in high risk-high return products because of their poor financial performance.

The National Pension Fund is an exception. I started venture capital investment in 2002 and CRC investment in 2003. It is a significant event to change investment pattern of pension fund from minor investment to the large-scale investment.

But this change has a problem in the fact that it was initiated, not by the market decision to maximize investment gain, but by the political decision of the government to promote the venture industry. Private equity market should provide the attractive investment return and
transparency to induce the large scale of investment from the pension fund.

(Table 5-15) Private Equity Investment of National Pension Fund

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund Size</td>
<td>90,368.6</td>
<td>109,545.6</td>
<td>131,515.9</td>
<td>133,430.1</td>
</tr>
<tr>
<td>Venture Investment</td>
<td></td>
<td>45.5</td>
<td>169.8</td>
<td>173.5</td>
</tr>
<tr>
<td>CRC Investment</td>
<td></td>
<td></td>
<td>70.7</td>
<td>70.7</td>
</tr>
<tr>
<td>Stock Investment</td>
<td>2,338.4</td>
<td>2,951.6</td>
<td>3,864.6</td>
<td>4,022.3</td>
</tr>
</tbody>
</table>

(Unit: KRW billion)

Source: Publication of National Pension Fund

5.8 FDI Environment

Foreign investment in Korean venture capital was very low. This is in spite of the fact that Korea has taken a number of steps since 1997 to liberalize conditions for foreign direct investment (FDI). The ceiling of foreign shareholding in individual companies was abolished by the Foreign Investment promotion Acts of 1998. The number of business lines where FDI is restricted was reduced from 27 in 1997 to 4 in year 2000 (e.g. telecommunication). The government also recently lifted restrictions on foreign investment in venture-backed companies. Foreign equity investors in LPFs are now considered under regular foreign investment rules and are not required to receive advance approval for their venture investments.
Chapter 6: Data Analysis of Venture Capital Market

6.1 Venture Capital Firm

(Figure 6-1) Number of Venture Firms and Venture Capital

<table>
<thead>
<tr>
<th>Year</th>
<th>86~98</th>
<th>99</th>
<th>2000</th>
<th>2001</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>New registrations</td>
<td>81</td>
<td>26</td>
<td>65</td>
<td>4</td>
<td>176</td>
</tr>
<tr>
<td>De-registrations</td>
<td>9</td>
<td>11</td>
<td>5</td>
<td>6</td>
<td>31</td>
</tr>
<tr>
<td>Accumulation</td>
<td>72</td>
<td>87</td>
<td>147</td>
<td>145</td>
<td>145</td>
</tr>
<tr>
<td>Average paid-in-capita (KRW)</td>
<td>10B</td>
<td>12.4B</td>
<td>21.4B</td>
<td>22.2B</td>
<td>22.1B</td>
</tr>
</tbody>
</table>

Amount of paid-in-capital in venture capital industry (2001, 149 firms)
- Over KRW 10 Billion: 67 firms, 45%
- KRW 10B~20 Billion: 42 firms, 28%
- KRW 20B~30 Billion: 22 firms, 15%
- Over KRW 30 Billion: 18 firms, 12%

Source: SMBA and KVCA
6.2 Fund Raising

Since 2000, new fund raising has drastically declined, due to the recession in the venture capital market and the drop of return on investment. Another reason for sluggish fund raising was that many venture capitalists could not find investment opportunities and, even now, keep significant amounts of capital un-invested.

Given that almost all of the funds were raised during a five year period beginning in 1998, a number of funds will close early in 2004, venture capital firms will be pressured to divest their portfolios and secondary markets and M&A markets as exit channels will be spotlighted.

(Figure 6-2) VC FUND RAISING (KRW100M)

<table>
<thead>
<tr>
<th>Year</th>
<th>86 ~ 98</th>
<th>99</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Fund Raising</td>
<td>117</td>
<td>82</td>
<td>194</td>
<td>90</td>
</tr>
<tr>
<td>Raised Money</td>
<td>10,804</td>
<td>4,885</td>
<td>14,341</td>
<td>7,910</td>
</tr>
<tr>
<td>Number of Fund Closing</td>
<td>24</td>
<td>26</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>Closed Money</td>
<td>1,495</td>
<td>3,096</td>
<td>1,847</td>
<td>1,462</td>
</tr>
<tr>
<td>Accumulated Number of Fund</td>
<td>93</td>
<td>149</td>
<td>325</td>
<td>395</td>
</tr>
<tr>
<td>Accumulated Money</td>
<td>9,309</td>
<td>11,098</td>
<td>23,592</td>
<td>30,359</td>
</tr>
</tbody>
</table>
US Private Equity Fund Raising

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventures Number</td>
<td>297</td>
<td>459</td>
<td>653</td>
<td>331</td>
<td>108</td>
</tr>
<tr>
<td>Amount(U$bil)</td>
<td>31.3</td>
<td>61.9</td>
<td>106.9</td>
<td>40.7</td>
<td>6.9</td>
</tr>
<tr>
<td>Non-ventures Number</td>
<td>185</td>
<td>172</td>
<td>180</td>
<td>147</td>
<td>64</td>
</tr>
<tr>
<td>Amount(U$bil)</td>
<td>74.1</td>
<td>70.5</td>
<td>86.8</td>
<td>59.8</td>
<td>31.5</td>
</tr>
</tbody>
</table>

- Source: Thompson Venture Economics, NVCA
- 1998 ~ 2002 VC: Non VC (Mezzanine/Buyouts) ratio = 43: 57
  In 2002, ratio of Non VC became to 82%
- 2002 Fund Size: (VC) U$64M, (Non VC) U$492M
6.3 Investment

Total Amount of Investment

Since 2000, the market size of venture investment has decreased dramatically. The amount of venture investment in 2002 was just 26.8 percent of that in 2000.

It is assumed that the total venture investment asset base will continue to grow and reach KRW 4 trillion due to delays in liquidating assets through IPOs. However, delaying the liquidation of funds results in a negative financial cycle which further worsens market conditions, reduces new investments and accelerates the economic recession. Interestingly, secondary market and M&A demand, which have continuously increased during the same period, are expected to continue to grow as well.

(Figure 6-4) VC Investment (KRW100Million)

VC: Venture capital   NBF: Non-Banking Finance (6 firms)
KTB, KDB, TG Venture, Samsung Venture Capital, GIBO Capital, MIRAE Asset Capital
US venture capital market had grown at the rate of 197.8% between Year 1998 and Year 2000. Because of shrinkage of IPO market, US venture investment of year 2002 also reduced to the level of Year 1998. As of March 2002, return on investment for one year recorded minus 22.3%.
Source: SMBA/KVCA
Investment Size

In Korea, venture investment focused primarily on early stage investments. As a result, the average investment size hovered around 1 million dollars. However, after 2000, as the IT bubble burst and the investment capacity of venture capital decreased, the investment size fell by almost 50 percent.

Between 1998 and 2001, the average recorded share ratio per unit investment reaches 12 percent. Even though venture capital firms create consortiums for large scale investment, the total share of venture capital funding in pre-IPO firms during this period fell below 20 percent. Especially when compared to the US venture market, this ratio represents a significant decline from traditional averages which reveal pre-IPO venture share ratios of between 60 and 70 percent.

This unique phenomenon whereby VCs invest a smaller amount and possess a lower share
ratio is in large part influenced by the culture of Korean entrepreneurs who want to retain a majority share of their firm even after receiving venture capital investment. However, this procedure severely limits the influence venture capitalists have on invested firms.
Resource of Investment Capital

Since 2000, the proportion of limited partnership funds as a percentage of total investment resource allocation has increased. In 2002, limited partnership funds reached 53 percent of the total capital investment and surpassed the portion of venture capital firm funding (47 percent). 70 percent of new investments came from limited liability funds in 2001.

This trend highlights the fact that limited partnership funds have replaced the role played by traditional venture capital firms. Additionally, this trend is likely to continue because of the liquidity problems faced by venture capital firms due to the shrinkage of the IPO market which has decreased their capital injection capabilities in direct venture investment. However, the increase in fundraising and fund investment by venture capital firms can be explained by their belief that in a bear market they can create revenue through the management fees which cover office operating costs.
Industry Portfolio

In recent years, the highest proportion of investment from Korea’s venture capital industry has been directed toward the IT industry. Investment in IT has been followed by investment in traditional industry, the entertainment industry, and the bio industry.

From 1998 to 2000, the portion of IT investment as a percent of total VC investment reached about 65 percent. However, due to the recession in the IT industry, its proportion has steadily decreased since then. IT investment dropped to 50 percent in 2002 and is estimated to fall to 44 percent in 2003.

Compared to the United States, the proportion of funding headed toward the entertainment and traditional industry is relatively high. These trends can be explained by the fact that these industries have short-term IPO returns which are favorably viewed by the more stable VC firms.

In 2003, bio investment in Korea reached 8.3 percent. While this is only a fraction of the 23.5 percent driven toward the industry by United States firms, its share has continuously increased from 4.7 percent in 2001.
The United States invested a high portion in the IT industry—a round 50 to 60 percent. Since the collapse of the IT bubble, the bio industry has become the leading growth engine in the US venture capital industry.

![VC INDUSTRY PORTFOLIO in USA](image)

**Investment Stage**

The most serious challenge facing the Korean VC industry is the excessively high portion of funding driven toward early stage investment (funding for companies 1 to 3 years old). The expectations established during the mid 1990’s for extremely high returns in the IT industry resulted in the over supply of capital to the IT venture firms. Competing investment opportunities for start-ups began to become standard in the industry. As a result, since 2001, VC funding for early stage investments has increased dramatically. Start-up investments dropped from 37% to 18% after the IT bubble’s collapse.

In Korea, stage investment methods are not wide-spread and there are fewer specialized VC firms for specific growth stages. As such, the increase in early stage funding has not been
followed by an expansion of late stage investment.

Until 2000, start-up and early stage investment in the United States accounted for about 37 and 38 percent of the total funds market respectively. In 2001, though, the percent of funds channeled toward start-ups dropped to 18% while early stage funding increased to about 57%.
The fact that the US venture capital industry emphasized the follow-on investment is well known. Lead investors have the responsibility to facilitate further, more mature investments when the start-up firms grow and seek additional funds. In Korea, however, follow-on investment has not become a significant proportion of the total investment market and signifies a key difference in the long term investment strategies within the US and Korea.

(Figure 6-13) Follow-On Investment Trend in US
6.4 Valuation

Until 2000, investments over US $10 million accounted for 47% of the total VC investment pool. Since then, however, this proportion has dropped to 16% and has been accompanied by a declining valuation for VC funded companies. In the IT sector, the drop of valuation was larger than in the bio sector.
6.5 Exit Market

(Figure 6-16) KOSDAQ IPO TREND

(Figure 6-17) KOSDAQ IPO PORTFOLIO (%)
Resource of financing in venture firms

A survey conducted by the Korean Corporation Association found that the largest source of funding within venture firms came from the government (39.3%), followed by loans from financial institutions (35.9%), venture capital firms (12.0%), IPO offerings (2.3%), and angel investors (1.4%).

(Figure 6-18)

Source: KOSDAQ Stock Market Inc.
6.7 Return on Investment

Even though the venture capital industry had a 23 year history in Korea, it is very difficult to compare the return on investment due to the infrequent disclosure of fund performance by such firms. On the basis of information released by Ministry of Commerce, Industry, and Energy, Return on Equity (ROE) ranged from 2 to 3 percent between 1989 and 1995—lower than the interest rate on savings. The new technology financing recorded a high ratio, however, due to the professional experience in the industry and the diverse financial arranging capability such as low cost government loans.

But actual profitability looked lower than that announced by the government. Analysis conducted by Oh Sae Kyung comparing ROE among different investment alternatives between 1989 and 1995 indicated lower ROE within the VC investment world. Further underscoring the volatility within the VC industry, his work revealed small but positive profitability amongst the firms in 1995 (0.1 percent) and 1996 (7.1 percent) and then negative profitability in 1997 (-3.6 percent).

<table>
<thead>
<tr>
<th>(Table 6-1) ROE Comparison for Investment Alternatives</th>
<th>(Unit: %)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.1</td>
</tr>
<tr>
<td>New Tech financing</td>
<td>6.9</td>
</tr>
<tr>
<td>Non-banking</td>
<td>15.8</td>
</tr>
<tr>
<td>Commercial Bank</td>
<td>5.9</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>(Table 6-2) Profitability of Venture Capital Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995 Average</td>
</tr>
<tr>
<td>(11 Firms)</td>
</tr>
<tr>
<td>ROA</td>
</tr>
<tr>
<td>ROE</td>
</tr>
<tr>
<td>ROI</td>
</tr>
<tr>
<td>Earnings from Non investment Capital</td>
</tr>
</tbody>
</table>

Source: Oh Se Kyung (2000)
During 1999, due to the rapid growth in the KOSDAQ market and the activation of venture capital industry, ROE was recorded at 37.6 percent and ROA at 10.8 percent. However by 2000, ROE and ROA had decreased to the 20.1 and 8.5 percent respectively.

(Table 6-3) Historical ROE and ROA of Venture Capital Firms

<table>
<thead>
<tr>
<th></th>
<th>Net Income (A)</th>
<th>Operating income (B)</th>
<th>Paid-in-capital (C)</th>
<th>Asset (D)</th>
<th>(A)/(C)</th>
<th>(A)/(D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>445,461</td>
<td>517,223</td>
<td>1,184,727</td>
<td>4,136,766</td>
<td>37.6</td>
<td>10.8</td>
</tr>
<tr>
<td>2000</td>
<td>346,853</td>
<td>460,523</td>
<td>1,729,723</td>
<td>4,104,410</td>
<td>20.1</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Source: Korea Venture Capital Association

Note: Above chart was calculated by the Income statement of 1999 and 2000

Year 1999: 73 venture capital firms
Year 2000: 138 venture capital firms

In July of 2001, the Small and Medium Business Administration (SMBA) officially released the profitability of the VC funds invested by the government. The SMBA survey targeted the 40 funds which were invested by the government from 1987 and which closed in 2001. Total investment was KRW 43.8 billion and total return recorded KRW 7.38 billion. Average fund duration was 7.3 years and IRR recorded 10.5 percent.

Notably, the IRR from funds which closed after 1998, when the KOSDAQ market experienced rapid growth and the functions of venture capital firms were most activate, was 23.9 percent or 13.4 percent higher than average. The IRR of the funds closed after 2000 was 20.2 percent.

The IRR of the US venture capital industry reached just over 20 percent in the mid 1980s, and 22.55 percent in the early of 1980s. Both of these returns were higher than the any one of the other competitive financial products in the country such as US treasury bonds, interest rates offered by commercial banks, or returns from the S&P Index.
Chapter 7: CRC Market

7.1 Emerging of CRC Market

IMF Crisis and Emerging of CRC Market

A sudden hike of interest or exchange rates exposes the problems of the Korean economy. As of the end of 1997, fourteen of the top 30 Korean conglomerate were insolvent or dismantled. The advent of the Korean financial crisis severely increased the number of bankrupt firms and which raised the default risks for Korean banks to the degree that the economy soon faced a desperate emergency. To resolve this crisis, KAMCO procured the bad debt owned by banks, and the Korean government poured 137.5 trillion won (97.11~01.6) through KAMCO, the Korea Deposit Insurance Corporation, and The Bank of Korea. It was an inevitable action under the economic emergency as the industry risks spread throughout the entire banking system.

Even though this ad hoc action successfully solved the bad debt problem of several Korean banks, if market mechanisms can not establish a means to solve future restructuring issues the Korean economy will be threatened by future bad debts from the industry and banking system. The potential that a recession could hit the Korean economy due to bad debts needs to be seriously considered in light of the fact that over 70% of GDP is generated by export, meaning global economic fluctuation would directly impact to the small open economy of Korea.

