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World Bank Country Study Paper

Study on Korea's Corporate Bond Market and Its Implications on China's Bond Market Development

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ABBREVIATIONS

ATS	Alternative Trading System
BIS	Bank for International Settlements
BOK	Bank of Korea
CBO	Collateralized Bond Obligation
CIS	Collective Investment Schemes
CLO	Collateralized Loan Obligation
CSRC	China Securities Regulatory Commission
FLC	Forward-Looking Criteria
FSC	Financial Supervisory Committee
FSS	Financial Supervisory Service
IDB	Inter-Dealer Broker
IMF	International Monetary Fund
ITCs	Investment Trust Companies
ITMCs	Investment Trust Management Companies
KAMCO	Korea Asset Management Corporation
KCGF	Korea Credit Guarantee Fund
KDB	Korea Development Bank
KDIC	Korean Depository Insurance Corporation
KIC	Korea Investment Corporation
KIS	Korea Investors Service
KITC	Korea Investment Trust Company
KMCRC	Korea Management Consulting and Credit Rating Corp.
KSDA	Korea Securities Dealers Association
KSE	Korea Stock Exchange
KTCGF	Korea Technology Credit Guarantee Fund
MOF	Ministry Of Finance
MOFE	Ministry Of Finance and Economy
MSBs	Monetary Stabilization Bonds
NBFIs	Non-Bank Financial Institutions
NICE	National Information and Credit Evaluation Corporation
NPF	National Pension Fund
NPLs	Non-Performing Loans
NPS	National Pension Scheme
PD	Primary Dealer
SCI	Seoul Credit Rating & Information Inc.
SDPC	State Development and Planning Commission
SDPC	State Development and Planning Commission
SFC	Securities and Futures Commission
SITBA	Securities Investment Trust Business Act
SPC	Special Purpose Corporation
SSB	Securities Supervisory Board

EXECUTIVE SUMMARY

This report reviews the development of the Korean bond market to determine its lessons for China's bond market, which is rapidly expanding. Korea's former regulatory regime and market practices were similar to those currently existing in China.

This report points out and explores five key shortcomings of Korea's corporate bond market: heavy government intervention; the prevalence of guarantee bonds; the absence of market monitoring; the over-use of short-term bonds; and an underdeveloped government bond market. It also examines the market restructuring process and highlights some of the measures necessary for developing a more advanced corporate bond market in Korea (specifically, while Korea's corporate bond market has undergone substantial changes since the 1997 financial crisis, Korea should maintain its focus on restructuring efforts, enhancing bondholders' roles, globalization, and diversification).

Based on insights gained from examining the Korean corporate bond market, this paper makes recommendations for China's developing market. First, Korea's experience demonstrates the importance of synchronizing infrastructure and investor base development. Preferential development of an investor base without the necessary market infrastructure resulted in serious market dysfunction in Korea. Coordinating these aspects is a crucial step for developing a well-balanced, viable bond market in China.

Second, Korean market development shows that credit enhancement schemes, such as asset-backed securities and partial guarantee systems, are vital apparatuses for smooth and sophisticated advancement of the corporate bond market. To make up for the lack of efficient credit enhancement schemes in Korea, guarantee bonds with a poorly developed infrastructure prevailed.

Finally, prudential regulations and subsequent supervision should be equally stressed as China's corporate bond market undergoes deregulation and development. Although heavy government intervention may be more efficient initially, the Chinese government should deregulate the issuance and management of corporate bonds. These bonds are currently subject to overly-cautious and repressive regulation, which has resulted in a limited number of corporate bond issues, primarily by state-owned enterprises to finance infrastructure investments. The Chinese government should simultaneously strengthen certain regulations and ensuing supervisions in order to establish a dependable infrastructure and protect investors' interests.

内容提要

这份报告回顾了韩国债券市场的发展, 从中总结了对飞速发展的中国债券市场有益的启示. 韩国以前的监管体系和市场运作跟中国的当前状况很相似.

这份报告指出并探索了韩国企业债券市场的五大缺陷: 政府过度干预, 保证债券的流行, 缺乏市场监督, 过度使用短期债券, 以及发展不充分的国债市场. 报告还审视了市场结构调整的过程, 强调了一些对发展更先进的韩国企业债券市场的措施. 自 1997 年金融危机以来, 韩国企业债券市场经历了巨大变化. 韩国应当继续把重点放在重组, 强调债权人的作用, 全球化, 和多样化.

在审视韩国企业债券市场的基础上, 这份报告对中国债券市场的发展提出了建议. 首先, 韩国的经验证明了市场基础设施和投资者群体同步发展的重要性. 优先发展投资者群体而没有必要的市场基础设施, 已经在韩国导致了严重的市场功能失调. 协调好这些方面是发展一个均衡可行的中国债券市场的关键步骤.

其次, 韩国市场的发展揭示了信用升级策略, 譬如资产抵押证券和部分保障系统, 是企业债券市场稳健推进的重要工具. 为了弥补有效的信用升级策略的缺乏,在发展较差的基础设施上的保证债券在韩国很通行.

最后, 中国企业债券市场正处于放松管制和发展的阶段, 谨慎管理和相应的监督应当同等的被重视. 尽管政府重度干预在刚开始时很有效, 中国政府应当放松对企业债券发行和经营的监控. 这些债券正面临着过分小心翼翼甚至压制性的管理. 这导致了数目很有限的企业债券的发行, 而且主要限于国有企业筹资对基础设施投资. 中国政府应当同时强化某些条例管理确保监督从而建立可靠的基础设施,保护投资者的利益.

1. INTRODUCTION

The Korean corporate bond market, which is one of the most developed in Asia in terms of size and growth, has been a vital component of Korea's rapid economic advancement. Despite this success, however, significant deficiencies existed in the structure of the corporate bond market. To address these deficiencies, some of which were revealed by the 1997 financial crisis and the credit crunch of 2000, Korea has undertaken substantial reforms.

Prior to its reform, the Korean corporate bond market was similar in some respects to the corporate bond market currently existing in China. This paper[1] examines the history and organization of the Korean corporate bond market and compares it to the emerging market in China. Through an analysis of Korea, significant implications for China's corporate bond market will arise.

The most prominent similarity between the early Korean and current Chinese corporate bond markets is the existence of heavy government intervention, e.g., China's bond issuance quality control schemes. In addition, China's government shapes the nation's interest rates, similar to Korea's earlier situation. Like the pre-financial crisis period of the Korean bond market, the Chinese market is dominated by mandatory bond guarantees. Moreover, banks currently carry the most influence in the Chinese debt market, as was the situation during Korea's early days.

To remedy these internalized shortcomings, Korea's corporate bond market has seen significant structural changes since the 1997 financial crisis. Changes include the introduction of credit enhancements such as asset-backed securities and partial guarantees; an increased awareness of the importance of credit analysis and credit ratings; and the recognition of creditors' critical roles. Moreover, investors began to take more responsibility by closely monitoring issuers' credit ratings and performances.

To help implement these changes, the Korean government undertook various initiatives to transform the basic infrastructure of the country's bond market. It shifted its primary role from direct market involvement to prudent regulation and supervision, and consolidated separate supervisory bodies for greater management proficiency. Korea's bond market is still vulnerable to a number of external and internal challenges, however, such as unpredictable macroeconomic variables and the recurrent credit crunch. The government and market participants must continue to work together to devise feasible solutions to overcome such trials.

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[1] This paper was written by a World Bank consultant, Junghoon Park, under the general oversight of Yongbeom Kim (Financial Sector Operations and Policy, The World Bank). The findings, interpretations, and conclusions expressed in this paper are entirely those of the author. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

The transformation of Korea's corporate bond market may provide meaningful insights for China in relation to the ongoing development of its own corporate bond market. To that end, this paper presents an overview of the Korean corporate bond market (chapter 2); provides an historical overview of the development of the bond market (chapter 3); addresses problems in the bond market prior to the 1997 financial crisis and Korea's restructuring efforts thereafter (chapter 4); discusses the future direction of Korea's corporate bond market (chapter 5); and summarizes the implications for China's corporate bond market in relation to Korea's experience (chapter 6).

2. OVERVIEW: THE KOREAN CORPORATE BOND MARKET

2.1 Current Market Status

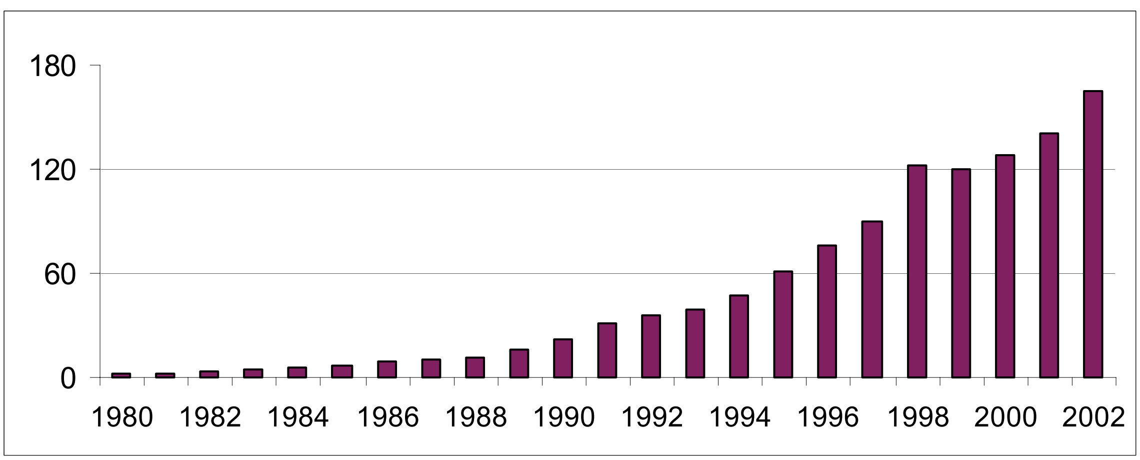
2.1.1 Characteristics of Corporate Bond Markets

Market Size & Growth

At the end of 2002, the Korean corporate bond market reached 166 trillion won (US$138 billion), which accounted for approximately 27.8 percent of national GDP[2] (see Figure 1). From 1980 until 1999, the corporate bond market averaged growth of 23 percent per year, with a temporary boom period in 1998. In mid-1999, however, the bankruptcy of the Daewoo business group eroded investor confidence in corporate bonds and Investment Trust Companies (ITCs), chilling the corporate bond market.[3] In 1999, for the first time, the market recorded negative growth (-2 percent), and it is still struggling to regain the momentum it enjoyed prior to the Daewoo crisis.