In order to prevent such an event from reoccurring, the Korean government would have to pour a huge amount of capital into the financial system and burden the public in order to stabilize the financial system. Therefore, the Korean government should have established an on-going corporate restructuring system operated by market mechanism.
Funding (Table 7-1)  
(Unit: Trillion Won, March 2002)

<table>
<thead>
<tr>
<th></th>
<th>Funding</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAMCO</td>
<td>Bond Issuing</td>
<td>20.5</td>
</tr>
<tr>
<td></td>
<td>Borrowing</td>
<td>1.5</td>
</tr>
<tr>
<td>KDIC</td>
<td>Bond issuing</td>
<td>83.5</td>
</tr>
<tr>
<td></td>
<td>Borrowing</td>
<td>3.5</td>
</tr>
<tr>
<td>Bank of Korea, Korean Government</td>
<td>19.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total fund raising</td>
<td>128</td>
</tr>
</tbody>
</table>

Input (End of 1997 – May 2002)

Total Input: 156.3 Trillion won  
Reinvestment: 32.3 trillion won  
Net Input: 124.1 Trillion won

Input Method

Asset acquisition from distressed financial institutions  
Increase of Paid-in-capital  
Payment to the deposit account

Collection (Table 7-2)

<table>
<thead>
<tr>
<th>Method</th>
<th>Collection</th>
<th>Ratio</th>
</tr>
</thead>
</table>
| KAMCO                                       | International bidding  
Auction, ABS  
Sales of AMC/CRC/CRV | 27.2       | 70%   |
| Korea Deposit Insurance corporation        | Collecting of investment  
Sales of asset  
Dividends of bankruptcy | 15.4       | 16%   |
| Bank of Korea, Government                   | Collecting of investment  
Subordinate Debt | 4.3        | 23%   |
| Total                                       | 46.9       | 30%   |

Source: KAMCO
7.2 Case Study of Restructuring Business

Among the countries that have recovered from financial risk Mexico and Japan are referred as the worst cases while the United States, is certainly considered the most successful. Korea and Malaysia are also considered among other successful cases. In the case of Korea, KAMCO is the most powerful Asset Management Company (AMC) body into which all of the bad debts flowed. It acquired bad debts from sound banks as well as distressed bank. But Malaysia limited itself just to buying large size bad debt from leading banks.

The RTC of the United States is not be classified as an AMC to handle bad debts but rather as a special body to execute the bankruptcy process for the distressed S&L. To overcome the financial crisis in the end of 1980s, The United States assigned FDIC to solve the leading bank’s problem and RTC to solve the S&L problem. The RTC drove the distressed S&L to transfer their assets and liabilities into a sound bank or other S&L.

In terms of short-term bulk sales of bad debts, Korea was the most successful case. Korea made a turning point for restructuring by selling bad debts rapidly. But considering the long-term goal to enhance the asset value by financial and operational restructuring, Korea’s changes do have some limitations—especially when compared to the structural changes made by Malaysia.

Countries that have successfully restructured exhibit common factors which are described below. First, in the process of dealing the bad debts, governments have been actively involved and made the execution of restructuring processes as a top priority within their countries. Second, the AMC or another special body to deal bad debts was established. Third, special legal authorities and positions were assigned to the AMC, sometimes by special laws. Therefore it was common that the AMC was established as a temporary agency. Fourth, in order to support the acquisition of bad debts from banks, governments set up additional funds and provided substantial capital for the restructuring process. Fifth, various sale techniques and bulk sales bidding techniques were actively used.

In the process of introducing market systems to deal with this issue, new financial instruments called NPLs or junk bonds were established as effective restructuring tools. When dealing
with bad debts, corporate restructuring businesses were introduced in order to enhance the value of distressed assets and firms. As the economy showed signs of stabilization and recovery, the value of the bad debts increased. The success factors of these restructurings were revealed as the previously bad debt began to sell quickly and, in turn, activated real corporate restructuring to enhance the value of bad debts and establish the on-going restructuring system in the economy.

(Table 7-3) Comparison of Restructuring Process to Financial Crisis

<table>
<thead>
<tr>
<th>Organization</th>
<th>Korea</th>
<th>USA</th>
<th>Malaysia</th>
<th>Japan</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KAMCO (97–) Temporary org.</td>
<td>RTC (89–95) Temporary org.</td>
<td>Danaharta (98–) Mid-term</td>
<td>RCC (98–) Long-term</td>
<td>4 AMC (98–) Long-term</td>
</tr>
<tr>
<td>Principle</td>
<td>-Sales oriented -Restructuring</td>
<td>-S&amp;L liquidation -Asset sales -Restructuring x</td>
<td>-Restructuring oriented -Asset sales</td>
<td>-Auction, Collection -Asset sales -Restructuring x</td>
<td>-Formal function -Asset sales -Restructuring x</td>
</tr>
<tr>
<td>Legal capacity</td>
<td>-Speedy sales -Lack of restructuring capacity (Strength 3)</td>
<td>-dealing S&amp;L bankruptcy -Small FDIC (Strength 4)</td>
<td>-Omission of auction -No needs of approval from creditors -Possible extension of fund (Strength 5)</td>
<td>-Impossible of large scale sales (Strength 2)</td>
<td>-No authority of AMC to reorganization (Strength 1)</td>
</tr>
<tr>
<td>Acquired asset &amp; Funding</td>
<td>-All assets of financial institution -Input of non-public fund</td>
<td>-S&amp;L asset (House, real estate) -Input of public finance</td>
<td>-Acquisition of large scale debt -Input of non-public fund</td>
<td>-Acquisition of Bankruptcy asset -Partial input of public finance</td>
<td>-Acquisition of asset from the national banks (Book value) -Input of non-public fund x</td>
</tr>
<tr>
<td>Sales method</td>
<td>-various methods -ABS included</td>
<td>-market oriented various method -ABS included</td>
<td>-Large scale domestic bidding</td>
<td>-Auction oriented sales -partial individual bidding</td>
<td>-Debt equity swap</td>
</tr>
</tbody>
</table>
7.3 CRC Market Evolution

Characteristics of Distressed Debt Market

The distressed debt market is composed of the Non-Performing Loan and Junk Bond markets. In cases where the distressed debt is serving as collateral, a distressed asset market is created with links to the real-estate market. On the other hand, in case where the target of purchasing is not the asset but rather company themselves, an M&A market arise. Therefore the CRC market is actually the broadest market level as it includes both the distressed asset market and the distressed company market.

(Figure 7-1) CRC Market Structure

- Government Policy
  - Speedy liquidation
  - government taking of sales loss
  - Economic recovery through the liquidation of bad debt
  - Financial market stability through the liquidation of bad debt
  - Reorganization of S&L
- Ignoring of IMF recommendation
- International bidding → Leakage of national wealth
- Economy recovery → Increase of collateral value → solve the bad debt problem
- No willingness of inputting public finance
- solve the bad debt problem through the revival of national owned firms

Source: KAMCO Report
Market Development Stage

In the developed countries, specialized Asset Management Companies (AMC) and investors have already existed for each process of restructuring (Valuation for bad debt → Acquisition → restructuring). In the emerging market, the size of bad debt is comparatively large but the resulting sale of bad debt is low because of the limitation of the demand for the bad debt. Further, the legal and regulatory infrastructure is typically not prepared to handle such a development.

Almost all Asian countries are evaluated to position step 3. Korea has already finished step 3 and is now developing a Specialized/Segmented bad debt market in step 4 to pursue the well organized on-going corporate restructuring market.

(Figure 7-2) Development of CRC Market

Step 1. Large scale bad debts in consequence of economic distress

Step 2. Acquisition of the bad debts through a public body

Step 3. Disposition of the bad debts utilizing asset liquidation method special purpose vehicles (ABS, CRV)

Step 4. Specialized /Segmented Bad debt market & On-going CRC market
(Table 7-5) Development of CRC Market in Korea

<table>
<thead>
<tr>
<th>Stage</th>
<th>Period</th>
<th>Market Condition</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>~97</td>
<td>Large scale of NPL resulted from financial crisis</td>
<td>Foreign investors’ anticipation in the distressed financial institutions</td>
</tr>
<tr>
<td>Step 2</td>
<td>98~2000</td>
<td>Formation of NPL market (Purchasing and disposition of NPL)</td>
<td>Purchasing NPL at the deep discounted price</td>
</tr>
<tr>
<td>Step 3</td>
<td>1999~2003</td>
<td>Restructuring for individual firms, led by private sectors</td>
<td>Restructuring investment for individual distressed firms</td>
</tr>
<tr>
<td>Step 4</td>
<td>2004~</td>
<td>On-going corporate restructuring system in place</td>
<td>Buyout investment targeted for (non)-distressed firms</td>
</tr>
</tbody>
</table>

7.4 Segmented Market

7.4.1 NPL Market

Development of NPL Market (Table 7-6)

<table>
<thead>
<tr>
<th>Step</th>
<th>Large Scale Non-Performing Loan</th>
<th>April, 1997~May, 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Reinforcement of function of KAMCO: Acquisition of NPL from distressed financial institutions</td>
<td>Nov, 1999~Dec, 2001</td>
</tr>
<tr>
<td>Step 2</td>
<td>Disposition of NPL by financial institutions including KAMCO through selling off, asset liquidation</td>
<td>Dec, 1998~Dec, 2002</td>
</tr>
<tr>
<td>Step 4</td>
<td>Formation of Segmented/Specialized NPL market</td>
<td>Dec, 1998~2004</td>
</tr>
</tbody>
</table>

Decreasing NPL

In September of 1998, KAMCO initially sold a bulk of NPL that accounted for KWR 207.5 billion to Goldman Sachs through competitive bidding. Following this event, large scale NPL trading in the market was led by several dominant foreign investors, such as Goldman Sachs, Morgan Stanley, and Loan Star. As a result of restructuring efforts in the financial and corporate sectors, NPL trading from these sectors has gradually decreased.
(Table 7-7) Bulk Sale History of NPL by KAMCO

<table>
<thead>
<tr>
<th>Acquirer</th>
<th>Seller</th>
<th>Amount(KRW100M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loan Star</td>
<td>KAMCO, KDIC, CHB Bank</td>
<td>42,000</td>
</tr>
<tr>
<td>Morgan Stanley</td>
<td>KAMCO</td>
<td>35,000</td>
</tr>
<tr>
<td>Goldman Sachs</td>
<td>KAMCO</td>
<td>27,000</td>
</tr>
<tr>
<td>Cerberus</td>
<td>KAMCO, Koram</td>
<td>22,600</td>
</tr>
<tr>
<td>GE Capital</td>
<td>KAMCO</td>
<td>19,000</td>
</tr>
<tr>
<td>Lend lease</td>
<td>Korea Exchange bank, CHB Bank</td>
<td>10,302</td>
</tr>
<tr>
<td>Sonnenblick Goldman</td>
<td>KAMCO Joint-venture CRC</td>
<td>9,466</td>
</tr>
<tr>
<td>Deutsche Bank</td>
<td>KAMCO, Hansol Bank</td>
<td>7,000</td>
</tr>
<tr>
<td>Lehman brothers</td>
<td>KAMCO, Joint-venture CRC</td>
<td>6,103</td>
</tr>
</tbody>
</table>

Source: KAMCO

New Household NPL

By contrast, new NPLs from households are estimated to have increased dramatically since 2001. During the continuous restructuring within the financial and corporate sector, the Korean government has adopted a loose monetary policy of boosting the depressed domestic demand in order to transfer the economic growth engine from exported to domestic consumption. In 2000, the global recession due to the IT bubble's collapse and the resulting over-investment in the industry hit a Korean economy which had just recovered from its own financial crisis. Expanding domestic consumption was an inevitable decision of the Korean government. The world wide recession had spread from the USA to Europe and Japan even though these countries had been the major growth engines in world economy. Korea as a small, open, and export-dependent economy could lead its own economic recovery by boosting domestic demand given that major trading countries experienced a serious recession.

The Korean government boosted domestic consumption with historically low interest rates and loose monetary policy, hoping that the world economy would start to recover within a few years. This strategy provided expected results to the Korean government, with steady growth rate (4 to 5 percent) and strong fundamentals, even though other countries—except China—experienced serious recession and deflation.
But the selection of these policies induced two major problems: new, increasing NPL from the household sector by loose credit control in commercial banking sectors and a bubble in the real estate sector. Nevertheless exports struggled due to the global recession. Firms’ recorded earnings decreased due to the abundance of liquidity released from the restructuring process and real estate prices distortedly increased because of the confluence of lower interest rates and higher asset pricing. These two negative impacts resulted from the policies of boosting domestic demand and can be potential burdens if world economy drops to unstable conditions again by drastic fluctuations in the US currency, the depreciation after a presidential election, or a slow-down of the Chinese economy.

Role of Foreign investors

Overseas private equity which made considerable investments in financial institutions in the wake of the 1997 financial crisis could experience considerable gains as the Korean economy rapidly recovered and these financial institutions could create positive earnings.

<table>
<thead>
<tr>
<th>Financial institution</th>
<th>Foreign Investors</th>
<th>Purchase Price (US$)</th>
<th>Closing price (US$) (End of 2002)</th>
<th>Valuation of Gain (US Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kookmin Bank</td>
<td>Goldman Sachs</td>
<td>16.2</td>
<td>36.7</td>
<td>729</td>
</tr>
<tr>
<td></td>
<td>ING Barings</td>
<td>26.8</td>
<td></td>
<td>126</td>
</tr>
<tr>
<td>Hana Bank</td>
<td>Aliantz</td>
<td>7.1</td>
<td>13.6</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>IFC</td>
<td>4.7</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>Koram bank</td>
<td>Carlyle</td>
<td>5.4</td>
<td>6.9</td>
<td>98</td>
</tr>
<tr>
<td>Korea First bank</td>
<td>New Bridge</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea Exchange Bank</td>
<td>Olympus Capital</td>
<td>7.2</td>
<td>11.1</td>
<td>62</td>
</tr>
<tr>
<td>LG card</td>
<td>Warburg Pincus</td>
<td>25</td>
<td>34.1</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Cherry Stone</td>
<td>27.9</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Good Morning Securities</td>
<td>H&amp;Q Asia Pacific</td>
<td>1.0</td>
<td>5.7</td>
<td>322</td>
</tr>
</tbody>
</table>

Foreign private equity firms with NPL expertise, including Lone Star and Goldman Sachs, earned a high marginal investment return from successful bids for NPLs from distressed
financial institutions. Most NPLs disposed of through the KAMCO auctions were purchased by foreign investors at deep discounts—approximately 10% of the face value at the early stages (1998). Foreign investors acquired NPL amounting to US$14.4 Billion of face value.

<table>
<thead>
<tr>
<th>Date</th>
<th>Buyer</th>
<th>Price/Face</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 1, 1998</td>
<td>Goldman Sachs</td>
<td>12.2%</td>
</tr>
<tr>
<td>May. 27, 1999</td>
<td>Goldman Sachs</td>
<td>16.0%</td>
</tr>
<tr>
<td>July 26, 2000</td>
<td>Morgan Stanley</td>
<td>29.4%</td>
</tr>
</tbody>
</table>

Source: KAMCO

(Figure 7-3) NPL Valuation Trend

Source: KAMCO

7.4.2 Real Estate Market

The Emergence of Foreign Property Investors

For the purpose of improving financial status, many distressed firms seek to sell their real estate assets. The buying spree in the real estate market is facilitated by the fact that many local firms are pressed to sell their buildings at the allegedly low prices to secure the capital necessary for restructuring and to accumulate enough liquidity to prepare for the unexpected fluctuations in economic conditions.
Foreign property investors were delighted at these profitable opportunities at the relatively low price levels. Buying trends for the local large scale office buildings hit a record: KRW one trillion in 2001. The market value of these buildings from 1998 to 2001 amounted to 2,605 Billion won, which was equal to 4.3 percent of six trillion won of the large scale office building higher than 11 stories.