Figure 1: Growth of the Corporate Bond Market in Korea

(Unit: trillion won)



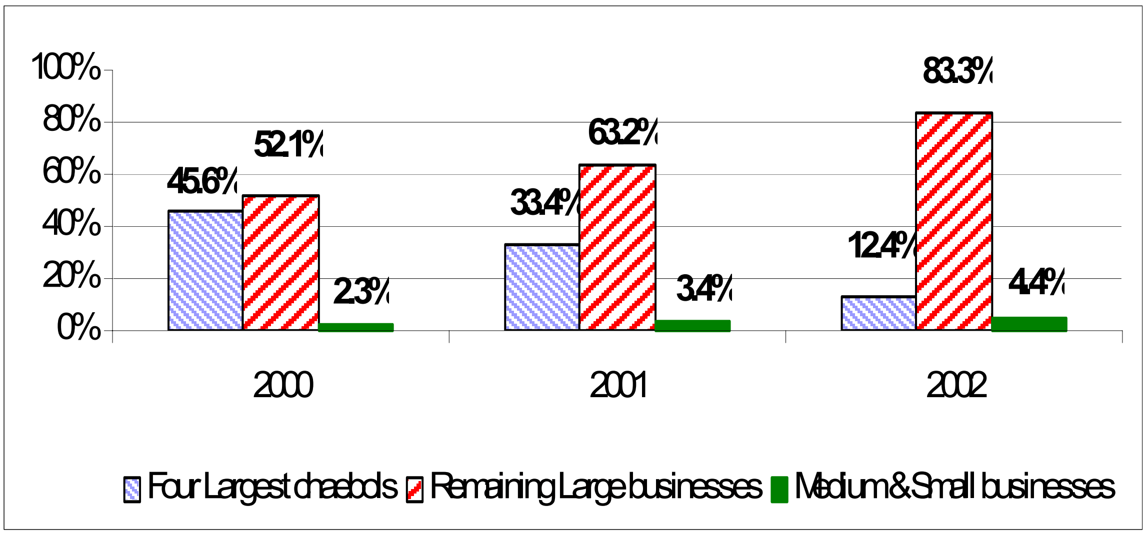
Source: Bank of Korea, "Monthly Bulletin", Financial Supervisory Service (after 2000)

[2] Bank of Korea, GDP (2002): 596.04 trillion won (estimated).

[3] The ITCs collectively held 77% of Daewoo's outstanding bonds and commercial paper, worth about 22 trillion won in face value.

Issuers of Corporate Bonds
In 2002, the four largest conglomerates, or *chaebols*—Samsung, Hyundai, LG and SK—accounted for 12.4 percent of total corporate bond issuances. Remaining large businesses, and medium and small businesses[4], represented 83.3 and 4.4 percent of bond issuances, respectively. As Figure 2 shows, the big-four *chaebols'* stakes in total new bond issuances have decreased substantially since 2000, while the share of large, medium and small businesses increased. This trend might not continue in the future, however, as the decreasing share of the *chaebols'* bond issuances was mainly due to regulatory measures during the financial crisis (in particular, a requirement that the *chaebols* lower their debt-to-equity ratio below 200 percent).[5] Another factor contributing to the decline was a decrease in the companies' equipment investments following the crisis, due to the high uncertainties of business prospects.

Figure 2: Transition of Corporate Bond Issuers



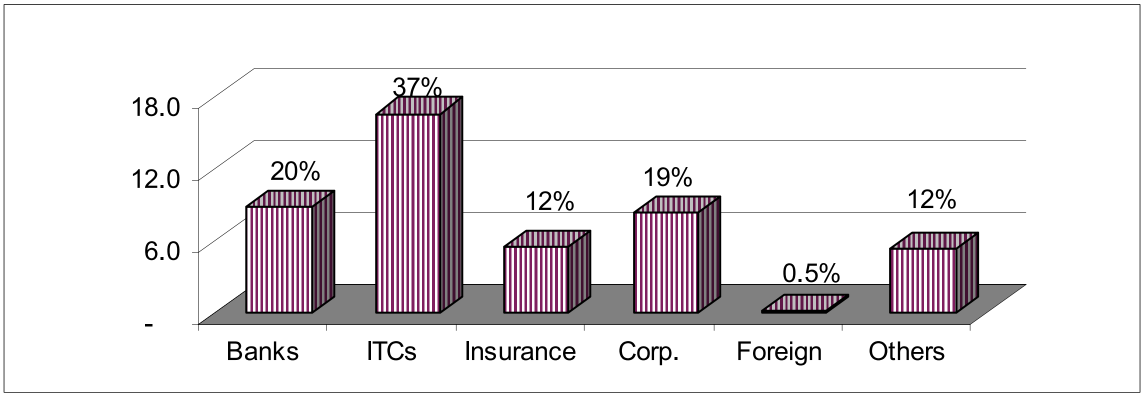
Source: Financial Supervisory Service, Korea Stock Exchange

Corporate Bonds Investors
The financial sector is the largest investor in the corporate bond market, holding approximately 80 percent of the total corporate bonds issued in 2002. Major bondholders among financial institutions are banks and ITCs, which tend to hold bonds to maturity. In 2002, ITCs and Investment Trust Management Companies (ITMCs) accounted for 37 percent of outstanding corporate bonds (see Figure 3), banks held 20 percent, and insurance companies (mostly life insurance) held 12 percent.

[4] In Korea, a medium or small business is generally defined as a company which employs fewer than 300 persons or whose paid-in-capital amounts to below 8 billion won. More specific standards on the classification of medium and small business are set forth in Article 2 of the Framework Act on Small and Medium Enterprises.
[5] Debt-to-equity ratio (1998 and June 1999): Hyundai, 449% and 341%; Daewoo, 526% and 588%; Samsung, 276% and 192%; LG, 341% and 246%; and SK, 355% and 227%. Regulatory measures taken after the 1997 financial crisis are addressed at section 4, below.

Figure 3: Corporate Bond Investors in 2002

(Unit: trillion won)



Source: Korea Securities Computer Corp.
Note: "Corp." in Net Investment by Investors includes government sector.

Because of the long-term nature of their liabilities, insurance companies tended to hold their bond investments until maturity. Securities companies have invested relatively few assets in bonds, which they acquire primarily for market-making purposes and trade short term. Individual investors held 2 percent of the total, and foreign investors take only a slight share in the total bond market.

2.1.2 Status of Corporate Bonds in the Korean Bond Market

Primary Market

The corporate bond market is the largest of six main bond markets in Korea[6], amounting to 165.5 trillion won (US$ 138 billion), or 27 percent of the total bond market, in 2002.[7] See Figure 4. Despite this overall size, the share of corporate bonds in the total bond market has decreased 11.4 percent since 1997 (from 38.4 percent of the total), when corporate bonds occupied a strong position in Korea. See Figure 4. The share of the corporate bond market in 2002 is also far behind the average portion (36.5 percent) of corporate bonds over the last twenty years starting from 1980.[8]

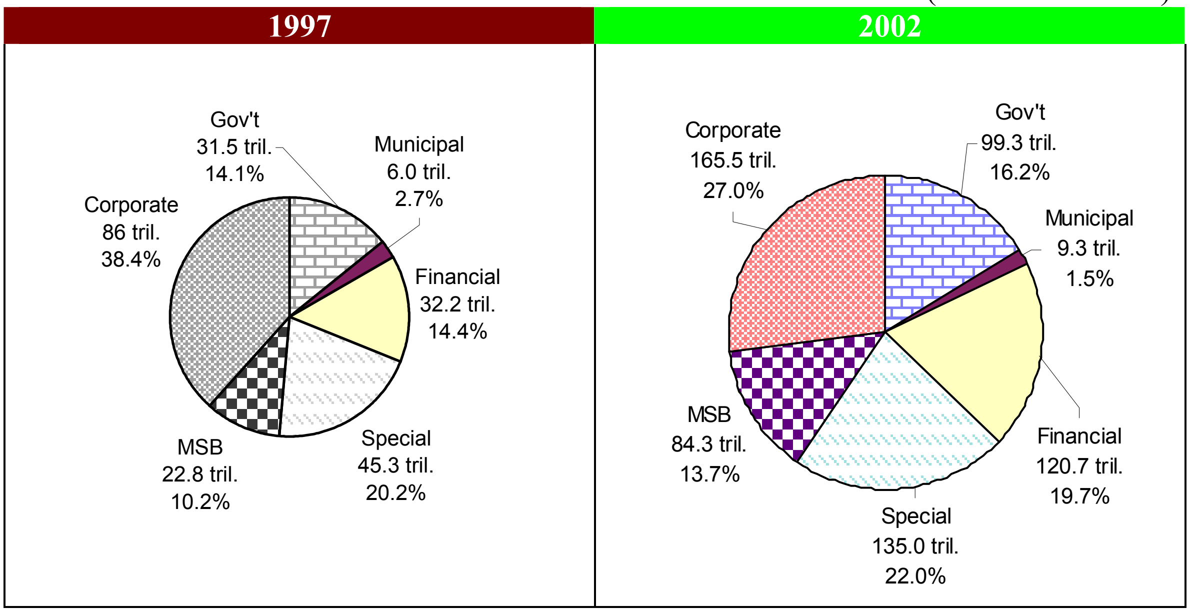
[6] Five other significant bond markets in Korea are government, municipal, and special (law) bonds, Monetary Stabilization Bonds (MSBs) issued by the central bank, and financial bonds. Special, or law, bonds are issued under authority given to various public firms to raise funds for their projects and facilities by issuing corporate bonds. They may be issued with or without explicit or implicit government guarantee. The major issuers include Korea Depository Insurance Corporation (KDIC), Korea Land Development Corp., Korea Electric Power Corp (KEPCO) and Korea Technology Development Corp. Financial bonds are issued by financial institutions such as banks, credit card corporations, and leasing companies. Special, MSBs and municipal bonds are also known as public bonds.

[7] Total outstanding domestic bonds as of year-end 2002 amounted to 614 trillion won (US$ 511 billion), a 174 percent increase over the prior five years (from 223 trillion won (US$ 233 billion) in 1997). At the same time, the total outstanding value of government, municipal, financial, special, and MSB bonds stood at 99.3 trillion won (US$ 82.8 billion), 9.3 trillion won (US$ 7.8 billion), 120.7 trillion won (US$ 100.6 billion), 135.0 trillion won (US$ 112.5 billion), and 84.3 trillion won (US$ 70.3 billion), respectively.

[8] Bank of Korea "Monthly Bulletin", Korea Securities Computer Corp.

Figure 4: Transition in the Share of Korean Corporate Bonds Between 1997 & 2002

(Unit: trillion won)



Source: Korea Securities Computer Corp.

The primary reason for this drop of the corporate bond share in the bond market is an increase in the volume of government and public bonds, outpacing the growth rate of corporate bonds. The public sector increased the issuance of Treasury Bonds, MSBs and other public bonds via Korean Depository Insurance Corporation (KDIC)[9] and Korea Asset Management Corporation (KAMCO)[10] bonds to finance budget deficits and ongoing financial and corporate restructuring initiatives that began in the late 1990s. Issuances of financial bonds by credit card companies have also increased, especially in recent times, to meet increasing consumer demand for credit card loans. As a result, the total outstanding value of government, financial, special and MSB bonds rose by 68 trillion won (US$ 57 billion), 89 trillion won (US$ 74 billion), 90 trillion (US$ 75 billion), and 62 trillion won (US$ 52 billion), respectively, from 1997 to 2002, while the increase of corporate bonds was 80 trillion won (US$ 67 billion).

Secondary Market

The secondary bond market in Korea is still maturing, and has been aided recently by the stock market. The secondary market is divided into the Korea Stock Exchange (KSE)

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[9] KDIC was established in June 1996 based on the "Depositor Protection Act." The KDIC acts as the guarantor of deposits up to a certain amount and maintains the Deposit Insurance Fund (DIF) as a resource to make payments to depositors in case an insured financial institution becomes insolvent. The DIF is accumulated through many sources, including insurance premium revenues (remitted by the insured financial institutions), proceeds of bonds issued by the Deposit Insurance Fund, and contributions from the government and insured financial institutions.

[10] KAMCO was established based on Article 53, paragraph 3, of the Korea Development Bank Law in 1962. It was commissioned by the government to manage and dispose of Non-Performing Assets (NPA) in the financial sector and state-owned properties. On November 24, 1997, KAMCO was re-established to enhance and expand its role. At the same time, the Non-Performing Assets Fund was created to acquire, manage and dispose of NPAs for financial sector restructuring.

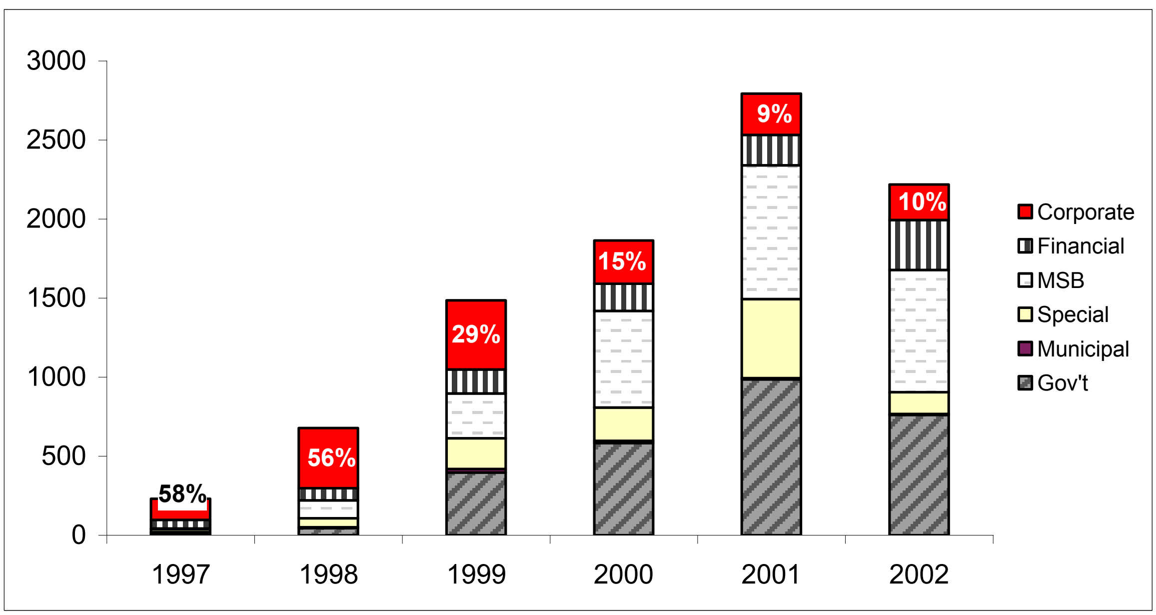
and the Korea Securities Dealers Association's (KSDA) over-the-counter (OTC) market. The KSE offers competitive trading of listed bonds only, while in the OTC market both listed and unlisted bonds are traded. Bonds are traded directly between individual investors and securities firms or financial institutions.

The OTC market accounts for 96 percent of the total trade volume in 2002.[11] It is generally regarded as the more attractive bond trade market because it offers lower trading costs and more flexible terms of trade. The listing of debt securities on the KSE is largely a formality designed to enhance acceptability, as most institutional investors are prohibited from investing in unlisted securities.

In the past, the secondary market experienced liquidity constraints because institutional investors, who comprise approximately 90 percent of the total bond investor group, operated with a "buy-and-hold" investment strategy.[12] However, the sizeable growth of the domestic bond market, active ITC participation, and improved discipline in portfolio management have all contributed to building greater depth and liquidity. For example, the total volume of traded corporate bonds grew significantly between 1997 and 2002, from 133.2 trillion won (US$ 139.3 billion) to 224.2 trillion won (US$ 186.6 billion) (with an exceptional year in 1998-1999 when the volume surged to 381.5 trillion won (US$ 272.7 billion) and 436.9 trillion won (US$ 367.5 billion), respectively). See Figure 5. Nevertheless, the corporate bond market was a mere 10 percent of all bond trading in 2002, a remarkable decrease from 58 percent in 1997 and 56 percent in 1998.

Figure 5: Bond Trading Volume in the OTC Market

(Unit: trillion won, %)

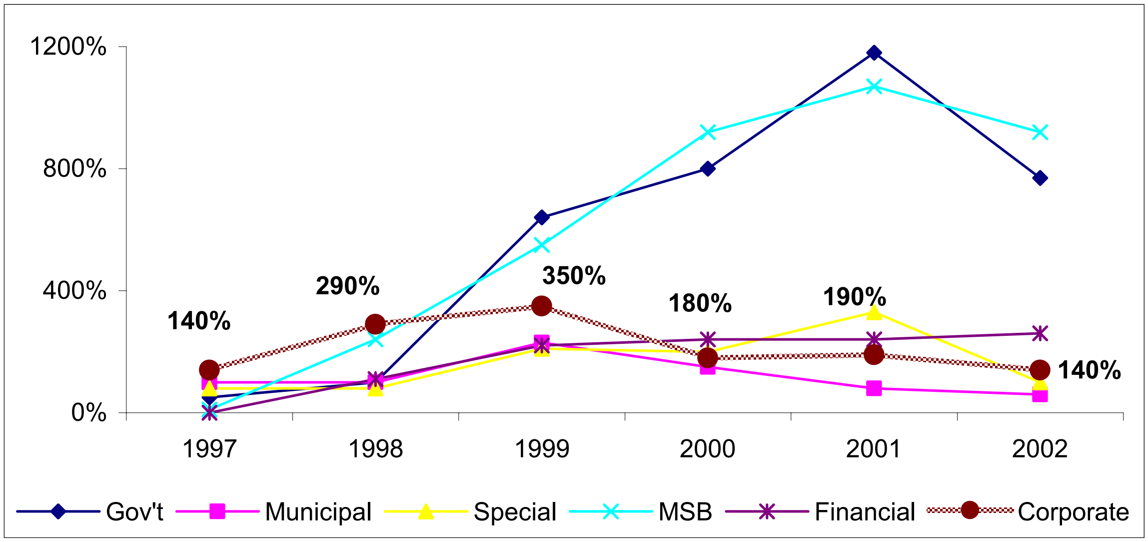


Source: The Korea Securities Dealers Association

[11] The Korea Securities Dealers Association.
[12] Bank of Korea, "Flow of Funds."