(Table 7-10) Major Properties Purchased by Foreign Investors

<table>
<thead>
<tr>
<th>Building Name</th>
<th>Purchaser</th>
<th>valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seoul Financial building</td>
<td>GIC (Singapore Government investment Corporation)</td>
<td>KWR 355 billion</td>
</tr>
<tr>
<td>I-Tower</td>
<td>Loan Star</td>
<td>KWR 663 billion</td>
</tr>
<tr>
<td>Kumho Group building</td>
<td>Morgan Stanley</td>
<td>KWR 173 billion</td>
</tr>
<tr>
<td>Daewoo securities</td>
<td>Goldman Sachs</td>
<td></td>
</tr>
</tbody>
</table>

REITs and CR-REITs (April, 2001~)

One of the main reasons that restructuring was delayed was the absence of buying power relative to the asset sales. Liquidity issues in real estate investments had reached their weakest point. Therefore newly designed financial products such CRC and CRV were requested to link with the asset market. REIT is a kind of company which can secure the liquidity via stock market offerings. CR-REIT, for example, is a paper company, a type of mutual fund specializing in real estate restructuring with benefits in stemming from asset management and taxation.
7.4.3 Big deal

Debt Structure and Overcapacity
Before the financial crisis, almost all Korean conglomerates had to competitively participate in industries with low cost of capital which induced abnormal financial structures such as cross holding or highly leveraged debt ratios. These manipulations became burdens to the conglomerates with negative earnings or cash-flow. So the Korean government made the recommendation that conglomerates reduce the debt ratio by at least 200 percent and reduce conglomerates' subsidiaries that were experiencing huge losses due to excess capacity or unstable financial structures.

Merger program
The merging plan that resulted among large, leading firms, known as the “Big Deal,” deal, had been announced on October 7, 1998 and the target industries were classified by the characteristics suggested above. However, the industry required a huge amount of initial investment to start business and serious competition between big conglomerates resulted. Most of the Big Deal list were on the high level of debt ratio and were believed to be unable to repay the debts in the market.

7.4.4 CRF Market
Background
Most Korean firms have been suffering from a sharp slowdown in domestic demand as well as international demand for export and have become burdened with highly leveraged debt. The establishment of the Corporate Restructuring Fund (CRF) was designed to revive the medium and small size firms, which were pushed into the default risks by the temporarily soaring interest rate after the financial crisis. Again, it was a paper company, a kind of mutual fund, to invest in the future profitability of new equity or bonds issued by target firms.
Investment guide-line

Investment priorities were start-up firms, especially those with significant potential in either the export market or high-tech industry. Funds can only be invested into the newly issued equity and bonds. Procuring trading securities in the market or from the five big conglomerates or any subsidiary excluded from the target firm. Other major guidelines included the following:

- No more than 10 percent of funds could be invested in one stock or 25 percent within the same business group or sectors
- Minimum number of issues must be at least 25 and the average in the portfolio must be at least 40
- Minimum debt or equity 30%, Maximum cash 20 percent
- Less than 50 percent of a firm.

**Fund Performance (Table 7-11)**

<table>
<thead>
<tr>
<th>Fund manager</th>
<th>Seoul</th>
<th>Arirang</th>
<th>Mugunghwa</th>
<th>Hangang</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of portfolio</td>
<td>Schroder</td>
<td>SSGA</td>
<td>SSGA</td>
<td>Scudder</td>
<td>123</td>
</tr>
<tr>
<td>Paid-in capital</td>
<td>6,000</td>
<td>3,334</td>
<td>3,333</td>
<td>7,000</td>
<td>19,667</td>
</tr>
<tr>
<td>Realized loss</td>
<td>78</td>
<td>2,147</td>
<td>1,115</td>
<td>2,533</td>
<td>5,873</td>
</tr>
<tr>
<td>Loss of stock disposition</td>
<td>1,038</td>
<td>112</td>
<td>65</td>
<td>1,103</td>
<td></td>
</tr>
<tr>
<td>Realized loss (Bond)</td>
<td>4</td>
<td>6</td>
<td>21</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>Net loss</td>
<td>560</td>
<td>-2,917</td>
<td>-810</td>
<td>-2,374</td>
<td>-5,541</td>
</tr>
<tr>
<td>Asset composition</td>
<td>Equity</td>
<td>1%</td>
<td>65%</td>
<td>27%</td>
<td>39%</td>
</tr>
<tr>
<td>Bond</td>
<td>69%</td>
<td>27%</td>
<td>55%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>cash</td>
<td>30%</td>
<td>8%</td>
<td>18%</td>
<td>41%</td>
<td></td>
</tr>
</tbody>
</table>

**Evaluation**

Because, through acquisition of control power, active restructuring processes were impossible, the role of the CRF fund was limited to advising the management. Given that traditional American venture funds were permitted to engage in all kinds of investments including acquisition of control power, portfolio investment and asset acquisition, the prohibition in acquisition of control power became the most critical disadvantage of the CRF program.
7.4.5 CRC Market

Background
As Workout programs to solve the financial problems of Korean firms focused to the big firms, corporate restructuring markets for the small and medium size firms became weak, so that Korean government recognized the necessity to introduce the special private agencies in similar structure to the United State’s vulture fund.

Investment Guide-line
CRC is established as a corporation with the minimum paid-in-capital of KRW 7 Billion. As such, the CRC can purchase and sell all assets—including ownership states—related to the restructured firms. It can drive actual corporate restructuring for the target firms. It can use special funds for securing capital flow and actually playing the role of an AMC. The breadth of its work includes all processes relating to the restructuring of distressed firms such as acquisition of control power or restructuring and sales of assets. Additionally it can directly procure bad debts from banks and KAMCO, play an M&A intermediary role, participate in the CRV, and serve as a deal agent for workout or bankruptcy processes. These roles were motivated by tax benefits.

Operation Results
Until the end of 2001, CRC investment increased at a rapid pace and at year end reached a record level of U$1.33 Billion as a annual investment. In the mean time, CRC has focused on both the NPL acquisition and distressed firms among listed companies. But the CRC market recorded a slowdown in 2002 and entered into a mature stage. The slowdown resulted from the reduction in NPL deal opportunities. At the same time, equity buyout increased and the number of public auctions for the court-receivership firms rose to unprecedented level. M&A deals, initiated by mid to large size firms and conglomerates, has increased dramatically and facilitated business expansion amongst firms that have recovered from the economic recession.
Evaluation

Even though the CRC has many advantages in terms of easiness of incorporation and wide work-scopes, it has a critical limitation in terms of its large scale fund raising so that it is not sustainable as a continuous restructuring business platform. It also has other limitations. First, it is limited in terms of the funding method it uses to issue equity for supplying investment capital because of its legal identity as a corporation. Second, it faces limitations in the distribution of its earnings to investors because it should be a continuing firm. When it uses the CRC fund method for the sale of interest, it requires approval of other investors so that it has an intrinsic limitation for the large amount of fundraising. Therefore in the case of large scale of restructuring for conglomerates, it has a weakness in fundraising. As a result, it must focus on the restructuring of small or medium size firms. Although similar in structure and characteristic to the US vulture fund, the CRC is limited in funding capacity.

7.4.6 CRV Market

Background

After signing the Corporate Restructuring Agreement in June 1998, banks as lenders faced unsolved problem and difficulty in gathering debts because of conflicts of interest between corporate leaders and financial lenders. For example, all of banks had specialists devoted to managing distressed firms. Additionally, in most cases, the previous management team continued to control their firms so that improving the distressed company through restructuring proved difficult if not impossible. Considering the advice for new types of restructuring programs from IBRD and recognizing the needs for changing the main power from banks to private sectors, the Korean government introduced a CRV program by legislation of Corporate Restructuring Investment Company Law, the main purpose of which was to compensate for the weaknesses of previous CRF and CRC programs, such as limitations in acquisition and control of power or the inability to conduct large scale fund raising.

Investment guide line

Financial institutions that have equity stakes or loans can sell or invest the assets of distressed
firms into CRV and then procure equities or bonds. Local and foreign investors can invest their assets by the type of equity acquisition. Because CRV is a kind of paper companies, CRV should assign the investment operation to the asset management company (AMC) that actually plays the role of initiator for restructuring activities. It is a temporary firm that has duration of 6 years and many benefits such as those relating to tax breaks. It can execute any work related to restructuring for the firms via the Workout program.

**Evaluation**

Even though the CRV was designed to improve control issues related to limitations faced by managers within the CRF and fund raising issues within the CRC, this program itself placed limitations on target firms within the Workout firms and agreement firms with financial institutions. However, while it had a fund raising advantage in that financial institutions serve as equity holders, the Korean government passed a special law in September of 2001 called the Corporate Restructuring promotion Act which decreased the opportunity for the financial institutions to establish a CRV.

*(Table 7-12) Sample Cases of CRV Program*

<table>
<thead>
<tr>
<th>Name of Target</th>
<th>Date</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jindo</td>
<td>April 2001</td>
<td>- Creditors meeting for sale method for container division</td>
</tr>
<tr>
<td></td>
<td>May 2001</td>
<td>- CRV rejected,</td>
</tr>
<tr>
<td>Shinwoo</td>
<td>June. 2001</td>
<td>- Decided to implement CRV</td>
</tr>
<tr>
<td></td>
<td>Sept. 2001</td>
<td>- Decreased debt 70B won from 170B won 38B won debt converted as equity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Implemented CRV</td>
</tr>
<tr>
<td>Orion Electric</td>
<td>June. 2001</td>
<td>- Creditors meeting for implementing CRV</td>
</tr>
<tr>
<td></td>
<td>Nov. 2001</td>
<td>- Decided to transfer assets of 1.2 trillion won to CRV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of which 800B won would be converted to equity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- decided on Lon Star as a AMC of CRV</td>
</tr>
<tr>
<td>Dynasty Card</td>
<td>April. 2001</td>
<td>- CRV was implemented by KAMCO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- asset investment 522.6 b won, Capital 173 B won</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Nara Capital acquired loan 475B won</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Hyundai capital acquired 50% equity and control power by budding as 169.5B won</td>
</tr>
</tbody>
</table>
7.5 Summary of Private Corporate Restructuring Market

Corporate restructuring entities are required to have professional skills in corporate restructuring and business management. However, leading financial institutions such as banks have limitations in both restructuring specialties and management skills. Corporate restructuring can be executed in two ways: business restructuring or financial restructuring. Business restructuring can be pursued by changing an entity’s business scopes or business size to accelerate revenue growth and cost efficiency through effective resource distribution. Financial restructuring can be implemented by reorganizing an entity’s financial structure or tax benefits by examining its debt leverage maximization and distress cost by default risk.

In Korea, a top priority was placed on establishing a sound capital structure. In other words, firms should increase equity and decrease debt through selling business lines including assets unrelated to the core business, issuing securities including ABS, reducing debt amount, and/or changing debt to equity ratio. Successful restructuring depends on the capability of an entity to gather bad debts, engage in fundraising and professional skill development for value creation. Compared with the US buyout funds and vulture funds, CRF schemes in Korea are limited in their ability to acquire control over target firms because their asset management is limited to investment in securities. CRC is further limited in large scale fund raising because it is a corporation type under commercial law. Finally, limitations exist in the CRV’s ability to select target firms because only specific firms actually sign the management consignment agreement with financial institutions for restructuring activities.

Therefore, these programs can not play significant roles as on-going restructuring systems or as a means to implement corporate restructuring mechanisms in their economy. On-going restructuring systems need two long-term goals. First, they should be established as market driven restructuring systems. Second, financial markets should be mature enough to initiate large amounts of funding. In addition, restructuring markets should develop stronger relationships with asset, M&A, and liquidation markets. (Table 7-13)
(Table 7-13) Comparison of Corporate Restructuring Program

<table>
<thead>
<tr>
<th></th>
<th>CRF</th>
<th>CRC</th>
<th>CRV</th>
<th>CR-REITs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulatory</strong></td>
<td>Securities Investment Law (Paper company)</td>
<td>Industry Development Promotion Act.</td>
<td>Corporate Restructuring investment company Law</td>
<td>Real estate investment company Law</td>
</tr>
<tr>
<td><strong>Type of Organization</strong></td>
<td>Paper company</td>
<td>Real Corporation</td>
<td>Paper company</td>
<td>Paper company</td>
</tr>
<tr>
<td><strong>Incorporation Requirement</strong></td>
<td>Requirements of Mutual Fund</td>
<td>Paid-in-Capital Over KRW 3B</td>
<td>More than 3 promoters Over KRW 0.5B of Paid-in-capital</td>
<td>Paid-in-Capital Over KRW 50B</td>
</tr>
<tr>
<td><strong>Investment Target</strong></td>
<td>-Promising small and medium firms -Newly issued securities</td>
<td>- Distressed firms - define the firms that need corporate restructuring</td>
<td>Workout firms</td>
<td>Real estate on the restructuring</td>
</tr>
<tr>
<td><strong>Work Scope</strong></td>
<td>-Acquisition of newly issued securities -management consulting</td>
<td>-Acquisition, Sales, Restructuring -procuring of distressed debt -Issuing ABS -Restructuring</td>
<td>-Acquisition and sales of securities and asset - Borrowing and financial support -Issuing of ABS</td>
<td></td>
</tr>
<tr>
<td><strong>Asset Management</strong></td>
<td>Professional AMC</td>
<td>CRC</td>
<td>Professional AMC</td>
<td>Professional AMC</td>
</tr>
<tr>
<td><strong>Management Control</strong></td>
<td>Not Permitted</td>
<td>Permitted</td>
<td>Permitted</td>
<td>Not Permitted</td>
</tr>
<tr>
<td><strong>Operation Method</strong></td>
<td>-Financial institution  -Temporary, -Limited</td>
<td>-Non financial institution -Forever, -No limitation</td>
<td>-Financial institution -Temporary, Limited (5Year, 1Year Extension)</td>
<td>-Financial institution -Temporary, Limited</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td>-Benefit on the Security investment company law</td>
<td>-Benefits in the holding company -Issuing bond -Tax benefits (Separate taxation in dividend tax and non taxation to the capital gain for selling equity share</td>
<td>-Benefit in the transaction of asset -Benefit in the holding company -benefit in the limitation of investment to the financial institution</td>
<td>-Benefit in the real estate investment company -Tax benefit (Corporation Tax and Acquisition Tax</td>
</tr>
</tbody>
</table>
7.6 Details in CRC Market

7.6.1 Legal Structure

In February of 1999, enactment of the Industry Development Act established regulations for Corporate Restructuring Companies. By February 2002, 98 CRCs were registered with the Ministry of Commerce, Industry and Energy (MOCEI). On April 2002, MOCIE announced tighter registration conditions (Minimum paid-in capital increased from 3 billion won to 7 billion won). As a result, 40 unprofitable CRCs retreated from the CRC business. Sixty-two CRCs are registered to MOCIE under the new regulation as of March 2004.

(Figure 7-4) History of Regulation in Restructuring Business
7.6.2 Business Domain

(Figure 7-5) CRC Business Domain

- Normal
- Normal Company Buyout
- Large overseas private equity
- Distressed asset PE & Investment bank
- Overseas
- Debt Buyout
- Equity Buyout
- Equity (Management)
- Equity (Portfolio)
- Investment Instruments
- Chapter 11

7.6.3

Work Scope

- Restructuring investment on target firm
- Acquisition of target firm
- Turnaround and sale of target firm
- Acquisition of NPL from commercial banks and KAMCO
- Acquisition of assets or business from target firm
- Establishment and management of corporate restructuring partnership fund (CRPF)
- Agent service regarding workout, court receivership service
- M&A advisory
Industry Development Act Guideline: The Scope of Target Firm

- A firm that has defaulted on payments more than once during the past 3 years
- A firm that has sought a court remedy for either court protection, composition, or liquidation
- A firm managed by bank: firm management under contractual agreement with a bank crippled by financial difficulties
- Creditor’s committee acknowledges that the firm’s business operation requires normalization
- Realized loss from business operations: paid-in capital on the balance sheet is less than the shareholders’ equity resulted from realization of loss
- A firm in need of disposal of assets for business conversion
- An affiliate of conglomerate recognized as providing opportunity of specialization and enhancement of core-competency of its parent firm
- A firm that has distressed debts which are greater than or equal to 5 percent of sales with accumulated amounts of default on promissory notes or accounts receivables and not meeting guarantee obligations

7.6.4 Revenue Structure

Capital Gain

- Acquisition of controlling interest (Pure equity/Mezzanine Equity)
  - Leveraged buyout
  - Management buyout
- Acquisition of operating assets
- Acquisition of non-performing loans
  - Acquisition & Collection
  - Debt-Equity Swap
  - Bond mailing

Management Fee

- Carried interest & collection
- Other fees (monitoring/Transaction/consulting Fee)
7.6.5 Investment Procedure

Selecting target firms, Desk research

Non-disclosure Agreement, LOI, MOU

Due diligence, valuation process

Restructuring Plan

Negotiation between stakeholders

Investment, restructuring

7.6.6 CRC Fund Structure

- Funding method: Private placement, below 100 investors
- Fund size: 10B ~ 100B won
- Fund structure: Limited partner, General partner
- Payment: Management fee, Success fee
- Duration: 5 Years
- Tax benefits: Redemption

7.7 Current Market Situation

In 1999, the first year of introducing CRC business, CRC investment increased from KRW 0.2 trillion to KRW 0.8 trillion in 2000, KRW 1.6 trillion in 2001, KRW 1.5 trillion in 2002. Since its introduction in 1999, CRC investment has increased to record level. During this time, CRC investment focused on the NPL or equities issued by distressed or bankrupted
firms. CRC market expansion was ignited by the active attitude change of financial institution creditors, fluent liquidity in financial markets, and the increase of CRC firms. On the basis of restructuring systems, as the Korean economy showed signs of positive recovery, the number of reviving firms increased and resulted in huge opportunities for capital gains.

In 2002, CRC investment reached record levels because of the increase in corporate sales by public bidding and the rise of M&A deals by conglomerates and larger firms. For the purpose of fostering the specialty of CRC, the Korean government (MOCIE) revised the Industry Development Law on Jan, 2002 and upgraded the licensed standards for CRC firms by increasing the paid-in-capital from KRW 3 billion to KRW 7 billion for sole CRC business firms and from KRW 10 billion to KRW 17 billion for the dual business CRC firms.

By strengthening license standards, the number of CRC firms decreased from 100 firms to 62 firms. Total paid-in-capital of CRC firms increased to KRW 2.4 trillion and the CRC firms’ sizes grew to an average of KRW 39.5 billion paid-in-capital.

(Table 7-14) CRC Firms after Registration

<table>
<thead>
<tr>
<th></th>
<th>No of firms</th>
<th>Portion</th>
<th>Paid-in-capital</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Technology financing Firm</td>
<td>8</td>
<td>12.9 %</td>
<td>1,865</td>
<td>233.1</td>
</tr>
<tr>
<td>Venture capital</td>
<td>9</td>
<td>14.5 %</td>
<td>251</td>
<td>27.8</td>
</tr>
<tr>
<td>Sole CRC firm</td>
<td>45</td>
<td>72.6 %</td>
<td>334</td>
<td>7.4</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100 %</td>
<td>2,449</td>
<td>39.5</td>
</tr>
</tbody>
</table>

In 2003, number of firms listed under distress conditions significantly decreased from 200 firms to 100 firms. Among them, just 20 listed firms remained for future investment. The number of distressed firms had significantly decreased from 700 firms to 320 firms. Therefore CRC investment in target firms had expanded from solely distressed firms to those within a wider scope of restructuring needs such as firms with a high debt ratio.

Due to two regulatory changes in 2003, CRC investment strategies have changed. First, short-term investment for capital gains purposes was prohibited by a lock-up system for
50 percent of the total shares in any M&A deal and its pricing method was altered. Second, the Korean government (MOCIE) regulated CRC firms to invest over 40% of paid-in-capital into the corporate restructuring business. Through several deals, financial institution creditors could accumulate valuation capabilities so that the opportunities to buy NPL and securities with lower valuation became difficult. Therefore, CRC firms should find more profitable areas in non-distressed firms’ restructuring and begin the move toward more active participation within the buyouts market.

**Number of Fund (Figure 7-6)**

![Bar chart showing number of registration per year from 1999 to 2003]

**Size of Fundraising (Table 7-15)**

(2002, Unit: Number of firms, KRW Billion)

<table>
<thead>
<tr>
<th></th>
<th>1~5B</th>
<th>5~10B</th>
<th>10~100B</th>
<th>Over 100B</th>
<th>Total</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>17</td>
<td>22</td>
<td>22</td>
<td>1</td>
<td>887.6</td>
<td>14.3</td>
</tr>
<tr>
<td>2000</td>
<td>3</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7.8 New Opportunity for Domestic CRC

Investment focus will shift from the financially distressed firms to the sound companies and increase the exposure on the pre-bankruptcy and normal sound firms. The investment window will widen to allow for engagement within all of a corporation’s life cycle stages. Fundamentally, bankruptcy investment opportunities within a distressed firm under court-receivership will still exist. Conglomerate restructuring and privatization programs for the state owned commercial banks and power plants will be continued. New deal opportunities will arise or be highlighted for change in several sections:

- Industry consolidation
- Industry transformation
- Tightened de-listing regulation from 2004 (KOSDAQ market)
- Large scale leveraged buyout opportunity (the firms under management of creditors)
- Change of ownership structure
- Pre-bankruptcy investment
- From the fund that will be pressed by the fund closing (A lot of funds were raised between 1998~1999 with 5 year duration)
- Venture CBO invested firms.
Chapter 8: Buyouts Market

8.1. Importance of Buyouts Market

8.1.1 Characteristics of Korean Economy

Inefficiencies in Korean Economy

Korea’s economy has achieved more than a 10 percent rate of growth for each of the past 30 years. However it is now entering a period of more mature growth. Throughout the mid 1990s, the Korean economy exhibited characteristics of countries that were slightly less developed than countries such as Japan and somewhat more developed than countries like China. However, had the economy been managed differently, Korea could not only have superseded Japan in the high-tech and value added products but might also have faced serious challenges from China which competes on low priced products and with huge amount of foreign direct investment (FDI). This “trapping phenomenon” was brought to light via the Korean financial crisis.

The solutions to overcome this crisis could be presented from analyzing the sources of the problems. First, the Korean economy stayed to the low cost production and was pressed upward by the Chinese economy. To change its economic structure from the low cost products to the high-tech and value added products, Korea should focus on developing advanced technologies and change its growth engine from big conglomerate to the small and medium firms. This strategy has showed up as a venture promotion policy, which resulted in great success in terms of innovation of technology and stimulation of conglomerate to change voluntarily. During this process, the private equity market (Venture capital) played an important role in supplying enough capital for the small and medium size firms.

Second, Korea continues its inefficient over-investment in the traditional manufacturing sectors with debt financing due to competition between large conglomerates. Korea should change its economic paradigm from a highly leveraged debt structure into a more stable
equity structure in order to solve the inefficiency and overcapacity created by traditionally large firms. The Korean government needs to drive the restructuring processes for the inefficient large firms and other financial institutions distressed by the bad debt of industry sectors. Granted, given that huge amounts of NPL were sold to global financial investors at a deep discount, that many large firms were revived through restructuring processes, and that the Korean economy recorded strong growth during 5 years after financial crisis, the Korean Government strategy looked like a successful decision. But the average 5 percent rate of growth is still vulnerable to global economic fluctuations. For the purpose of strengthening its economy, establishing an on-going restructuring system and quantum jump in the technology capacity that meets global standards will be necessary. Beforehand, it is important to develop a capital market to provide enough capital to industries through efficient screening systems. Afterward, it will be necessary to restructure the market to revive distressed firms and restructure the inefficient firms.

Small Open Economy

The high level of dependence on exports in the Korean economy increases the country’s sensitivity to the outside environmental changes and makes its economy unstable because a limited domestic market can not buffer against the fluctuations inherent within the export sector. Export dependence, the ratio of exports and imports as a percent of GDP, in Korea is about 73 percent, higher than any other country’s. (China’s dependence is at 43 percent, the United State’s at 20 percent, and China’s at 18 percent.)

8.1.2 Needs for On-going Restructuring System

Creating a restructuring system is an inevitably important infra-structure in any economy as it makes financial systems more stable and keeps economic growth more stable. Considering the recent development of a corporate restructuring market, Korea has an opportunity time to create an on-going corporate restructuring system with a wide range of work scopes and investment targets. After its recent financial crisis, various programs such as CRF, CRC, CRV, and CR-REITs were implemented to accomplish specific, though narrow, goals,. Now the Korean economy can pursue a new platform that integrates all kind of missions.
The Korean government’s strategy to serve as the Asian financial epicenter the corporate restructuring market needs to capitalize on new and emerging businesses in which Korea can develop a competitive strength through its previous experiences and successful emergence from the financial crisis. It is clear that a promising business can penetrate both the large Chinese and Japanese markets.

(Figure 8-1) Development Stage of Restructuring System

<table>
<thead>
<tr>
<th></th>
<th>KOREA</th>
<th>USA</th>
<th>JAPAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>KAMCO</td>
<td>RTC</td>
<td>RCC (Current Status)</td>
</tr>
<tr>
<td>Stage 2</td>
<td>CRF, CRC, CRV, REITs, M&amp;A Fund</td>
<td>Vulture Fund, Corporate restructuring Fund, M&amp;A Fund</td>
<td>IRCJ (Industrial Revitalization Corporation of Japan)</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Current Status</td>
<td>Private Equity Investment bank</td>
<td>Private Equity Investment bank</td>
</tr>
<tr>
<td></td>
<td>Private Equity Investment bank</td>
<td>Private Equity Investment bank</td>
<td>Private Equity Investment bank</td>
</tr>
</tbody>
</table>

Note: KAMCO: Korea Asset Management Corporation  
RCC: Resolution and Collection Corporation

8.1.3 Fair Competition with Foreign Private Equity

Considering that foreign investors accounted for over 40 percent of investment in the Korean
stock market, their influence in the Korean financial institutions has increased. Therefore, it is necessary to build fair competitive opportunities for the local private equity investors. Domestic investors have been limited in their participation opportunities due to lack of experience and track records.

<table>
<thead>
<tr>
<th>(Table 8-1) Cases of CRC Investment</th>
</tr>
</thead>
</table>

**Foreign Investor**

<table>
<thead>
<tr>
<th>Buyer</th>
<th>Date</th>
<th>Price(U$M)</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winia UBS Capital Consortium</td>
<td>1999.11</td>
<td>201</td>
<td>Asset sale</td>
</tr>
<tr>
<td>Mando JP Morgan Partners Consortium</td>
<td>2000.1</td>
<td>470</td>
<td>Asset sale</td>
</tr>
<tr>
<td>Haitai UBS Capital Consortium</td>
<td>2001.7</td>
<td>410</td>
<td>Asset sale</td>
</tr>
<tr>
<td>Hanaro New bridge-AIG</td>
<td>2003.10</td>
<td>1,100</td>
<td>Stock Transfer</td>
</tr>
<tr>
<td>Hyundai Autonet N/A</td>
<td>Current</td>
<td>300-400</td>
<td>On-going</td>
</tr>
</tbody>
</table>

**Domestic Investor**

<table>
<thead>
<tr>
<th>Pantec</th>
<th>KTBnetwork Consortium</th>
<th>2001.11</th>
<th>111</th>
<th>Stock transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kumho Tire</td>
<td>Military Mutual Aid</td>
<td>2003.5</td>
<td>1,100</td>
<td>Asset sale</td>
</tr>
</tbody>
</table>

### 8.1.4 Strengthening the Investment Banking Function

Leading investment banks are expanding the portion of investment banking business. Investment banks have traditionally focused on the agent businesses while private equity funds focused on the principal business. Recently, however, investment banks have begun expanding into the principal business through establishing their own private equity fund.

In the United States, the Gram-Leach-Bliley (GLB) Act of 1999 established that financial holding companies were permitted to handle merchant banking business through private equity funds.
(Figure 8-2) Position of Private Equity Fund (I)

High Risk

Investment Bank

Commercial Bank

Brokerage House

Private Equity (CVC, M&A Fund, Venture Capital)

Mutual Fund

Low Risk

Agent ← Principal

(Figure 8-3) Position of Private Equity Fund (II)

High Risk

Goldman Sachs

Morgan Stanley

KKR, Blackstone, Carlyle

Clayton, Dubler, Rice, WCA&S

JP Morgan chase Citygroup

Korea Securities Company

Low Risk

Agent ← Principal

Fidelity

Vanguard

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8.1.5 Diversification of Asset Management

Because Private Equity Fund is a new type of asset class and has a low level of relationship with other current assets, it can be spotlighted as a useful asset class. In the US market, Private Equity funds have been used as a typical alternative investment tool by financial institution after the mid 1990s.

(Figure 8-4) Relationship between financial products

![Graph showing correlation between financial products](image)

Source: KTBnetwork

8.1.6 Financial Hub Strategy

The Korean government has a plan to lead corporate restructuring markets in the north eastern region of Asia. Its top three priorities will focus on implementing government policy that initiates growth in new industry.

- Raising of the restructuring business vehicle and investment fund
- Executing the sample investment to accumulate experience.
- Upgrading the regulatory structure to stimulate the private equity investment to foreign countries.
8.2 Market Directions

Definition of Market Needs

- Change the focus of restructuring business from handling NPL to maximizing firm value through corporate restructuring activities.
- Expand the target firm’s from distressed firms to the inefficient firms in order to enhance the firm’s value
- Shift the focus of restructuring business from small size deals to the medium and large size deals that foreign players have traditionally monopolized.

(Figure 8-4) Relationship between financial products

<table>
<thead>
<tr>
<th>Deal Size</th>
<th>Special situation</th>
<th>Normal situation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Big Market</strong></td>
<td>L, G, N, C</td>
<td>W</td>
</tr>
<tr>
<td>(Above U$500M)</td>
<td></td>
<td>Future Direction</td>
</tr>
<tr>
<td><strong>Middle Market</strong></td>
<td>K</td>
<td></td>
</tr>
<tr>
<td>(U$100M~500M)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Small Market</strong></td>
<td></td>
<td>Local CRC</td>
</tr>
<tr>
<td>(Below U$100)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adopting Global Standard

- Introduce the Buyout fund system as a new platform.
- apply traditional Limited Partnership
Regulatory system

- In the United States, buyout fund is a typical type of unregistered fund by Investment Company Act 1940. As a result, no regulatory system guiding Buyout fund exists.
- Because the Korean legal system is founded on the basis of a written law system and prohibits illegal funding, additional regulations will be required.

8.3 Limitation of Current Regulatory System

8.3.1 Private M&A Fund

Private M&A funds were regulated passively by the government which accepted some exceptional conditions to the regulatory rules of general funds that were typically subject to portfolio investment. While private M&A funds exhibit similar characteristics to a typical active fund, it was regulated by the Securities Investment Company Law as a passive fund. In the private M&A fund, use of leverage is not permitted.

A private M&A fund is not a short-term portfolio fund but a long-term fund that invests in one or a few number of firms. Its success depends not on its careful selection of targets, portfolio organization, or the timing of its buying and selling, but rather on the restructuring capability of its target firm. Private equity funds have a disadvantage in keeping certain information confidential—a key success factor in any M&A deal—due to its responsibility to report to the administration of the consignment company.