In addition, the turnover ratio of corporate bonds rose temporarily from 140 percent in 1997 to 350 percent in 1999. In 2002, the quotient returned to 140 percent, while the turnover ratio of government bonds and MSBs in the same year skyrocketed to 770 percent and 920 percent, respectively, from a corresponding 50 percent and 10 percent in 1997. See Figure 6.

Figure 6: Turnover Ratio of Korean Bonds Post-1997



Source: The Korea Securities Dealers Association

In sum, mainstream bond trading has largely converted to embrace government bonds and MSBs since 1999. There are three main reasons for this change. Most obviously, as indicated earlier, issues of government and public bonds increased dramatically. Secondly, the government's renewed efforts to develop government bond markets paved the way for improved secondary market trading; salient measures included introduction of a fungible issue; the primary dealer (PD) and inter-dealer brokers system; diversification of term structures; and a more market-oriented issuance system. Finally, bond market investors demonstrated risk aversion tendencies in reaction to the Daewoo bankruptcy and ITC crisis.[13]

2.1.3 Status of the Korean Corporate Bond Market in Asia

The Korean corporate bond market is currently the second largest market in Asia, with a total market value of US$110 billion, or approximately 16 percent of all Asian outstanding bonds as of 2001. Table 1 represents outstanding local currency denominated bonds in Asian countries in 2001. Japan possessed the most dynamic bond market with a total value of US$410 billion, representing approximately 60 percent of the entire Asian corporate bond market. Each of the remaining markets holds values below US$50 billion.

[13] The Daewoo bankruptcy and ITC crisis are addressed below, at section 3.

Table 1: Outstanding Local Currency Denominated Bonds

(Unit: US$ billion)

	Percentage of GDP (2001)[a]		Amount[b]
	Domestic Bonds	Corporate Sector	Corporate Bonds
Japan	143.0%	10.5%	US$410 billion
Korea, Rep. Of	69.3%	27.8%	US$110 billion
Hong Kong, China	26.8%	3.1%	US$46 billion
Singapore	37.4%	4.6%	US$44 billion
Malaysia	93.4%	50.6%	US$33 billion
Taipei, China	17.0%	N/A	US$21 billion
Thailand	33.7%	5.0%	US$11 billion
China, People's Rep. Of	28.7%	0.7%	US$6 billion
Indonesia	1.5%	N/A	US$3 billion
Philippines	32.0%	N/A	US$1 billion

Source: IMF (2002) and Salomon Smith Barney, "Guide to Asian Bond Markets 2002"

Note: 1) N/A: Not available

2) [a] Except for Indonesia (2000); Philippines; and Taipei, China (1997-1998)

3) [b] Estimated by author based on "Guide to Asian Bond Markets 2002"

2.2 Legal and Regulatory Framework

2.2.1 Regulatory Bodies

The Securities and Exchange Act is the primary law governing securities issuance and trading practices. The Act addresses both government regulatory bodies and self-regulatory organizations.

Government Regulatory Bodies

The Korean government oversees the securities market through the Ministry of Finance and Economy (MOFE) and Financial Supervisory Committee (FSC). The MOFE and FSC have a regular, cooperative relationship.

The MOFE sets medium- and long-term economic policies; designs and implements policies on financial system and markets; implements tax- and taxation-related policies; manages the national treasury and resources; and establishes the foreign debt management system. The MOFE is also responsible for proposing laws and amendments related to financial policies, including those concerning financial market stabilization.

Established in April 1998, the FSC is a consolidated financial supervisory body that oversees the four separate sectors of the financial system, namely securities, banking, insurance, and thrift. Although the FSC falls under the prime minister's jurisdiction, its duties are performed independently of the prime minister's office and other government agencies. The Financial Supervisory Service (FSS) serves as the executive body of the FSC. All financial institutions are subject to FSC and FSS supervision.[14] In addition, the

[14] Prior to the first amendment of the Securities and Exchange Act in 1976, the Ministry of Finance (MOF), which is the predecessor of the current MOFE, had authority over all matters related to the securities

FSC founded the Securities and Futures Commission (SFC)[15] as its sub-Commission to administer the securities and future market-related issues.

Self-Regulatory Organizations

The two most prominent self-regulatory organizations in Korea's capital markets are the KSE and KSDA.[16]

As of September 2002, the KSE had 30 regular members, 21 special members and one Alternative Trading System (ATS) member.[17] Of these 52 members, 15 were foreign securities firms. The KSE is authorized to supervise and regulate trading of stocks and exchange-traded stock derivatives to ensure fair market practice. It monitors abnormal trading activities and watches member firms' and customers' compliance with KSE rules. It cooperates with the SFC in investigating suspected illegal practices, focusing principally on market manipulation and insider trading.

The KSDA, established in November 1953 as a non-profit organization, became a legal self-regulatory entity under the revised 1997 Securities and Exchange Act. Its central mandates consist of maintaining fair trading practices among members, protecting the interests of investors, operating the KOSDAQ stock market, and managing securities professionals. The OTC market falls under the direct supervision of the KSDA.

2.2.2 Securities-Related Laws

In addition to the Securities and Exchange Act, there are four major securities-related laws in Korea: the Commercial Code; the Futures Trading Act; the Securities Investment Trust Business Act (SITBA); and the Securities Investment Company Act.

The 1962 Commercial Code governs commercial and corporate activities. For example, when drafting articles, companies must refer to the Code for details, such as information regarding the total shares authorized for issuing and the par value of each share. Only private corporations recognized under the Code can issue corporate bonds. Accordingly,

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market. In February 1977, in accordance with the amendments to the Securities and Exchange Act, the government formed the Securities Supervisory Board (SSB) to administer key provisions relating to the securities market. This semi-independent regulatory body was designed to monitor daily market operations and related businesses and issue regulations and guidelines as necessary. As a supervisory arm of the MOF, its activities were aligned with government-led policies relating to securities issuance and fair market enforcement. A new amendment to the Securities and Exchange Act in February 1998 abolished the SSB, transferring all authority to the FSC. To minimize confusion, the existing supervisory bodies of the banking, securities, and insurance sectors, along with the Credit Management Fund, assumed the same responsibilities under the FSC. On January 1, 1999, the four separate supervisory institutions were integrated into a single agency, the FSS.

[15] The Vice Chairperson of the FSC is the head of the SFC.

[16] Other self-regulatory organizations include the KOSDAQ Stock Market Inc.; the Korea Securities Finance Corporation; the Korea Securities Depository; the Korea Listed Companies Association; the KOSDAQ Listed Companies Association; and the Korea Investment Trust Companies Association.

[17] Regular members have both voting rights and claims to the KSE properties, while special members have only the right to trade at the market. The KSE introduced ATS membership to allow ECN-type proprietary trading system to use KSE market information for off-hours securities trading.

corporate bonds may be distributed through public offerings, the maximum amount being four times the net assets most recently recorded by the issuing company.

The Futures Trading Act was enacted in 1995 to safeguard investors and contractors, as well as to foster future markets. This act addresses the structure and operations of futures markets (including the overall operations of futures exchanges); the licensing and regulations of futures companies; the establishment of the futures association as an autonomous and regulatory organization; and the establishment of supervisory authorities of the regulators (*i.e.*, the FSC).

The 1969 SITBA regulates the securities investment trust business. It is designed to protect beneficiaries of investment trusts and to facilitate securities investment for the public. SITBA controls the contractual-types of investment trusts, the licensing of fund management companies, and the activities of fund management companies and trustees.

The Securities Investment Company Act was enacted in September 1998 to provide investors with various instruments and to advocate the development of Korea's capital markets. Under this act, corporate-type mutual funds must register with the FSC to invest in securities. Since a securities investment company is only a paper company, it must transfer its investment activities to a fund management company. The fund management company must be a corporate-type company established under the Commercial Code and licensed by FSC. Investors become shareholders of the company and receive proceeds of the investment.

3. HISTORICAL OVERVIEW OF BOND MARKET DEVELOPMENT

3.1 Market Development: Inception to the 1997 Financial Crisis[18]

3.1.1 Introduction

The first corporate bond in Korea was issued in 1963 by Ssangyong Cement, fourteen years after the newly independent government issued its first Nation Funding Bonds in 1949. Until the late 1960s, however, both the public and private sectors depended heavily on overseas and local bank loans rather than on financing through bonds. To encourage the rapid growth of the corporate sector, the government aggressively intervened in bank credit allocation practices through tight interest rate controls and direct bank ownership. As a result of the favorable treatment banks received relative to other financial institutions, they became the dominant players in the debt market.

While establishing Korea's domestic debt market, the government realized the benefits of corporate bonds. In particular, bonds were seen as superior to limited indirect financing routes, such as bank loans, for corporations' long-term and large-scale financing needs. Despite lacking the proper infrastructure and hands-on experience, the government

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[18] Appendix 1 displays the basic framework of Korea's corporate bond market before 1997.

devised an ambitious bond market development strategy. This included creating demand for bonds, by building an investor base and encouraging investors to buy bonds through credit enhancements.