8.3.2 CRC Fund (Industry Development Act)

The investment targets of CRC funds are limited to distressed firms under the Industry Development Act Guideline so that investments are not made in inefficient firms. There are other limitations as well which pertain to the acquisition of a financial institution such as a bank to consider a fund’s characteristics as well as its ability to acquire large firms or consider capital injection as paid-in-capital.
8.4. Main Issues for Future Regulation

8.4.1 Regulatory Structure

Regulatory System in Korea

CRC is classified as a corporation in Commercial law while a CRC fund is classified as a partnership in civil law. Under a restructuring agreement, the CRC should meet the guidelines for the minimum paid-in-capital and human resource requirements.

CRV is classified as a paper company and the AMC of CRV is classified as an Asset management company (AMC). AMC should meet guidelines for the minimum paid-in-capital and human resource requirements.


US Private Equity Fund

The legal framework of private equity funds is similar to that of limited partnerships in the United States. General partners become a restructuring agent, such as Buyout Group (Example: Carlyle group) who take the unlimited liability instead of managing the fund. Limited partners are composed of fund investors who have limited liability instead of being fully involved in fund management. Because the partnership is an independent entity of business and of accounting but is not an entity of taxation, limited partnerships will be responsible for the tax on any income distributed.

In Korea, there is no legal entity that is similar to the Limited Partnership of the United States. The most similar system is CRC Fund or Venture Capital Fund.
(Table 8-2) Comparison of Private Equity Vehicle

<table>
<thead>
<tr>
<th></th>
<th>Restructuring Entity</th>
<th>Fund or Partnership</th>
<th>Investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyout Fund</td>
<td>General manager (Buyout group)</td>
<td>Buyout fund invested by Limited Partners</td>
<td>Limited Partner</td>
</tr>
<tr>
<td>CRC</td>
<td>CRC</td>
<td>CRC Fund</td>
<td>Partner</td>
</tr>
<tr>
<td>CRV</td>
<td>AMC</td>
<td>CRV(Paper company of mutual fund type)</td>
<td>Investors</td>
</tr>
<tr>
<td>Private M&amp;A Fund</td>
<td>AMC, investment advisor company, Securities company, New technology financing company, Directors of corporation</td>
<td>M&amp;A Fund (securities investment company)</td>
<td>Investors</td>
</tr>
</tbody>
</table>

8.4.2 Investment Target

Korean Regulatory System

(CRC)
- Distressed firm applied to the Corporate Reorganization Act, Bankruptcy Reform Act
- Firm with which financial institutions signed management assignment contract
- Firm which Committee of the financial institutions approves restructuring

(CRV)
- Workout firm (that experience financial distress but has potential for recovery)

● Private M&A Fund
- Securities investment company included in the conglomerate (Limited in cross-holding)
- Conglomerate
- The firm included as a subsidiary should be sold within 5 years.
US private Equity Fund

No regulatory requirement, Specialized by industry or strength of distress
- Clayton, Dublier & Rice (distressed firm, distressed business line of large firm)
- Carlyle group, Blackstone group (co-acquisition with strategic investor)
- Welsh, Carson, Anderson & Stowe (Healthcare &IT)

8.4.3 Acquisition of Bank

Korean Regulatory System

- Corporate restructuring entities (e.g. CRC and CRV) were not permitted to invest to
  financial institutions such as banks. Even though Private M&A funding does not have a
  specific limitation, it is not an entity designed to acquire banks.

- Bank Act.
  - There are difficulties for Private M&A funds to become the largest shareholder
    (Banking Act. article 15, Enforcement ordinance 5, Financial Holding Act article8,
    Enforcement ordinance 6.3)
  - Limitations to hold over 10% of bank share (except by approval of the Financial
    Supervisory Commission)

- Fair trade Act
  - Large private M&A fund is considered a holding company.
    It can be classified as a holding company in the case that the total amount of assets are
    over KRW 100 Billion and the equity of subsidiaries surpass 50 percent of total
    assets. In the case where a private equity fund is considered as holding company, the
    regulatory limitation will be applied to the fund
  - Debt ratio 100 percent, Minimum subsidiary share rate 50/100, limitation of holding
    equity except subsidiaries
  - In the case of CRC and CRV, through special conditions, above all guidelines can be
    waived, but there is no case that waived the guide line that prohibit simultaneously
    keeping company from acquiring both financial institution and non-financial firm.
US private Equity Fund

- In the United States, there is no special law regulating the private equity fund. Just anti-fraud article in the Investment Company Act 1940 can be applied to the private equity fund so that principally no limitation about the investment exists.

- There is no limitation in holding an equity share of a bank. Just in case that the equity share ratio exceeds the guide line, government approval is required.
  - In case of holding over 25 percent of bank or bank holding
  - In case of holding over 10 percent and largest shareholder
  - In case that bank holding company acquires over 5 percent of other bank or of other bank holding company

8.4.4 Core Businesses

Korean Regulatory System

- Core business of CRC

  - Core business of CRC includes the acquisition of target firms, restructuring of the firm and sales
  - Acquisition means getting the corporate control power that can actually dominate the firms. Dominating a firm means that an acquirer designates a CEO and over 50 percent of executives, in some cases there are executives who have dual position in the CRC and acquired firm, and in others the CRC has the dominant influence in the restructuring, organizational change, decision making, and its execution.

  - Additional businesses include the investment to the target restructuring firm and procurement of asset sold by target firm, procurement of NPL sold by KAMCO, incorporation of CRC fund and fundraising, agent business for the workout and bankruptcy, and M&A
Core business of CRV
- There is no specific description about core business, but restructuring business for the firms under the management assignment contract
- Asset management, operation, sales for the asset taken by the CRV borrowing, bond issuing, investment to the firms.

Core business of private M&A fund
- There is no specific description about core business. Private M&A fund is defined as acquiring other firms as a subsidiary
- In case of acquiring equity for the purpose of making the firm as a subsidiary, selling the acquired equity will be prohibited within the 6 months from acquisition.

US private Equity Fund

- No specific regulation. In general, buyout funds execute the mission to acquire 100 percent or at least a major portion of equity within a firm in order to restructure the firm and increase the firm’s value through the reorganization process.
- US buyout funds execute investments as a principle—they do not advising business

8.4.5 Expansion of Private Placement Concept

Korean Regulatory System

- In the case of a CRC: limited number of individuals can be a investors. (Within 100 entities)

- In the case of a CRV: even though there is no specific description, private concept will not be a problem. In the case of a Co-operative CRV, because sole financial institutions create the CRV, fundraising will not be a problem. In the case of a joint CRV, because outside
investors—except for the financial institution—participate in strategy development additional fundraising is not required.

- In the case of a Private M&A fund, both private funds and qualified purchaser funds are possible, but the Korean definition of qualified purchaser differs from the American definition of the same.
  - Private fund: Less than or equal to 30 investment entities
  - Qualified purchase fund: Institutional investors, individual investor who invested over KRW 10 Billion, corporate which invested over KRW 50 Billion.

US private Equity Fund

- Dual category for the private concept (Investment Company Act 1940)
  - Model1: Private fund: 3©1 Fund, which gathers the investors with private placement, has no limitation on the investor qualifications, and has less than 100 investors
  - Model2: Qualified purchaser fund: 3©7 fund, which gather the investors, limits the fund to qualified investors but has no limitation on the number of investors. Institutional investors such as QIB and Trust, individual investors who invested over US$ 5 million or corporations which invested over US$ 25 million

Note: (1) Korea Securities Research center, (Feb.24, 2004), “Activating Plan of Private Equity Fund”, which was prepared as a seminar materials.
Chapter 9: Conclusion

Argument 1:
The private equity market is an efficient resource allocation system as well as a resource re-allocation system to provide equity capital into the firms not quoted in the stock market.

In order to maximize the economic welfare, every society pursues enhancement of productivity and economic growth. While pursuing these goals, each society has questions about which industries and firms could be a winner in the competitive economic game. On considering the specific risks relative to each firm’s life cycle characteristics, principal-agent problems, and investment stage, societies have tried to establish efficient and effective resource allocation systems, in order to determine how much of human resource and capital resource would be allocated, monitored, and used for maximizing value creation and enhancing economic welfare.

In this thesis, the fact that private equity market is the most efficient and effective resource distribution system in several countries has been demonstrated through practical data and analysis.

Venture Capital Market
In the case of the venture capital industry, small and medium size tech firms accomplished more innovative technology development, as recognized by Acs and Audretsch (1990) and they accelerated development of high tech industry as recognized by Brujmann (1993).

In research executed by Korean government on 8,245 firms in 2001, the start-up firms showed a higher level of value creation than larger firms. Start-up firms showed higher revenue growth rates, net incomes, and growth of employment. Start-up firms showed an average revenue growth rate of 44.3 percent, net income of 4.9 percent and an employment growth
rate of 24.3 percent, considerably higher than average rate of 16.7 percent, 0.3 percent and 3.8 percent, respectively, for larger firms. It is remarkable that employment growth rate of start-up firms was higher than that of larger firms. One finds a similar situation in Germany, where the job creation rate by start-ups was 33 percent.

These trends are clear in the GDP contribution from the IT industry, which was the main investment target of the Korean venture capital industry. Korean domestic IT industry grew from KRW 15.2 trillion to KRW 141.7 trillion in terms of manufacturing price. Value added has also grown from KRW 33.7 trillion to KRW 67.3 trillion at an 18.9 percent growth rate, higher than the GDP growth rate.

The growth of the KOSDAQ market as a main exit channel for the venture capital industry has shown that venture capital can create value and enhance the economic welfare. Total market capitalization of KOSDAQ market has risen during an eight-year period from KOSDAQ’s incorporation in 1996 to KRW 37.3 trillion at the end of March, 2004.

Corporate Restructuring and Buyout Market

In the case of corporate restructuring and buyout industries, it was shown that both can contribute to maximizing the value of all stakeholders in their economy. Corporate restructuring and buyout industries deliver a win-win strategy to its stakeholders.

In addition, long-term returns of private equity represent a premium to the performance of public equity with an acceptable level of risk mitigation. Out-performing quoted equity portfolios has been the case in the United States for over 20 years and also in Europe (Figure 9-1). This out-performance is likely to come from that risk profile, which can be controlled through the use of disciplined tools of private equity investment: detailed due diligence, negotiated investment returns, and change of corporate governance structure.
The corporate restructuring industry has indispensively contributed to the quick recovery of the Korea economy after the financial crisis of 1997. The impact of the crisis was so huge that 14 out of 30 Korean conglomerates were insolvent or dismantled afterwards. Through establishing the KAMCO as an AMC with KRW 137 trillion and creating an active NPL market, a Korea economy could solve the bad debt problem within three years after financial crisis, creating a specialized NPL market in Korea. Later the matured NPL market had led to the opening of corporate restructuring market and now is evolving into the buyout industry to establish the on-going corporate restructuring system in the Korean economy.

As shown in Chapter 2 of this thesis, the buyouts industry had generated substantial gains to the both pre- and post-buyouts shareholders. It was observed to be more efficient than mergers in creating shareholder value and an effective win-win strategy not only for shareholders but also for other stakeholders in its economy. It has successfully shown that the increased earnings of more efficient buyouts also generated government revenues, as did taxes paid by lenders on their interest income. All of these factors contributed to an increase in job
creation. As to their more fundamental contributions to the Korean economy, corporate restructuring and the buyout industry have helped upgrade the overall corporate governance scheme. Buyouts have also been shown to be a significant tool to solve the principal and agent problem.

Through the above analysis, we can understand why the every government is eager to establish the private equity market in its economy.

**Argument 2:**

The private equity market is difficult to be developed not only due to the high risk characteristics of the market, but also due to the need to establish value added infrastructure as well as change the current financial mechanism as an evolving capital market.

In financial economies, key success factors that influence to the firm’s capital supply capability were defined as uncertainty, information asymmetry, risk profile of asset class involved, and capital market condition. The private equity market has traditionally focused on four areas: venture capital, middle market financing, corporate restructuring, and buyout market. These markets have high levels of uncertainty, information asymmetry, and risk, compared with the public stock market.

To compensate for the risks and gaps between capital demand and supply, each society needs to implement a professional intermediary, private equity investor, and a value-added infrastructure such as accounting firm, consulting firm, and management pool that have professional knowledge, skills, and a network capable of mitigating the risk and to create additional values of firms. The active entrepreneurship and promising entrepreneur pool are the fundamentals on which private equity market can be established.

Given that private equity market should take high risks, traditional financial market
mechanisms such as bank and regulatory infrastructure, which was designed and developed under the normal condition with risk-averse investors, tends to resist participating into a new, high-risk private equity market. For the purpose of introducing this new capital market, each society needs quantum shifts to make the new market affordable, such as change of government policy, legal regulation structure (de-regulation), monetary policy, taxation and/or economic paradigm shifts (for example, a financial crisis).

As actual examples, US venture capital market was introduced on the basis of four quantum shifts: First, explosive demand to the technology development and its commercialization after World War II and ignited by the competition with Soviet Union. These demands were met with a business frame through the establishment of ARD and the vision of the ARD founder to devise a private-sector solution to the dearth of financing for new enterprise and small business. Second, limited partnership was introduced as an effective vehicle for funding and management. It could successfully solve the rewards pressure from professional venture capitalists, double taxation issue and risk control problems. Third, the Department of Labor decision pertaining to the “prudent-man” provision of ERISA governing pension fund investing on 1978 opened an era of huge scale of long-term capital flow into venture capital market. Fourth, the establishment of NASDAQ market on 1971 provided a major exit channel for venture capital investment.

I found that Korean venture capital market has been also established on four quantum shifts: First, the legislation of Special Measures Law for fostering venture business on 1996 which provided a baseline for Korean government to build-up start-up venture business with tax benefits and financial supporting program. Secondly, the legislation of Incorporation Supporting Law for Small and Medium Firms that provided a baseline for establishing venture capital firms. Third, the establishment of KOSDAQ stock market for venture firms on 1996, which provided an exit channel to venture capital firms and entrepreneurs and provided capital flow into venture firms through IPO. Fourth, the Korean financial crisis of 1998, which weakened the traditional large firms and changed economic growth engine from large firms to smaller high-tech firms in Korea, allowing Korea to allocate more resources into
venture industry. Ironically, financial crisis gave more opportunities to small venture firms with organizational flexibility and innovative technology. Therefore, the financial crisis can be referred as the most significant quantum shift in establishing venture capital market in Korea.

However, not every country could succeed in establishing a private equity market in its economy through changes like these. The private equity market of each country is located in a different stage of evolution. Only a very few countries, including the United States and the United Kingdom, can be classified as successful countries with well-organized private equity market. Even though Japan and Germany are ranked as a second and third largest economy in the world, their private equity market are not as successful, as shown in the Figure 9-1.

There are a number of similarities and differences between the venture capital industry in Germany and Japan to explain their lack of development. The venture capital industries started to develop in Germany and Japan around the same time; in the late of 1960s, both government sought to support small business formation. In 1975, governments in both countries got actively involved in the creation of venture capital industry. In both countries publicly financed venture capital firms did not perform well. The main cause for mediocre success of the government as a venture capitalist was the fact that those who disbursed capital did not participate in the upside of new ventures and did not suffer serious monetary or status consequences when their ventures failed. On the other hand, government supported entrepreneurship in technologically intensive industries seem to have positive effect in Germany, especially the 1989 BJTU program.

There are also significant differences between the evolution of venture capital industry in Germany and Japan. First, Japan has more informal influence over banks and firms. But Japanese government did not use this power to stimulate the private equity market. Only when the legislature and bureaucrats gradually removed a number of formal obstacles for venture capital industry during the 1990s, did the industry finally develop. Second, while Germany has a university-oriented research system, Japan has a company-oriented research system. Third, Japanese and German banks differed in their ability and willingness to provide
private equity. The main reason that Germany and Japan failed to establish the private equity market, compared to US private equity market, seems to be a passive government role, a high density of regulatory system, a bank oriented financing system, and misalignment of interest between participants in the market structure. It is likely, however, that the speed of industry development will accelerate further and bring the venture capital industries to the US system. But without change of market structure, it will take time to converge. It is clear that establishing a well-organized private equity market is a difficult mission for any country.