3.1.2 Building an Investor Base

To create demand, the government worked to build an investor base. In 1968, the Capital Market Promotion Act was enacted to promote equity and bond markets. The 1969 Securities Investment Trust Business Act (SITBA), and subsequent related presidential decrees and enforcement ordinances, introduced the contractual-type investment trust as an efficient vehicle to mobilize domestic capital. The SITBA also authorized the Korea Investment Corporation (KIC)[19] to engage in the investment trust business and other market-making activities. In 1974, the KIC's investment trust function was transferred to the newly-established Korea Investment Trust Company (KITC), the first ITC in Korea. Two other ITCs, Daehan and Kookmin, were established in 1977 and 1982, respectively, and the trend continued as five more ITCs launched in 1989. Between 1996 and 1997, 23 new Investment Trust Management Companies (ITMCs) entered the investment trust market.[20] Consequently, the size of contractual-type fund assets under ITC management grew drastically—from 240 billion won in 1978 to 3.6 trillion won in 1983—and then expanded even more rapidly during the mid-1980s.[21] Fund assets continued to grow, thanks to mounting personal savings habits and increases in the number of investors interested in trust products.

Pension funds and insurance companies also played significant roles as institutional investors in the corporate bond market.[22] The increasing role of NBFIs as investors resulted in the substantial erosion of the once-dominant market position of money-deposit banks (from 29.2 percent during 1970-1974 to 19.2 percent during 1990-1994)[23], however.

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[19] KIC was established as a state-owned corporation to stabilize prices and facilitate the issuance, distribution and underwriting of securities. Until its liquidation in 1977, the KIC performed various other functions including enacting open market measures to stabilize prices, analyzing securities, financing securities on the basis of collateral, and making payment guarantees of corporate debt securities.

[20] While ITCs play multiple roles—fund managers, beneficiary certificate sellers (distributors) and investment advisors—ITMCs specialize in fund management and investment advisory services.

[21] Korea Investment Trust Companies Association, "Securities Investment Funds in Korea" (Nov. 2001).

[22] In particular, the role of the National Pension Fund (NPF) has increased in importance due to remarkable fund growth and increasing investments in bonds. When the National Pension Scheme (NPS) was implemented in 1988, the size of the NPF's investments increased from 0.5 trillion won in 1988 to 28.3 trillion won (US$ 29.6 billion) in 1997. Currently, the size of total investments amounts to 91 trillion won (US$ 72 billion), of which bond investments account for 51 percent. National Pension Corporation, www.npc.or.kr.

[23] Bank of Korea, "The Financial System in Korea" (1995). This decline is partially an outcome of the government's favoring non-bank financial intermediaries—ITCs and merchant banks—over commercial banks. Another contributing factor involves the relatively lower cost of intermediation for NBFIs. NBFIs have a cost advantage over banks, which have to operate a large number of branches, and also enjoy an investment volume advantage since their clients deal with larger deposits and loans. Further, NBFIs have always been privately owned (mostly by *chaebols*) and subject to less government scrutiny and protection compared to other financial institutions. The government is not committed to bail out NBFIs in the event

In 1983, commercial banks introduced an investment vehicle called bank trust accounts and employed this new tool to enter the trust business.[24] Trust accounts became popular with bank clients because they were *de facto* guaranteed at the same level as deposit accounts but offered higher returns. Bank trust accounts usually promised a return of principal and fixed dividends, despite the fact that they were floating-rate dividend products. As a result, investors viewed these accounts as high-return, quasi-bank deposit products with satisfactory safety nets. For this reason, until 1997, the size of bank trust accounts increased at an average annual rate of 29.7 percent.[25]

The rise of bank trust accounts also contributed to the growth of bond markets because trust account portfolios included sizable investments in corporate bonds, commercial paper, and central bank notes. The share of loans from trust accounts decreased from around 50 percent in the early 1990s to 23 percent in 1999, while the share of securities investments increased to 71 percent in 1999.[26] The reason behind the drop in loans from trust accounts lies in the decreased demand for loans by large enterprises.

3.1.3 Use of Guarantees as Credit Enhancements

As a complementary measure to developing an investor base, the Korean government had to devise a safety net to encourage investor confidence, and thus, participation, in the bond market. This prompted the emergence of the bond guarantee scheme. As a first step, the Korean Investment Corporation (KIC) was selected as the sole guarantor of bonds in 1972. Korea Guarantee Insurance Company was allowed to start guaranteeing bonds to cope with increasing demands for bond guarantees in 1978. In 1989, the government established the Hankook Fidelity and Surety Company to increase financial support for individuals and small businesses.

Guaranteed bonds were dominant in Korea until 1997. During the two decades preceding the economic crisis, guaranteed bonds accounted for 85 to 90 percent of the corporate bond market (see Figure 7).[27]

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of insolvency. Therefore, compared to banks, NBFIs operate more independently and have been highly effective in mobilizing funds and financing businesses.

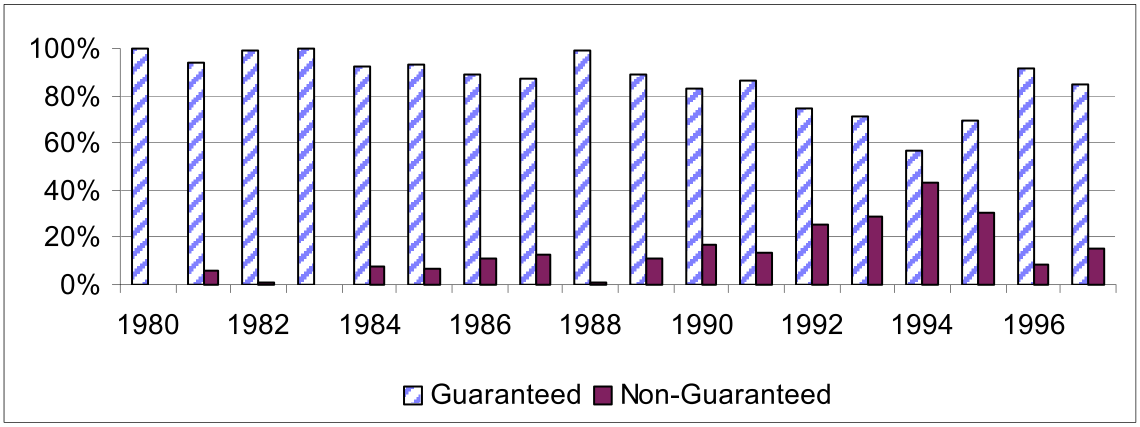
[24] Trust business in banks formerly had been the exclusive domain of the Bank of Seoul and Trust Company.

[25] Korea Institute of Finance, "Future Direction of Bank Trust Accounts" (Oct. 2000).

[26] Korea Institute of Finance, "Future Direction of Bank Trust Accounts" (Oct. 2000).

[27] Securities Supervisory Board: 1992, 74.7%; 1993, 71.6%; 1994, 57.2%; and 1995, 69.8%. The only exception was during the period between 1992 and 1995, when corporate bond quantities were regulated. Under the quantity control mechanism, the government placed higher priority on issuing non-guaranteed bonds over guaranteed bonds, encouraging companies to issue non-guaranteed bonds. The quantity control mechanism is addressed at section 4.1.1, below.

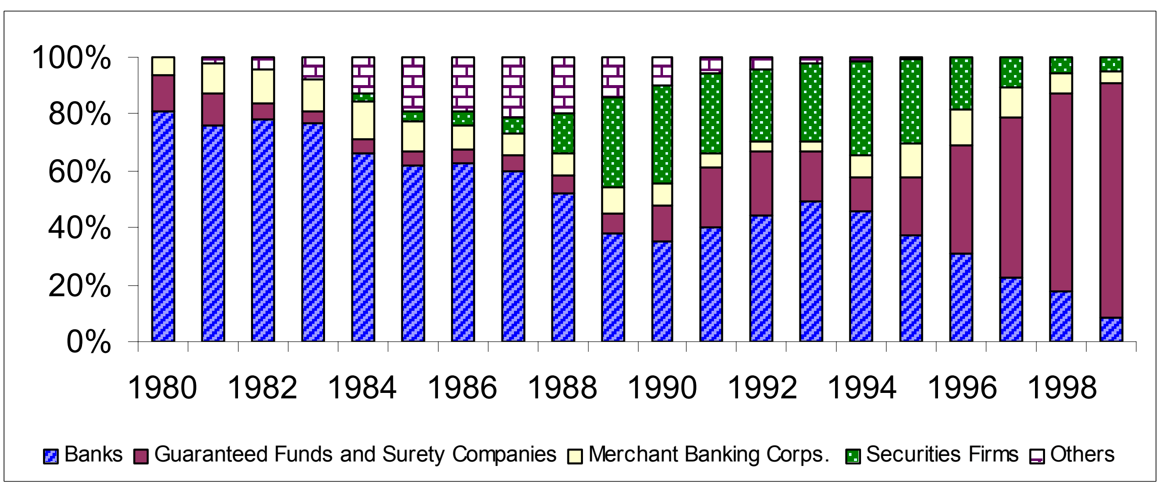
Figure 7: Transition of Guaranteed Bond Share from 1980 to 1997



Source: Securities Supervisory Board, "Monthly Review of Securities"

The government's bond guarantee scheme included the explicit guarantees of financial institutions such as banks and securities firms. Thus, by the 1980s, banks were the major guarantors, accounting for more than 50 percent of all guaranteed bonds.[28] Banks (and other NBFIs) entered the corporate bond guarantee business[29] because the business was considered to be low-risk and high-return, especially given the economic growth of the 1980s.[30] As a result, and as demonstrated by Figure 8 below, prior to 1997, banks, merchant banks, securities firms, and guarantee insurance companies competitively participated in the bond guarantee market.