One of the main reasons for the failure in Japan and Germany is that strong power of bank demotivated the establishment of an active investment market. In Germany, buyback options recorded the largest portion of exit channels at 63 percent in 1995 contrary to the minor portion of IPO at 4.6 percent. In Korea, banks have continued to take a passive attitude toward venture capital investment. While the portion of US bank participation in total venture investment had increased from 6.7 percent in 1995 to 29.4 percent in 1999, with total amounts of US$ 5.8 billion and US$ 25.8 billion respectively, the portion of Korean bank participation in total venture investment decreased from 26.2 percent in 1998 to 5.3 percent in 2001. This decrease seems to be related to a conservative attitude and the launching of a new debt-financing product called as a conditional loan with rights of Debt–Equity Swap in 2000. Korean banks selected a distorted method to mitigate the risks of direct venture investment. In the case, current banking system became a barrier to introducing a new financial market and taking high-risk business.

Compared to the unsuccessful cases of Germany and Japan, the Korean government established three major private equity markets during the 22-year private equity history in Korea; venture capital, NPL market, and corporate restructuring market. The Korean government is now looking for a way to enter into the buyouts market to implement the embedded ongoing restructuring platform in its economy. The main reason of these significant successes seems to be the threat of Korean insolvency during the crisis of 1998. Korea took the chance to shift its economic paradigm from large firm and traditional industry oriented economy to an economy balanced between the small technology firms and large
firms. During this period, large firms and banks lost their power due to their restructurings, and small firms had the chance to access capital resource and human resources without additional cost. The opportunity to establish an NPL market and restructuring market came to Korean economy as a result of financial crisis and its recovery. It was similar to the history of establishing US corporate restructuring market in the end of 1980s to overcome financial crisis in S&L.

**Argument3:**

**Government role is the most important factor to in initiating a new type of capital market, the private equity market.** The significant changes and evolution in the private equity market were preceded by the changes in regulatory system (de-regulation), taxation, monetary policy, government policy and/or operations of pension fund. Different starting point leads to the different paths.

In the US private equity market, it is well known that even though ARD was accepted as the first venture capital firm historically, real venture capital firms as an industry trace their start to the Small Business Investment Corporation (SBIC) licensed by the Small Business Administration (SBA). SBIC was also criticized as an inefficient organization linked to the government capital and, at first stage, it concentrated on providing government low cost debt financing to small firms that had positive cash flow, and it was known to be sensitive to political lobbying. The bearish sentiment during 1963 caused public SBICs to trade at the average of 40 percents discount. Many of the nation’s 700 SBICs were problem companies and by 1977 the number of SBICs had fallen to 276. As I showed in Chapter 4, Korean venture capital firms started out similar to the US SBICs as closed-end investment firms that mainly facilitated low-cost government debt financing. Korean venture capital firms were also listed in the KOSDAQ market and have been traded under the discounted value in the recent bear market. Their registered number was 60 firms in 1997, increasing to 147 in 2000 to a peak, and decreasing to 117 firms at the end of 2003. These results tell us that both early
stage venture capitals in two countries were initiated by government and, after over-heating during an economic boom, followed by a downward slide. The early stage of venture capital market was the same in two countries. In the bearish market, several US SBICs changed their business model from venture capital to non-venture private equity investment. This is happening to Korean venture capital right now. It is also well known fact that publicly financed venture capital firms in Germany and Japan did not perform well. Those results look likely to show an end of government driven venture capital economy.

But the importance and contribution of SBICs in the US venture capital should not be underestimated. All of their successes and failures became a fundamental basis for the next generation venture capital: in other words, limited partnership. Here we can recognize the importance of government role and its limitations. The government-driven policy might be a critical factor for introducing new private equity market in the early stage. But the government-driven venture capital is exposed to the excessive fluctuation of the stock market and, additionally, a rigid organizational structure of venture capital firm can not stimulate the motivation of professional private equity investors.

On the other hand, during a hot new issue market in 1968~1969, private equity professionals, who gained valuable experience and enjoyed personal rewards, saw an opportunity to improve upon existing arrangement. This provided the impetus for the formation of a significant number of venture capital limited partnerships. Limited partnerships were attractive as a way of addressing the problem of compensation, avoiding SBIC-type investment restrictions, and attracting investors more sophisticated than the retail shareholders of public traded SBICs. But for nearly a decade, as the venture capital market stayed in the depressed situation from the weak stock market, few capital resources, a shortage of qualified entrepreneurs and tax change, limited partnership also could not be spotlighted. In the early 1980s, the evolution of the limited partnership in combination with the numerous favorable regulatory and tax changes, in addition of above three advantages, spurred the flow of capital to private equity industry. Except five advantage of limited partnership, the disadvantages of SBIC as closed-end investment firms make the limited partnership as a mainstream in the private equity industry. The close-end type investment firm has disappeared from venture capital industry,
except the temporary revival as a revised type in the late-1990s with the internet bubble.

In Korea, at first, the venture fund was admitted as a complementary investment sources to leverage the venture capital firm’s own investment resources with a way of dual investment. But from 2000, when venture capital industry entered into a shrinking period, venture capital firms who felt a difficulty in firm’s capitalization, started to expand fundraising for the purpose of keeping investment size and enjoying the management fee as a revenue. But while Korean venture capital firms operate their own capital, making an outside venture fund can induce moral hazards and conflict of interest issues. The object of fundraising was different between two countries. Under the bear market, Korean government became a largest investor for the venture fund with almost 30 percent of the portion.

To overcome the shortage of capital available to finance new venture by 1977, US venture capitalists recommend changes in Employee Retirement Income Security Act (ERISA) regulation, taxes, and securities laws as a way of revitalizing the venture capital industry. In 1979, the Department of Labor ruled that pension fund investment in securities issued by small and new companies and venture capital fund are permitted, provided they do not endanger an entire portfolio. It triggered a response in the market for small-company stocks and the new issue markets. The reinvigorated new issue market, enabling partnership to exit more of their investments, returns funds to investors and raises new partnerships. It also made investment into new ventures more attractive to partnership managers. It showed how critical a change in government regulation can be. In the Korean pension funds, I observed the same decision and development paths. As parts of the 1997 Special Measures Law for Fostering Venture Businesses, Korean government enacted liberalized provisions for venture capital investments by institutions, including banks and pension funds. Under the special law, banks are allowed to freely invest in the private equity activities but actual investment did not occur until 2000, because internal regulation of the institutions was not prepared. In 2001, the government revised regulations for the national pension scheme to allow it to invest in LPFs. For 2004, Korean national pension fund allocated KRW 244.2 billion, in detail, 173.5 billion for venture capital investment, and KRW 70.7 billion for corporate restructuring, respectively.
These amounts, approximately US$ 200 million, might not be a significant amount. But such seed capital can be leveraged to $2 billion, if we assume that this seed capital is used for 10 percent of total fundraising. In addition, as the pension funds grow, these private equity investments from pension fund will continuously increase, and we can expect similar growth in asset management industry and private equity industry. Tracing the influence of this decision to permit pension investment in private equity industry will be an interesting research subject in the near future.

Not only in the successful countries such as the United States but also less successful countries such as Germany and Japan, did the regulatory change (de-regulation) influence to the development of private equity market. What really triggered the development of venture capital industry in Germany and Japan was a reduction in regulatory density.

This phenomenon becomes clear in the corporate control market as an exit channel of private equity investment. As we reviewed in the Chapter 5.6, the significant changes in M&A market were preceded by the change in the Sherman Antitrust Act 1980, deregulation, FRB monetary policy, tax reduction, and macroeconomic changes, for the purpose of getting rid of chronic excessive capacity. The Korean M&A market experienced three waves ignited by deregulation of Securities Law in 1993, financial crisis in 1997, and the KOSDAQ market boom in 1999.

In the development of Korean NPL market and corporate restructuring market, the industry was guided by a series of regulatory changes. Because under the previous regulatory systems, restructuring processes could not be implemented at all, Korean government focused on changing regulatory structure such as Bankrupt Law, KAMCO Law, Bank Law, Financial Holding Company Law, Corporate Restructuring Promotion Law, and introduction of new platforms for CRV, CRF, CRC, Workout, ABS, MBS, REITs and M&A funds. And new capital market demand new regulations. In the US private equity market, the US government did not execute actively the government driven policies initially, but it seem to have responded sensitively to the market demands and business environmental changes with regulatory changes at the right times.
Argument 4:

Different countries had tried to introduce private equity markets in their economies from different situations and with different purposes and strategies. As a result there is a different scheme of private equity market structure for each country. They will, however, converge into one economic model with efficient and effective resource allocation system in the long run.

As observed through the private equity market comparison between the United States and Korea, major differences can be stated as below:

Venture Capital Market

First of all, regulation by the two governments was different. The United States government has continued a more passive stance by responding to the market demands sensitively with regulatory changes and policies. But the Korean government has recognized the private equity market as an industry to be developed. For this reason, the Korean government should prepare the various policies for developing new industry so that they could not stay as a policy maker but became a controller as well as one of the largest active investors to the private equity market. This tendency pushed Korean government to keep its role as a planner, controller, and investor in the market after the successful market introduction.

Second, for the intermediaries that private equity market depend on for reducing the intrinsic risks of private equity and creating the additional value, the US private equity market started as a corporate type, closed-end investment firm and changed its structure from the corporate type firm to the limited partnership after pension funds were permitted to invest into private equity market. But the Korean private equity market has still kept the corporate form. The reason seems to be the different legal structures in the two countries. This is one of the few exceptional but critical differences between Korea and United States. On the consideration that investment firms are exposed to the significant market fluctuation and their shareholders who have short-term investment horizons can influence the firms and their investment pattern
unstable, the introduction of pure limited partnership could be experimented in the Korean private equity market.

Third, regarding the fundraising, funding sources of private equity markets were totally different between two countries. In case of US venture funds, pension funds, endowments and institutions provided 38 percent, 22 percent and 18 percent of the total capital respectively in 1995. In the case of Korean venture funds, corporations, government and individuals provided 32.8 percent, 18.1 percent and 17.7 percent of total capital. This difference came from the fact the pension funds’ private equity investment was permitted from 2001 and Korean venture capital market has not attracted the pension fund and institutional investors to invest with the proven outstanding long-term performance. Worries about high volatility and moral hazard issues in private equity industry have not cleared yet. The National Pension Fund with KRW 133.4 trillion has an investment plan for 2004 to invest KRW 244 billion into private equity sector, a minimal proportion of 0.18 percent.

Korean venture funds request normally a one time capital injection, contrary to the capital call method of US market. It is due to the government participation which has limitation in the budgeting practice that the budget of certain year should be consumed within the year.

The fund duration mismatch between investment cycle and fund duration brings another critical issue that can influence to the investment patterns, prohibiting the sound development of Korean private equity market. The private equity fund duration is recommended to have at least 7~8 years, in general, ten years, on the consideration of 3~4 years portfolio construction period, 4~5 years value creation period and harvesting period. The typical duration of Korean private equity fund was five years, compared to the 7~8 years of US private equity funds. This short-term period of fund duration left three serious problems to the Korean private equity market. 1) The funds could not invest to the long-term deals but were just pushed to looking for the short-term financial deals or late-stage deals. 2) Without well-organized M&A market and secondary market, if the funds should find the exit opportunities under the bear market, the fund can not divest easily and its fund performance will drop. 3) Internally, corporate venture capital firms have the mismatch between the fund duration and term of
management team as directors of firm, normally a three-year term.

Fourth, regarding to the investment pattern, Korean venture capital acquires average 10~20 percent of share, while US venture capital acquires 50~60 percent. As a result, Korean venture capital has the limited power to control the portfolio firm. Contrary to the US venture capital firms which executes full authority, as a largest shareholder, including change of management team and provide full service packages for enhancing the value of firms, Korean venture capital firm normally becomes one of the outside investors, while previous founders or major shareholders continuously keep their power in the portfolio firms.

Fifth, regarding exit channel, the Korean venture capital market does not have effective alternative exit channels, except KOSDAQ market, such as M&A market or secondary market. Since a lot of new funds with five year durations were raised from 1999 to 2001 and venture primary CBO of US$2 billion with three year durations were implemented 2001, the venture start-up and venture capital market could be pressed by narrowed exit opportunities and large scale of divestment demands. The Korean venture capital industry is recommended to organize a secondary market to trade the unlisted private equities and issuing of Asset Based Securities (ABS) with the investment assets as a possible option to increase the liquidity in venture capital firms. By gathering the dispersed share of portfolio firms in each venture capital firm, powerful driving of M&A deals can be implemented to solve the industrial excessive capacity and exit demands.

**NPL Market**

Through the financial crisis, the NPL market has been well developed through step four, which has a specialized and segmented bad debt market. This market has been led by dominant foreign investors and market size has been decreased due to the results from bulk sales and restructuring efforts in financial sector and corporate sectors. In terms of short-term bulk sales of bad debts, Korea with the most powerful AMC body (KAMCO) can be classified as the most successful case. But in the consideration of long-term goal to enhance the asset value by the financial and operational restructuring, its results are limited. Through
the speedy liquidation of bad debt, economic recovery was realized. There is a pair of critical remaining issues: how the invested capital can be paid back and how, throughout the process, moral hazards can be controlled.

Corporate Restructuring Market

In the corporate restructuring market, successful restructuring depends on the capability of gathering bad debts, fundraising, and professional skills. Compared with the US buyout fund and vulture fund, CRF scheme in Korea are limited in acquiring control over target firms, because asset management is limited to investment to the securities. CRC has a limitation in large scale fund raising, because it is a corporation on the basis of commercial law. CRV has a limitation in targeting firms because it was limited to the firms that signed a specific agreement for restructuring with major financial creditors.

Therefore, these programs can not play a significant role as an on-going restructuring system to implement the corporate restructuring mechanism in the economy. For the long-term vision for the on-going system, two goals would be accomplished: First, a market driven restructuring system should be established, and Second, the financial market should be matured to initiate large amount of fundraising. The restructuring market is recommended to develop more strong relationship with asset market and M&A market and exit market. Korean corporate restructuring market is waiting the introduction of more flexible legal system and restructuring vehicle like US buyouts fund and vulture fund.

Conclusion

The private equity industries in the United States and Korea are at different stages of evolution. In both countries, the structure of financial system and legal system and regulation influenced the path of private equity industry.

In the United States, the venture capital industry started its development shortly after World War II. The first formal organization, ARD, was started in 1946 by a banker, a business school professor, and the president of a leading technical university. This constellation
foretold certain patterns in subsequent industry development. Venture capitalists funneled private capital to the entrepreneurs. As a capital industry, however, US venture capital started from the Small Business Investment Companies, under the major piece of legislation of the Small Business Investment Act of 1958. But these closed-end investment firms were also replaced by limited partnerships from the early 1980s. After changes in pension fund regulation in 1979, pension funds and endowments became the largest capital source. US venture capital had weathered a number of cycles and could be labeled as developed. The industry developed standard contracting structures and standard operating procedures for venture capital fund and fairly reliable reporting procedures for industry data.

In Korea, the venture capital industry started its development after 1980s. The first formal organization, KTDC, was started as a new technology financial supporting company in 1981. However normal venture capital firms started under the legislation of Incorporation Supporting Law for the Small and Medium Firms on 1986. The Special Measures for Fostering Venture Business stimulated the venture industry with the tax and financial benefits on 1986. On the basis of economic recovery after Korean financial crisis and government supporting programs and KOSDAQ market inauguration, Korean venture capital industry made such an unprecedented miracle. It stimulated the shifting of economic growth engine from large firms to the small technology firms. The KOSDAQ market created the third largest market capitalization in emerging stock market within eight years and got a leading position in OECD countries under the government driven policies of 22 year history. But after the IT bubble collapsed in 2000, it has experienced long calibration period, pending market revitalization.