Figure 8: Guaranteed Corporate Bonds by Guarantor



Source: Financial Supervisory Service (after 1999), Securities Supervisory Board (before 1998)

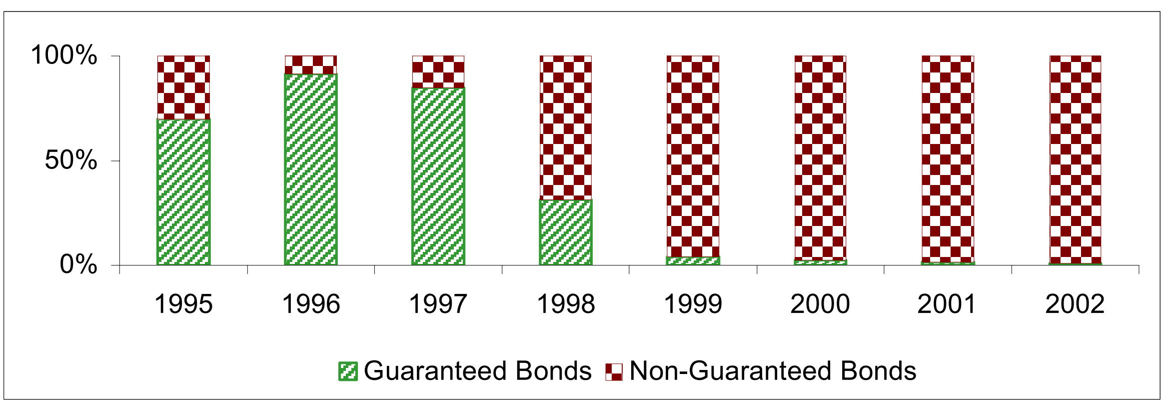
[28] Securities Supervisory Board, "Monthly Review of Securities."
[29] Banks, N/A; merchant banks, 1984; securities firms, 1984.
[30] In the 1980s, while the Korean economy had annual growth of more than 6 percent, the guarantee industry grew at roughly 17 percent per year. From the early 1990s, the guarantee industry began to suffer from low growth and large losses due to competition between the two guarantee insurance companies, as well as the downturn in the Korean economy.

Banks relinquished their dominant position in the market when government guarantee funds and guarantee insurance companies contended aggressively in order to survive the fierce competition in the market. By 1997, the guarantee insurance companies and government guaranteed funds took up 56 percent of guaranteed outstanding bonds, while banks accounted for only 23 percent (see Figure 8).

As Figure 8 also shows, however, most guarantors other than guaranteed funds and surety companies left the market after the 1997 financial crisis. Reforms instituted during and after 1997 either made it more expensive for banks and NBFIs to provide guarantees, or explicitly limited their authority to do so. For example, banks were required to hold capital against bond guarantees as though they were direct loans. For securities companies, the maximum limit for bond guarantees was reduced from 200 percent of equity capital to 100 percent in August 1997, and the guaranteeing of new bonds was prohibited altogether from 1998.

Other factors also contributed to the departure of guarantors from the market after the 1997 financial crisis. The economic downturn resulted in the bankruptcies of many companies, which increased the risks to bond guarantors. As private sector bond guarantors came to better understand the risks inherent in the guarantees, they either had to forfeit the relatively marginal revenues from guarantee fees, which they previously regarded as risk-free and profit-guaranteed; or offer bond guarantees at much higher fees, which were not accepted by bond issuers. Figure 9 shows that guaranteed bonds in Korea dropped substantially after the 1997 financial crisis (and had almost disappeared by 2002).

Figure 9: Share of Guaranteed and Non-Guaranteed Bonds Since 1995



Source: Financial Supervisory Service

3.2 Corporate Bond Market After the 1997 Financial Crisis

3.2.1 ITC Boom and Bust

ITC Boom

The corporate bond market, which experienced average growth of 23 percent per year from 1980 through 1999, had a temporary boom period in 1998.[31] This boom occurred in part because the business sector needed to raise more funds from the corporate bond market in the aftermath of the 1997 financial crisis. In particular, financial institutions in the midst of restructuring were reluctant to extend loans to the corporate sector or to provide credit guarantees.

To address this these problems, the government raised the Commercial Code ceiling on individual firms' corporate bond issuances from double their net assets to four times net assets.[32] In 1997, the government also eliminated any foreign investment restrictions in domestic bonds. While the initial impact of these measures was relatively insignificant, market-driven factors enabled the corporate sector to raise funds on a vast scale by issuing non-guaranteed bonds, especially as interest rates declined sharply after a 1998 peak.[33] With this abrupt downturn of interest rates, there was a surge of funds to ITCs, particularly their beneficiary certificates, which were guaranteed to provide higher returns. ITCs therefore had more money to purchase corporate bonds, making it feasible for many firms to issue large quantities of non-guaranteed bonds.

ITCs grew sharply from 1998 to mid-1999 and became major investors in the corporate bond market, accounting for almost 80 percent of the total funding of non-financial firms during that period.[34] ITC investment products revealed salient benefits, including comparatively low risk (as a result of the separate custody of assets by independent trustees) and high yields relative to other investment products, helping attract new clients at a fairly constant level. Consequently, total assets under management by ITCs and ITMCs reached 90 trillion won (US$ 94 billion) in 1997, and grew to a record high 244 trillion won (US$ 210 billion) in June 1999.[35] In addition, reflecting the temporary bond market boom during the same period, the turnover ratio rose rapidly from 140 percent in 1997 to 350 percent in 1999 (see Figure 6).

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[31] The value of outstanding corporate bonds to GDP rose from 20 percent in 1997 to 28 percent in 1998. Sayuri Shirai (2001).

[32] Article 470, the Commercial Code. This does not mean that a corporation could not be leveraged above 200% or 400%, however, since the limit only controls the bond issuance to net asset ratio, not the debt-to-equity ratio.

[33] In mid-February 1998, the 3-year benchmark corporate bond interest rate was approximately 24%. The rate dropped to around 5.5% in January 2003.

[34] Inseok Shin, and Hongkyu Park (2001)

[35] Korea Investment Trust Companies Association, www.kitca.or.kr. Some of this growth no doubt reflects the widening gap in investment returns between the trust and savings products offered by banks, which were struggling to meet capital adequacy ratio targets based on the capital standards of the Bank for International Settlements, and products offered by ITCs.

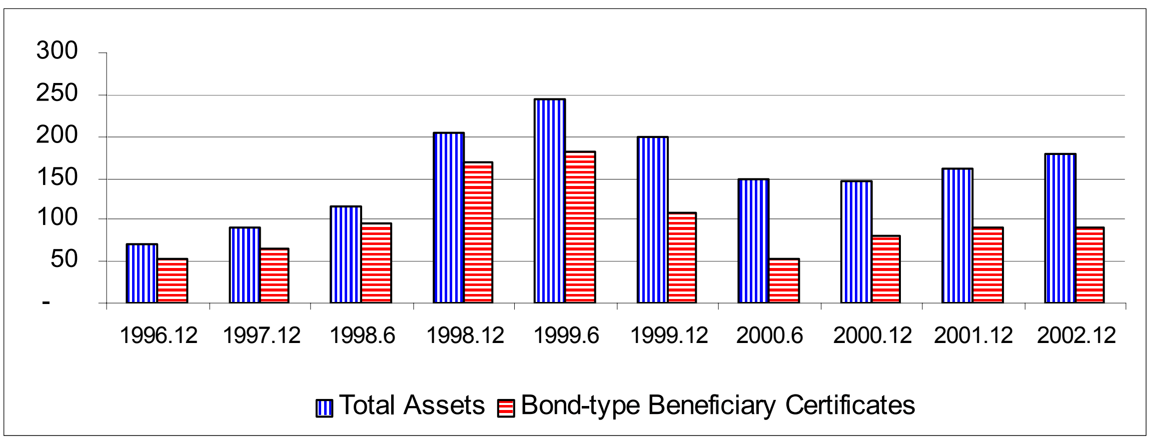
With banks and merchant banks undergoing restructuring, financially distressed companies struggled for capital and tried to secure funds at any rate. Therefore, in the presence of looming investor moral hazards, the post-crisis environment provided an ideal opportunity for ITCs to engage in reckless expansion. In fact, the temporary bond market boom reflects the public's perception of ITCs as crisis-proof and de-facto banks that could survive any financial storm.

Daewoo Bankruptcy and Its Effect

In mid-1999, however, the bankruptcy of the Daewoo business group eroded investor confidence in corporate bonds and ITCs, chilling the corporate bond market.[36] Following Daewoo's collapse in 1999, ITCs were under heavy pressure from investors to redeem their funds. As a result, ITCs' value of bond-type beneficiary certificates shrank from 181 trillion won (US$ 163 billion) in June 1999 to 53 trillion won (US$ 48 billion) in June 2000.[37] (see Figure 10).

Figure 10: The Growth of ITCs

(Unit: trillion won)



Source: Korea Investment Trust Companies Association, www.kitca.or.kr

Two systems caused the deterioration of the ITCs: guarantees on minimum returns and book value accounting system. Under the guarantees-on-minimum-return structure, ITCs (through their own accounts) had to take the loss when their funds' yields were below the promised fixed interest rate. Under the book value accounting system, ITCs took the loss in most cases when investors asked for redemptions before maturity. These circumstances exacerbated the ITCs' financial burdens. As a result, interfund transfers to spread gains or losses among the different funds of an ITC became a common practice in order to meet minimum returns and survive liquidity deficiencies in the ITC funds.

[36] Based on FSC and FTC data, by the end of 1998 Daewoo's liabilities stood at 59.9 trillion won, of which 46.2 trillion won was borrowed from financial institutions and debts issued in the capital market. The ITCs collectively held 77% of Daewoo's outstanding bonds and commercial paper --worth about 22 trillion won in face value.

[37] Korea Investment Trust Companies Association, www.kitca.or.kr.

The government took several steps to alleviate liquidity problems in the bond markets, preventing a massive outflow of funds from the ITCs. First, the government introduced the Bond Market Stabilization Fund to stabilize bond yields. Banks and insurance companies contributed to the fund, which was initially set at 2 trillion won (US$1.7 billion) and later increased to 3 trillion won (US$ 2.5 billion). The fund was utilized to purchase bonds generated by the early redemption from the sale of ITCs' depository certificates. The government also asked financial institution investors not to participate in early redemption by convincing them that this could jeopardize their own stability, and introduced an adjusted payout ratio for Daewoo papers to individual investors and non-financial institutions.[38] Moreover, the government supplied higher incentives to invest in ITC products and launched new products with tax breaks.

The government also promoted recovery of investors' confidence in ITCs through a strict execution of structural reform, including recapitalizing ITCs with public funds amounting to 7.7 trillion won (US$ 6.4 billion)[39] and permitting the write-off of ITCs' non-performing assets. In addition, the government strengthened the transparency of the ITCs' asset management by adopting mark-to-market accounting principles.

These efforts to address the liquidity crisis and control the level of bond market yields have been broadly successful. Unfortunately, however, the bailout programs produced moral hazards among some ITCs and their investors. Some ITCs may have adopted high-risk lending practices, relying on the government in any case of insolvency. ITC fund managers may also have made investment decisions without careful risk analysis.

3.2.2 Collapse of the Guarantee Insurance Companies

The departure of so many guarantors left Korea's two guarantee insurance companies -- Korea Guarantee Insurance Company and Hankook Fidelity and Surety Company -- in a monopolistic position in the market after the 1997 financial crisis.[40] Having suffered from the bankruptcies of Hanbo Steel and Kia Motors in 1997, the guarantee insurance companies now competed to guarantee corporate bonds issued by the big business groups (*chaebols*) in order to survive their own liquidity crisis, assuming the top five *chaebols*,

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[38] In the case of individuals and other non-financial institutions, when funds were withdrawn within 90 days, 50% of Daewoo credit was prepaid; for withdrawals between 90 and 180 days, 80% of Daewoo credit was prepaid; and for subsequent withdrawals, 95%.

[39] The two largest ITCs, Hankook and Daehan Investment Trust Company, which did not have controlling shareholders, were recapitalized by the government. This, however, may not be a permanent event. The government may have to inject more public funds. The third largest ITC, Hyundai Investment Trust Company, which was controlled by the Hyundai group, carried out its own recapitalization without the injection of public funds.

[40] Throughout the growth of the guarantee insurance companies, bond guarantee businesses accounted for less than 10 percent of the companies' revenue until 1996. Their main product lines were performance guarantees and installment sales guarantees, which accounted for 50 to 70 percent of their total guarantees before the financial crisis (Performance guarantee: 1975, 46.7%; 1980, 59.7%; 1985, 41.4%; 1990, 21.7%; and 1995, 23.7%. Installment sales guarantee: 1975, 16.4%; 1980, 7.5%; 1985, 28.7%; 1990, 38.3%; and 1995, 32.0%, Source: Seoul Guarantee Insurance Company). After the 1997 crisis however, the guarantee insurance companies drastically increased bond guarantees, reaching 79.5 percent of total guarantee insurance in February 1998.

which were larger in size than Hanbo Steel and Kia Motors, were too big to fail. As of August 1998, the amount of guaranteed bonds by guarantee insurance companies reached 69.9 trillion won (US$ 50.0 billion), 74.1 percent of which were five *chaebols*.[41]

The enormous amount of guarantees, which far exceeded the ability of two guarantee insurance companies,[42] was made possible by the combination of lax government supervision, poor corporate governance, and an ill-placed confidence in the notion that the five *chaebols* were too big to fail. In reality, there was no authentic bond guarantee insurance business -- one based on well-established risk management skills with effective databases and sufficient statistics. None of the guarantors seemed to realize the enormous risk involved in bond guarantees, and the fees they charged were considered more like service fees rather than insurance premiums based on past statistics. In other words, they appeared to consider the guarantees as an easy way to increase revenues without exposing themselves to any significant risk.

Had the bond market boom and the overconfidence in *chaebols* been sustained, the guarantee insurance companies may have successfully weathered the financial distresses. Instead, the outbreak of non-performing bonds sent both Korea Guarantee Insurance Company and Hankook Fidelity and Surety Company into insolvency, resulting in government prohibition of new issuance guarantees by these two companies in September 1998. Korea Guarantee Insurance Company and Hankook Fidelity and Surety Company merged in November 1998 and underwent restructuring. However, the bankruptcies continued to affect the newly merged company. In 2001, when the last of the merged company's guaranteed three-year bonds reached maturity, 10.25 trillion won (approximately US$ 8.5 billion)[43] had to be injected into the company by the government to enable it to honor its guarantees.

3.2.3 Credit Crunch: 2000 & Beyond

Various merchant bank closures, ITC restructuring efforts, and the growing number of nonviable businesses—including persistent problems of the *chaebol* Hyundai—negatively affected bond market performance. Since the latter half of 1999, ITCs have been searching for safer investment products—in particular, bank savings accounts.

Meanwhile, the government increased intervention in the capital market after Daewoo's bankruptcy in an attempt to stabilize precarious financial market conditions. However, falling interest rates did not improve the funding situation for small- and mid-size companies as it did for big businesses, and they struggled to pull through the financial crisis. The credit crunch and the difficulties that small- and medium-size corporations underwent due to customers' "flight to quality" are shown in Figure 11. Bonds issued with BBB investment grades and under decreased significantly to 23 percent from 58

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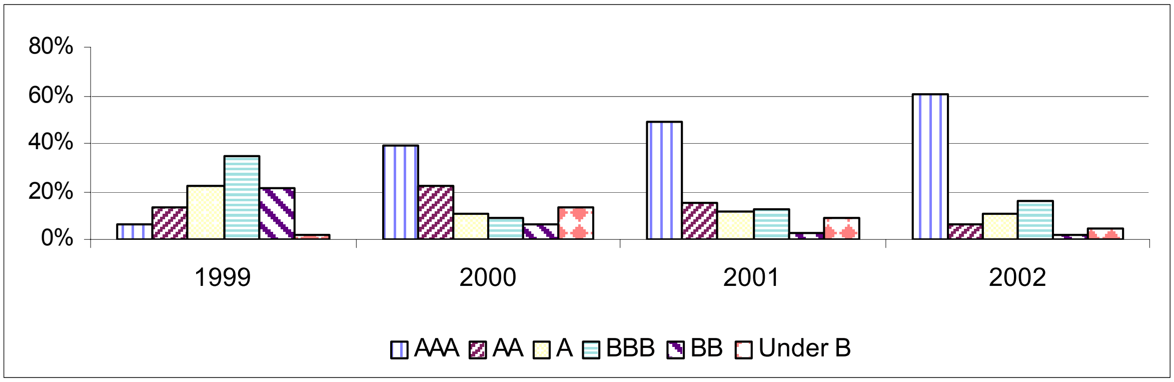
[41] Hyundai (12.5 trillion won), Samsung (13.1 trillion won), LG (11.1 trillion won), Daewoo (11.6 trillion won), and SK (3.4 trillion won). Source: Seoul Guarantee Insurance Company.

[42] Equity capital as of 1997: Korea Guarantee Insurance Company: 5 billion won (US$ 5.2 million), Hankook Fidelity and Surety Company: 103 billion won (US$ 107.8 million).

[43] Seoul Guarantee Insurance Company, www.sgic.co.kr.

percent in 1999. Bonds with AAA ratings accounted for 60 percent of issued bonds in 2002.

Figure 11: Non-Guaranteed Bonds by Credit Ratings Since 1999



Source: Korea Securities Exchange

The corporate credit crunch was further aggravated by a radical contraction in bank loans. Loans to corporations—particularly those with low credit ratings—reduced banks' BIS capital adequacy ratio. As a result, domestic banks limited corporate loans to a handful of top performing *chaebols* with high credit ratings. Furthermore, there were no private institutions opting to guarantee bonds. Under these circumstances, the central bank's efforts to ease the credit crunch by loosening monetary policies and improving liquidity in the banking system did not transfer to the corporate sector.

3.3 Conclusion

Bonds have played an important role in Korea's economic progress. From the issuers' perspective, the bond market has facilitated long-term financing needs of the public sector to fund infrastructure projects such as highways, ports and utilities, as well as to finance the government's budget deficit. The bond market has also played a critical financing role in the private sector, mostly as an attractive alternative to bank loans and other costly capital to fund business expansions.