As I reviewed, the difference between two countries can be summarized with four comparisons as below:

- Driving force: Government driven system vs. market driven system
- Intermediary: Venture capital investment firm vs. limited partnership
- Capital source: Short-term capital vs. long-term capital
- Investment: Passive investment vs. active investment,
  Short-term horizon vs. long-term horizon
Korean venture capital market seems to enter into a transition period from corporate type, government driven system to the limited partnership type, market driven system as US venture capital market evolved in the 1980s. The Korean venture capital market seems to be about 20 years behind the US market. The current Korean market situation is similar to that of the early of 1980s of US market, which had negative characteristics such as weak stock market and global recession, few new investment opportunities, and a shortage of qualified entrepreneurs. As US venture capital industry recommended changes in pension fund regulation, taxes, and securities laws as a way of revitalizing the venture capital industry at the end of 1970s, Korean venture capital industry has also recommended similar programs to the Korean government to revitalize the industry.

Korean government has already permitted pension fund to invest the venture fund and restructuring fund. But in order to let the pension funds and institutional investors increase their portion of investment, venture capital industry should restructure its market distorted by over-investment and high density of government regulation. The venture capital industry should represent the standard investment structure with value creation networks and standard operating procedure in fund operation as well as reliable reporting procedures for industry data. It is recommended to implement the limited partnership system to induce the huge institutional investors like pension fund all together with the fund performance disclosure system. For a while, two systems will be used in the markets at the same time. The restructuring of the venture capital industry seems to be an inevitable trend.

In conclusion, it is likely that the speed of industry development in Korea will accelerate further and bring the private equity industry closer to the US market. The revival of the venture capital market will come with the next quantum shifts, such as introduction of limited partnership, the change of industry control power from government to market, and the restructuring of venture capital market itself to prepare for the huge scale of investment capital inflow from pension funds and institutional investors.
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<th><strong>Table 9-1</strong> Comparison of Catalysts of Change</th>
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<td><strong>Fundamentals</strong></td>
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Note (1) Above comparison of catalyst of change was completed by adding Korea data on the base chart described by Walter Kuemmerle 2001, in ‘Comparing Catalysts of Change’.
Chapter 10: Recommendations

10.1 Recommendations for Government Policy

1) Transfer Control of Power from Government to Market

The government’s role was recognized as the most critical factor for the successful introduction of private equity markets in all countries which I reviewed: the United States, Korea, Japan, and Germany. Tough each country differs in terms of their stage of evolutionary development, their well organized private equity markets are uniformly a direct result of government initiatives and contributions. At the same time, all four countries have experienced the negative impacts of excessive intervention or direct capital investment to the market by the government such as the inefficiency within the United State’s SBIC program, the moral hazard issues facing the Korean venture capital industry, and the systemic failure of Germany’s WFG program.

In Germany and Japan, publicly financed venture capital firms performed poorly. In both countries the main cause for such limited success was actually that by having the government serves as a venture capitalist, the entity that disburses capital does not participate in either the upside of successful ventures or the downside of failed ones. In the case of the WFG, Germany’s government pushed reluctant German banks to participate in WFG program by guaranteeing banks reimbursements on any losses suffered by banks or investors in the WFG program. However, unreasonable contract terms, governance structures, and difficult in securing investors ultimately resulted in the WFG’s failure.

The role of the Korean government, which helped establish a successful venture capital markets and has overseen its evolution, should change from that of explorer and initiator for market introduction and growth to that of facilitator and supporter of deregulation, reduced barriers, and fair market operations. In order to stimulate the private equity market to grow as a social resource allocation system which can expand resource allocation to the more efficient and effective industries and firms, the Korean government should focus on policies which
motivate differentiation and specialization within private equity firms under fair competition.

2) Decrease the Regulatory Density
Deregulation coincided with the arrival of the Anglo-Saxon private equity firms and a wider distribution of private equity know-how among the parties involved in a functioning private equity system. (Walter Kuemmerle 2001). As I argued in the conclusion of Chapter 9, private equity markets might operate more efficiently in different environments than those in which normal financial markets function due to their abnormal market characteristics such as information uncertainty and asymmetry and their relatively riskier asset class specification. As the market grows, the legal framework and regulatory system requirements for private equity markets should also evolve to allow for more efficient market operations.

Importantly, the main domain for deregulation is the legal framework related to fundraising and fund operation standards which can influence certain characteristics of investment strategies and alter actual investment patterns. Thus, de-regulation will be linked to the introduction of limited partnerships.

3) Develop Long-term Sources of Capital
The main reason that private equity firms focused on short-term, financially structured deals is that their funds had traditionally been composed of short-term capital sources with a five year investment horizon. Injecting long-term capital opportunities into the private equity market can be one solution to this short-term capital issue as long as the ultimate goal of the market’s is to create an environment in which market mechanisms work more efficiently. Private equity markets can only grow if investors allocate more capital to the market and if longer-term investment sources become available. In Korea, while the corporate and individual investors accounted for over 50 percent of the capital resources, their investment horizons were normally shorter than pension fund investors or institutional investors and, therefore, encouraged private equity investors to search for safer and more matured private firms.

Notably, US pension funds used to invest three to five percent of their total managed assets
into the private equity market. Over 65 percent of the resources of total managed assets within venture capital firms came from pension funds, endowments, and financial institutions such as insurance firms. The Korean national pension fund, however, is comprised of only KRW 0.24 trillion even though total investment stands at KRW 133 trillion. This indicates that slightly less than 0.2 percent of its total managed assets will be invested in the private equity market in 2004. Public equity investment is set to be about KRW 4 trillion or approximately three percent. It is recommended, then, that the Korean pension funds increase the percentage of private equity investment to between three and five percent of its total managed assets. As we saw in the 10 year return figure of the private equity vs the public equity fund (figure 9-1), private equity performance has historically exceeded that of the public equity market which reveals that an expansion of the private equity portion will benefit both pension funds and their subscribers.

Meanwhile, the private equity industry should restructure its high level fundraising standards and fund operation standards to meet global private equity standards. For the purpose of understanding how the private equity industry could induce US pension funds, it is recommended that Korea benchmark the whole processes of private equity market expansion after the ERISA decision in 1979. It will be very helpful for Korean pension funds to know what kinds of requirements were requested by US pension funds and how they were implemented into revised private equity standards. Regarding the planned asset regulation, Korea’s private equity market and pension funds should develop internal fund operation standards.

The private equity market can only grow if investors allocate more capital to it and if more long-term sources of capital become available.

4) **Introduce Limited Partnerships**

The Korean private equity firms inevitably face a conflict of interest issue between managing their own capital and managing outside funds. The more traditional corporate firms which are listed in the stock market will also face a certain degree of stock market uncertainty given
intrinsic market-risk factors. As I detailed in Chapter 5, limited partnerships have evolved to solve the limitations of SBIC, corporate types, and traditional venture capital firms in the United States. It is recommended that the Korean government and private equity industry oversee the introduction of pure limited partnerships to guide the evolution of the private equity industry. Limited partnerships can serve to link the Korean private equity market with global standards.

5) Change Fundraising, Investment and Operation Standards

To solve the fund duration mismatch and abnormal investment patterns created by the short-term investment horizon, private equity fund durations should be extended from 5 to 10 years. Capital injection methods in fundraising should be changed from those which offer a one time capital injection to a capital call method. It is also recommended that the investment ratio guideline and mandatory seed capital investment requirements be deregulated in regards to venture capital fundraising. The fundraising participation by Korea’s government and pension funds should be evaluated on the basis of the investment arm’s previous track record as determined primarily via fund performance analysis. When the Korean government or pension fund entity considers investments in private equity funds, allocation methods that involve many venture capital firms should be avoided as capital commitment should instead be determined on the basis of their capabilities and performances track records.

Historically, Korean venture capital firms acquired anywhere between 10 and 20 percent of the shares of target investment firms. This share portion, which is lower than over 50 percent share ownership typically found within US venture capital investment, inevitably limits large scale influence to the portfolio firms. Private equity funds should be permitted to acquire over 50 percent of the shares within such firms and be waived from traditional holding company laws.

Increasing the fund size would be an important change for the Korean private equity industry. Larger fund sizes would foster and support the private equity industry by allowing the implementation of large scale investments, more strategic risk hedging, and the globalization
of fund operation standards which would induce foreign financial investors to participate in funds similar to how such action already occurs in US pension or global funds.

6) Introduce Reliable Reporting Systems for Industry Data
It is recommended that publicly raised funds should disclose their performance data. In addition, the Korean government and private equity fund association (KVCA, KCRA) should establish a reliable reporting system for industry data such as fundraising and investment trends on a quarterly basis in order to develop an effective market index. (Benchmarking of AVCA)

7) Strengthen the Function of Private Contracts
The Korean government recommends using standard contract forms for private equity fundraising and investment. It would be helpful for the private equity industry to follow this lead. More specified terms and conditions for contracts should be developed and used to satisfy the specific risk hedging and unique requirements for individual deals. On the other hand, this kind of direct intervention from the government can be a limit the motivation within and development of the private equity industry. Disciplined due diligence processes should be also developed as an industry standards. More detailed private contracts will offer a differentiation point within leading private equity firms.

8) Establish a Secondary Market
Because the private equity industry needs an additional exit channel to solve illiquidity issues arising from narrow exit channels, a secondary market in which investors can trade their shares or portions of funds should be established. In Korea, the establishment of a secondary market seems inevitable when one considers that many venture funds established between 1998 and 2000 have a 5 year duration and that KRW 2 trillion of venture money is housed as primary CBOs with three year durations and which will close in 2004. Private equity funds can solve this issue by trading or issuing ABS for the un-listed portfolio assets in the secondary market. The Japanese example of introducing a secondary market can serve as an effective model.
9) Reorganize the KOSDAQ Market

Strengthening the underwriting responsibility or introducing a market maker system can be one of solutions for stabilizing the KOSDAQ market. Unfair trade evolving from misinformation, less than full disclosure, or insider trading should be completely removed from the KOSDAQ market via Korean government oversight. One of the most important issues facing the KOSDAQ market is that of trying to strengthen de-listing standards which remove inefficient firms from the KOSDAQ market.

10) Stimulate the development of an M&A Market

Under the condition that IPO markets remains bleak, IPO liquidity remains rare, and pre-IPO valuation continues to decline, primary private equity-backed liquid option will surface through an M&A market. In 2003, even though the current M&A deals were not very profitable, M&A opportunities as exit channels were stable in the US private equity market. The M&A market should be considered an exit channel which promotes private equity market evolution.

In a weak IPO market, cross-border M&A might offer another alternative considering the size and advanced technology characteristics of the Korean economy. Entrepreneurs and financial investors should understand their business in the context of global business opportunities. Huge potential for the cross-border M&A as an exit channel for private equity market exists in Asia. Through a detailed restructuring process, the M&A market can also stimulate industry consolidation making the industry more globally competitive.
(Figure 10-1) IPO Trend in US Private Equity market

Deals and Amount Raised Through IPOs

(Figure 10-2) M&A Trend in US Private Equity market

Transactions and Amount Paid in M&As
11) Reform of Legislation on Insolvency and Bankruptcy

This issue is as much a legal issue as a cultural one. Generally speaking, any type of failure is viewed more negatively in Korea than in the United States. This attitude towards failure can be seen in various bankruptcy laws that punish failure in a variety of ways affecting both the entrepreneur’s business and personal life (including the possibility of prison).

When comparing this system to that in the United States one must consider whether there would exist some type of “soft landing” or several intermediate steps prior to official bankruptcy that allow for restructuring and bankruptcy protection while the management strategically realigns itself for a possible turnaround. In the United States, chapter 11 bankruptcy is designed to allow struggling businesses to reorganize. The treatment of the debtor’s creditors and holders of ownership interests and the future of its business are set forth in a plan developed by one or more parties. If the plan meets the statutory requirements and is confirmed by court, it becomes a master contract that defines the legal relationships among all parties who have claims against the debtor (James H. Reynolds, 2000).

In order to efficiently establish a private equity market as an effective resource allocation system Korea, legislation regarding insolvency and bankruptcy should be reformed to be more flexible and to, in turn, allow for the initiation of asset re-allocation in lower efficiency business sectors.

12) Implement an On-going Corporate Restructuring System

As discussed in chapter 7, previous corporate restructuring programs introduced by the Korean government regarding corporate restructuring markets had various limitations created by regulatory barriers. This differs dramatically from the United States system in which the private equity market did not have a specific description or limitation. It is recommended that Korean government introduce more flexible vehicles, temporarily called buyout private equity funds, to allow the investments to financial institution restructuring business.
10.2 Recommendations for Investors

10.2.1 Understanding of Korean Economy

Small Open Economy and High Volatility

Even though Korea established the eighth largest trading economy in the world, still its economy has the characteristic of a small open economy. Its economy is highly dependent on the global economy. Its export dependence (portion of export and import over GDP) exceeds 73 percent, compared to the 43 percent for China, 18 percent for Japan and 20 percent for the United States. This means that Korean economy is much more vulnerable to global economy change. During the past four years, the Korean government has tried to expand the domestic demand to boost the sluggish growth rate and to decrease the dependence on the outside economy. Nevertheless, it has still high dependence on export as a growth engine. This shows another a critical reason why the Korean economy needs an on-going restructuring system.

High-Tech Oriented Economy

The current Korean economy has been led by the IT industry. Represented by Samsung electronics, the electronics industry and telecommunication industry would lead the growth of Korean economy. Investment also would focus into these growing industries.

Pattern of Economic Cycle

After financial crisis, while duration of economic cycles has decreased, volatilities of economic cycles have increased, due to the increase of volatility in consumption and investment. Consumption volatility has rise from 0.24–0.79 to 0.9–1.42. In order to expand duration of economic cycles, Korea economy is recommended to enhance the relationship between the export and domestic consumption and strengthen the market function through deregulation. Even though, during the second half of 2004, continuous growth in export and steady recovery in domestic consumption are expected, major factors such as the growth rate slowdown of the Chinese economy and rising interest rates in the United States and US currency depreciation can make Korean economy unstable.
10.2.2 Future Investment Opportunity (CRC/Buyouts)

Market Climate

Slowdown of traditional corporate turnaround/special situation market
Deal opportunities, for the distressed firm under court-receivership and reconciliation and Workout have been shrunk after a steep growth in early stages. CRC industry growth rate leveled out from 2002. The portion of NPL acquisition fell down below 50 percent (by the end of 2001, NPL accounted for 70 percent). Buyouts investment has risen to 44 percent.

Excessive capital inflow
As overseas investors gain understanding of Korea’s buyout opportunities and cash-rich strategic investors try strategic expansion deals through M&A, investment capital will exceed for market opportunities.

Growing auction opportunities with valuation bubble
Similar phenomena with 1980s LBO in the US were observed in 2003. Exceptional multiple decreased opportunities for profit. Fewer deal flows generated serious competition.

Active M&A environment
The Korean government embraces M&A activities to stimulate continuous on-going restructuring activities. The government newly enacted or revised or revised M&A related regulation and laws.

Shift of capital structure in domestic industry
As government drove the larger firms’ debt ratio guided below 100%, average debt ratio has drastically decreased from 396 percent in 1997 to 135 percent in 2002.

Strong Conglomerate Policy
Korean government will drive more tightened conglomerate policy to cultivate strong governance structure. This government policy will boost M&A transaction for divestment and spin-off and asset/business-line sales
Korean Firm’s performances (2003) - Cheaper asset price

The PER (Price Earnings Ratio) of domestic firms in 2003 was shown as 9 times, significantly lower than 21 times of foreign firms. The PER of Korean electronics and steel industry was just one over fourth times. ROE (Return on Equity) comparison also showed that Korean larger firms have more profitable competitive strengths than other global firms.

As a whole, Korean firms were traded in the markets at a high discount rate due to country risk.

(Figure10-3) PER Comparison


(Figure10-4) ROE Comparison

### Future Direction (Table 10-1)

<table>
<thead>
<tr>
<th></th>
<th>Market Driver</th>
<th>Mainstream Business</th>
<th>Investment Characteristics</th>
</tr>
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<tbody>
<tr>
<td>1998~2000</td>
<td>Financial restructuring</td>
<td>Special situation (NPL purchase)</td>
<td>- Distressed situation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Passive approach</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Financial approach</td>
</tr>
<tr>
<td>2000~2002</td>
<td>Corporate restructuring</td>
<td>- Corporate restructuring</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Focused on distressed/bankrupt firms</td>
<td>- Turnaround</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Bankruptcy emergency</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Focused on financial restructuring</strong></td>
<td></td>
</tr>
<tr>
<td>2002~Future</td>
<td>Corporate restructuring</td>
<td>- Buyouts (LBO/MBO/ESOP)</td>
<td>- Normal situation</td>
</tr>
<tr>
<td></td>
<td>Focusing on enhancement of operating efficient and corporate governance structure</td>
<td>- Recapitalization</td>
<td>- Hands-on approach</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Corporate restructuring</td>
<td>- Operating value enhancement</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Focused on operational restructuring and Post-acquisition management</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Forthcoming Opportunities

#### Second Round Corporate Restructuring

Historically, at the advent of economic recovery after deep recessions or financial collapses, corporate restructuring market experienced expansion of market and capital gain opportunities due to the undervalued company valuation, lots of deal flows and easiness of value creation by the economic bounding.
As a whole, current economy recovery seems to be not so strong but steady domestic growth on the basis of strong export growth will continue from the standstill of 2003. This economic bounding will expand deal opportunities for private equity investors, with the closing of grace period under bankruptcy protection proceeding and increasing default risks of firms. Second corporate restructuring boom will introduce new buyouts deal structures.

**Economic Cycle in Korea (Figure 10-5)**

**Global demand**

Because China selected the moderating growth strategy, its global financial market would try to select other high growth economies as their next investment targets. If Korea economy meets five percent of target growth rate, compensating shrinkage in China, Korea will have another opportunity to get the spotlight in the global financial market.

**Forthcoming disposal of creditors to the stake under Workout program**

Daewoo related firms such as Daewoo Electronics and non-Daewoo related firms such as
SSangyong Motor, under workout program, will find new owners through the disposal of creditors.

**Industry consolidation**
KOSDAQ firms will find themselves facing strong pressure to restructure through industry consolidation. The IT sectors, pharmaceuticals, auto parts, and mutual banks will be a main stream for the industry consolidation.

**Conglomerate restructuring efforts**
Korean conglomerates will pursue spin-off and divestment in non-core business sectors. Kumho Tire case as a largest LBO deal will be benchmarked by other conglomerates.

**Privatization**
Within three years, the privatization of state-owned financial institutions will be hot stakes in government privatization program. Domestic financial firms will participate into acquisition bidding through establishing buyout funds.

**Corporate orphan situation**
Family owned companies will seek the divestures, which entails a control shift to new investors.
Chapter 11: Economic Modeling

Throughout this thesis, I have argued that private equity markets serve as resource allocation systems to maximize the social and economic welfare in a society. In this chapter, after defining major characteristics of private equity markets through economic modeling, I will discuss ways of introducing the private equity markets in a manner similar to the rollout of venture capital markets, NPL markets, corporate restructuring markets, and buyouts markets.

11.1 Major Characteristics as Economic Model

1) Financial Products and Competition

Private equity funds should be understood as one of many financial products. Private equity firms can serve as a producer and marketer of these financial products and can initiate the development of the private equity fund structure and investment strategies. Thereafter, they can organize limited partnerships, by selling a portion of private equity funds to limited partners. Prior to beginning this process, though, intermediary entities should build core competencies in investment strategies, human resource, track record establishment, and marketing expertise in order to sell their private equity fund product in the financial markets. After selling private equity funds, a private equity firm’s main mission will be to build a portfolio with promising investment target firms and manage them until an exit opportunity is created for the asset management firm.

This concept demands that private equity firms understand the relationship between their role and the role played by limited partners, which help guide firms to complete their responsibilities as a seller of financial products and as an asset management firm. The relationship between intermediary and limited partners will be defined in the fund structure as a part of fund operation contracts.

As a financial product, private equity funds will compete with other financial products such as public equity funds or debt financing products for social resources. Private equity markets
should, therefore, provide sustainable high IRR (Internal Rate of Return) to attract institutional investors. The American private equity industry has captured between 3 and 5 percent of the total fund assets in pension funds with higher returns on investments during the last 10 year investment horizon. Understanding how private equity funds can serve as financial products will lead us to more clearly define both the responsibilities and rights of the private equity industry.

2) Capital Supply and Capital Demand and Pricing.

In capital markets, pricing will be decided by the demand and supply of capital. In venture capital markets, capital demand will be dependent upon the number of start-up firms incorporated their capital demand for growth while capital supply will be dependent upon the fundraising capacity in the capital market. Pricing can be represented by indexing EBITDA multiples or PE ratios.

The private equity market can be, therefore, understood as a distribute resource system which moves with changes in the amount of capital supply and the degree of private equity demand. Through this concept, we can better understand the cyclic patterns observed in private equity markets.

3) Risks and Target IRR

Target IRR or the discount rate for private equity investment can be decided by the integration of intrinsic risk factors in the private equity investment activities and portfolio firms. Risk of private equity investment can vary at the proportion of three factors: business uncertainty, information asymmetry, and asset class risk inherent in private equity investment.

The venture capital market, which has higher uncertainty of business, greater information asymmetry, and riskier asset classes such as intangible, intellectual assets, need to have a higher target IRR—ideally, over 50 percent. NPL markets and restructuring markets, which deal with non-performing loan and equity in distressed firms, need a slightly lower range of target IRR—between 30 and 50 percent. Buyout markets, which deal with more stable, larger
scale firms, need even lower target IRR—between 20 and 30 percent. Corporate restructuring markets, which can drive restructuring effort within target firms with full authority provided by the combination of debt and equity, have lower risks than NPL markets which can just deal the non-performing loan lacking leverage.

(Figure 11-1) Risk Diagram of Private Equity Market

![Diagram illustrating risk in private equity market with Venture Capital Market, NPL Market, Corporate Restructuring market, and Buyout market.]

Capital gains in the private equity market can be created and enhanced by controlling the intrinsic risks of the private equity industry in four ways: first, risk diversification by
portfolio construction; second, risk mitigation by direct allocation and control; third, influence and transformation by institutional rule and regulatory changes; fourth, value creation spurred by network effects.

**Figure 11-2** Capital Gains in Private Equity Investment

<table>
<thead>
<tr>
<th>Diversification</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Investment</td>
<td>Direct allocation Control</td>
</tr>
<tr>
<td><strong>Influence Transformation</strong></td>
<td><strong>Value Creation</strong></td>
</tr>
<tr>
<td>Change of institutional rule and regulatory</td>
<td>Network effect</td>
</tr>
</tbody>
</table>
4) 4 Layers of Market Structure

The private equity market is established through a 4 layer structure such as targeted investment firms, intermediary entities, investors, and exit market. These 4 layers will be developed one at a time or in an orderly fashion. Initially, investment target firms at the industry level will be developed by the industry’s promotion program initiated by the government. Private equity firms and their supporting infrastructure—such as accounting firms and consulting firms which serve as intermediaries—will be developed. Finally, long-term investors and exit markets such as emerging stock markets and M&A market and secondary markets should be followed.

(Figure 11-3) Private Equity Market Structure
11.2 The Venture Capital Market

Introductory Stage

1) Technology Development Promotion Program
In the initial stage, the establishment of technology development centers and human resource pools are the most important mission of the venture capital industry. In countries that do not have the infrastructure for technology development, their government can establish government-driven research centers or university-based research centers. As we know, some of the most significant technology developments were initiated by military sectors in World War II and the US government’s space development program during the past several decades. Government-driven technology development programs can provide the fundamentals for technology industry to develop.

In Korea, CDMA cellular phones and TFT technology development programs are widely regarded as successful co-technology development projects among Korean government and companies and research centers. As we observed in Silicon Valley, where engineer pools came from the government technology development programs, the human resource pools trained in technology development programs will be important assets to establish in the venture capital market.

2) Venture incorporation supporting program
To stimulate the allocation of capital and human resources in the venture industry and to lower the regulatory barriers in venture incorporation, venture incorporation supporting programs with tax benefits and promotion tools are required. The Korean government introduced the Special Measures for Fostering Venture Business in 1986.

3) Legislation for venture capital programs
Venture capital is an industry that creates value by providing equity capital and managerial expertise to new businesses. Because the resources of equity capital and managerial expertise are not formed at the initial stages, a government might need to allocate more resources
during this process, which its economy can do using special measures. For this purpose, a series of laws and regulations for introducing a venture capital industry should be announced. In 1986, the Korean government introduced the New Technology Development Financial Supporting Law and the Incorporation Supporting Law for Small and Medium firms. The two laws provided the regulatory base for the Korean venture capital industry.

4) Establishing of exit market
Venture capital is also an industry that demands equity capital investment into the risky technology industry in order to achieve higher capital gains. Providing flexible exit channels for immature start-up firms will prove extremely important. This exit market can be composed of three markets: an emerging stock market for IPOs, an M&A corporate control market, and a secondary market in which venture capitalist or other investors can trade their portfolio or portions of their venture funds. The Korean government established KOSDAQ as an emerging market in 1996 and revised Securities Law Article 200 in 1997 to de-regulate the previous legal barriers that protect founders or other major shareholders from excessively hostile acquisitions. During the recent economic recession, secondary markets were requested to allow for the trading of portfolios and portion in venture funds and are currently being reviewed to determine the role they could play in supporting the venture industry’s liquidity

Developing Stage and Developed Stage

Smoothing the industry’s cyclical pattern

Historically, while the public equity stock market showed forwards advancing patterns to the economic volatilities, venture capital markets showed backwards following patterns and overshooting patterns.
The venture capital industry revealed the cyclical pattern highlighted below.
(1) Economic recession → (2) Drop of firm’s valuation → (3) Decrease of investment capital → (4) Accumulation of technology development during recession → (5) Emergence of a few successful cases, star ventures → (6) Increase in public’s concern of venture capital → (7) Surge of investment capital → (8) Hot boom of new venture incorporations → (10) Competition in deal opportunities and a surge in valuation → (11) Increase of exit opportunities and huge capital return → (12) Re-investment of returned capitals → (13) Overheating of industry → (14) Lack of qualified entrepreneurs → (15) Collapse of bubble → (16) Venture capital market shrinkage → (17) Accelerated recession.

This backwards following pattern is detailed in two studies. The first examined the determinants of venture capital supply in the 21 century and found evidence that a strong IPO volume was correlated with a high level of venture capital supply (Jeng & Well, 2000). Other evidence suggested that the venture capital industry showed vintage characteristics that certain investments, executed at specific periods, led to higher performance regardless of other factors. For the purpose of enhancing the venture capital industry and fund performance, it is necessary to understand these cyclical patterns and to use these patterns in the investment strategy in reverse way.

The government can play an important role as a guider by instituting regulations and policies designed to stimulate investment during a recession via tax benefits and supporting programs. One example could be that the FRB changes interest rates to control the growth rate and social resource allocation in its economy.

**Producing and disclosing market information**

The private equity market has a high level of information asymmetry. Investors in many countries could not access critical information such as the incorporation number of a particular start-up, its fundraising success, investment and exit trend, or fund performances. If investors can access this information in the future, they can make more effective investment decisions and ease the overaggressive characteristics typically found in the venture capital market. Venture capital associations and/or the government can be in charge of overseeing these changes.
Disciplined investment can create value
The private equity industry has a high risk, high return characteristic. Venture capitalists can enhance performance through disciplined investments such as through an organized due diligence process, negotiated deal structures, and value-added networks. Outstanding investors have persistently achieved significantly high performance returns.

11.2 NPL Market

Understanding the NPL Market
The NPL market can also be understood as a resource reallocation system. By reallocating the social resources of inefficient sectors into more efficient sectors, total societal welfare will increase. This NPL market has cyclical pattern. A country with higher volatile economy needs a on-going corporate restructuring market as well as an NPL market.

Two Axes of the NPL market
The NPL market has two functional axes: sales of bad debts and restructuring. Sales of bad debt should be executed in a fast manner for sustaining financial stability. Restructuring should be executed with the long-term goal of enhancing firms’ value. Japan expected to solve bad debt issues through an economic recovery that was geared toward increasing its collateral value. But the bad debts proved to be excessive burdens on the Japanese financial institutions. Without expeditiously handling bad debts, no economy can move forwards for a successful restructuring effort. Both countries—the United States and Korea—could solve their bad debt issues by either selling them quickly or transitioning them to other sound institutions. Notably, China and Japan both failed in their relatively loose responses.

Market Design
1) Prepare legal and regulatory systems (Securities Law, Bank Law, Bankrupt Law, M&A related Laws)
2) Establish an Asset Management Company (AMC) which has strong power
3) Permit dealing all assets of financial institutions in AMC
4) Execute rapid sales of bad debts (Implement the various sales techniques, such as auction, bulk sale, ABS and Debt-Equity Swap)
5) Induce foreign investors’ participation.
6) Activate the real corporate restructuring system
7) Be cautious for W-curve market movement, consecutive repetition of recession and recovery within a short period.

11.3 Corporate Restructuring Market

Goal
The corporate restructuring market will evolve from mere financial restructuring to more operational restructuring, from being focused on small/medium size firms to dealing with larger firms, from debt financing restructuring to equity involved restructuring, from distressed firms to sound firms. The ultimate goals of a corporate restructuring market should be building an on-going restructuring system in an economy.

Priority of Restructuring
When an economy faces serious challenges due to financial crisis, or when bad debts issues ignited by industry sectors destabilize a financial system, the first thing each government should do is to make financial systems stable and sound. Real restructuring within industry sectors can only be executed by revitalizing financial institutions. When financial markets recover confidence about the future economic stability created by a strong restructuring process to financial industry, non-financial industries can be more easily restructured due to the recovery of a firm’s collateral valuation.

Intermediary Vehicle Design
As we observed in the comparison of corporate restructuring vehicles in Korea and the United States, US private equity funds have no limitations when serving as restructuring vehicles while Korean private equity funds must be limited in the specific purposes. Private equity
vehicles should not have any limitations in order to ensure that market participants can be specialized and segmented by their expertise, target industry, or investment stage.

**Legal and Regulatory Structure**
To stimulate the handling of distressed debts and equities owned by financial institutions easier, the legal and regulatory structure for bank laws and bankruptcy laws should be revised. In order to stimulate the restructuring of financial institutions, powerful AMC should be established with capabilities that allow for both asset sales and asset restructuring. The banks’ poor assets could then be transferred to the AMC.

**Capital Supplying**
The capital required for restructuring activities can be supplied by either public or private capital. The most important issue facing capital sourcing involves executing the proper collection and protecting such activities from creating a moral hazard. Importantly, foreign financial investors can be invited to auction their bad debts.

**Exit Market Design**
As stocks recover from their recent decline, confidence in the economy’s future will increase, asset value will rise, and restructuring activities will exude more powerful influences over entire economies or financial entities pursuing capital gains. But more fully developing the role of exist markets and surging valuations will create another potential risk of overheating due to excessive capital flow. These processes will decrease the amount of deal sourcing and increase capital flow thereby creating an asset bubble.

**Strong Monitoring System**
Throughout the entire restructuring process, entities must safeguard against moral hazards and decrease short-term financial investment to ensure that the financial markets remain stable and sound. Therefore strong monitoring systems will be an important factor to ensuring a successful restructuring effort.
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