From the investors' perspective, bonds have been prominent assets on the balance sheets of banks and ITCs, enabling them to provide individual investors with a range of investment options. Furthermore, the development of the corporate bond market laid the groundwork for the rise of collective investment schemes such as mutual funds and trust accounts offered by banks.

Yet, in retrospect, some government initiatives to promote the bond market were over regulated. More importantly, in an attempt to quickly catch up to the more developed markets around the globe, there was inadequate supervision of the corporate bond market. The bond guarantee system revealed its own shortcomings, and investors misplaced reliance on guarantees rather than credit ratings, transparency, and the legal framework to protect their interests. In short, a working infrastructure was absent, spawning a vicious cycle of market dysfunction.

4. DRAWBACKS OF THE CORPORATE BOND MARKET PRIOR TO 1997, AND SUBSEQUENT MARKET REFORMS

4.1 Characteristics of the Corporate Bond Market Prior to 1997

Before the 1997 financial crisis, the corporate bond market in Korea was characterized by heavy government intervention, including interest rate controls and a quota system. Guaranteed bonds dominated the market, and there was a lack of market monitoring by investors and other stakeholders. Short-term bonds prevailed and the government bond market was underdeveloped.

4.1.1 Heavy Government Intervention

Interest Rate Control

Until the late 1980s, the government’s strict credit rationing and interest-rate regulation channeled scarce capital to selected industry sectors deemed important to the economic development plan. While this policy led to impressive overall economic growth, the government's intervention also obviated the inherent function of interest rates as the market price setter. With a guaranteed spread between lending and deposit rates, domestic banks had no incentive to introduce financial innovations or manage their balance sheets. Government ownership of financial institutions also undercut profit-maximizing initiatives; many investments, especially those sponsored by the government, failed to generate profits necessary to repay the banks.

Once the economy passed the initial stages of growth, the government realized the negative consequences of interest rate controls and decided to deregulate interest rates, announcing a four-stage interest rates deregulation plan in August 1991(see Table 2):

Table 2: Interest Rate Deregulation Scheme

Stage	Deregulation Phase
Phase 1 (as of Nov. 1991)	• Interest rates on bank overdraft loans, certificates of deposit, and long-term installment deposits [1] • Corporate bonds with maturity of at least two years
Phase 2 (as of Nov. 1993)	• All lending and deposit rates, except for government-financed loans and deposits with maturities of less than two years • Corporate bonds with maturity of less than two years and government and public bonds
Phase 3 (as of Nov. 1994)	• Interest rates of banks and non-bank intermediaries on deposits with maturities of more than one year • Interest rates on loans discounted by the central bank
Phase 4	• All interest rates, except those on demand deposits

(as of Dec.1996)	

Source: the Ministry of Finance and Economy
Note: [1] A long-term installment deposit is a bank deposit into which the holder puts a designated amount each month over a certain period and receives the principal and interest at maturity

Quota System
Even after interest rates on corporate bonds with longer maturities were deregulated in November 1991, the government sought to influence interest rates in the corporate bond market through quantity control. Specifically, in March 1992, trying to reverse the trend of rising interest rates, the government began requiring every bond issuer to submit its issuing plan one month prior to the due date to the Corporate Bond Control Council, which was ostensibly a civic group under the Securities Association. The Council then made two key decisions in accordance with the Corporate Bond Quantity Control Standards: the total quantity of corporate bonds to be issued for each month; and monthly limits of bond issuances by investment grade. In reality, the council was a government instrument whose purpose was to dictate the total quantity of bonds issued.

The main problem with the quantity control mechanism was market intervention. It left companies vulnerable to policymakers' whim, unable to grasp how many bonds they could issue or even whether they could issue bonds at all. Between 1987 and 1991, the share of corporate bonds in total corporate financing increased from 6.4 percent to 24.2 percent. After the quantity control mechanism was introduced in 1992, the share of corporate bonds in financing dropped to 12.5 percent and stayed low in the 15 percent range until 1996.[44]

Table 3 demonstrates the disparity between the actual quantity of corporate bonds issued and the quantity in application, and shows that there was a consistent excess request throughout the quantity-controlled period. Ultimately, the government regulator denied a total value of 25.3 trillion won (approximately US$ 31.6 billion) of corporate bonds (based on public issues) from 1992 and until the quota system was abolished in late 1997.

Table 3: Corporate Bond Demand and Actual Issuance

(Unit: trillion won)

	1992	1993	1994	1995	1996	1997.1~9	Total
Application	20.4	19.5	19.9	26.2	32.5	27.2	145.6
Actuals	14.5	14.0	17.9	20.4	28.3	25.2	120.3

Source: Korea Securities Dealers Association

There were other impediments to bond issuances as well. Complex processes and regulatory red tape contributed to high issuing costs and a lengthy issuing process (anywhere from 20 to 40 days, trickling from boardroom examinations to the corporate bond registry). Such high inefficiencies in the system increased the costs of financing through corporate bonds, and in many instances, discouraged companies from resorting to bonds as a financing channel.

[44] Doo-Yull Choi (2002).

Unlike corporate bonds, corporate paper experienced no such barriers. Consequently, many companies that did not get approved for bond issuance by the Corporate Bond Control Council relied on corporate paper. This explains the higher three-month CP yields over the corporate bonds earnings for the same maturity between 1994 and 1997.

In sum, government intervention in the market produced a number of negative side effects, including high costs of bond issuance and uncertainty for companies in issuance approval. Discouraged companies issued commercial paper as short-term financing, which in turn increased the market interest rate and the corporate financing cost, ultimately amplifying the incidence of high-interest, short-term liabilities in the market.

4.1.2 Absence of Market Monitoring

Prior to the 1997 financial crisis, businesses' financial statements did not comply with internationally recognized accounting standards. External auditing was perfunctory and disclosure of financial information lacked precision. Domestic credit rating agencies suffered from lack of public confidence for reasons associated with unsophisticated rating skills, limited information sources, and the inadequate accounting practices of businesses. Only in the wake of the 1997 financial crisis did stakeholders and the financial community recognize the importance of reliability and transparency of accounting information generated by issuers, financial institutions, and external auditors.

4.1.3 Dominance of Guaranteed Bonds

Given the lack of reliable information, financial institutions' bond guarantees provided the confidence sought by investors in the corporate bond market. Investors were more interested in securing their investments through guarantees rather than relying on the corporations' credit ratings. As a result, in the corporate bond market, bond prices did not reflect the credit qualities of the issuers as long as the bonds were guaranteed. In addition, the difference in guarantee fees was minimal among financial institutions in the same sector, while there were greater but still insignificant variances among different financial sectors (i.e. between banks, securities firms, and insurance companies) in accordance to their credit worthiness. Thus, and as noted in section 3.1.3 and Figure 7, above, guaranteed bonds were dominant in Korea until 1997.

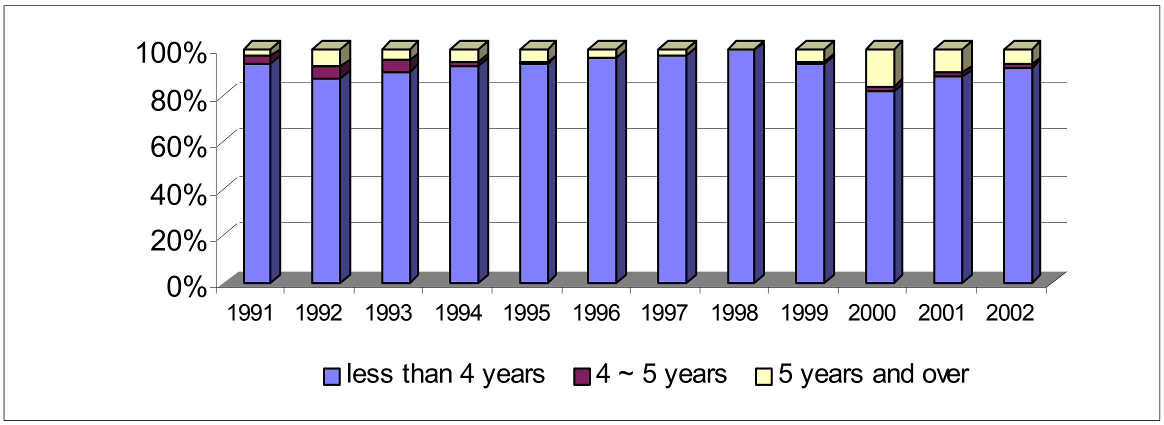
4.1.4 Dominance of Short-Term Bonds

Historically, three-year corporate bonds have dominated the Korean corporate bond market. Throughout the 1990s, more than 90 percent of issued corporate bonds had three-year maturities (see Figure 12), and the share of bonds with short- to mid-term maturities reached 99.4 percent of the total corporate bond market immediately after 1997.[45]

[45] However, the trend is slowly reversing with the recent increase of long-term maturity bonds, which takes up 20 percent of the corporate bond market. The key contributing factor to this movement was the growth of asset-backed securities, of which the credit is greatly enhanced by collateralized assets. This, in turn, encourages investors to buy-and-hold even longer-term maturity bonds. As a result, the share of bonds

Unsteady market conditions, such as high and capricious inflation rates, as well as low confidence, resulted in a strong preference for short-term bonds. Investors also had high-risk but high-return alternative markets such as real estate and equities, which worked as disincentives to committing their funds to long-term bonds. Further, investors were wary of long-term bonds in the wake of the financial crisis, and issuers welcomed short-term, three-year bonds because of lower prices and the uncertainty in interest rates inherent in long-term bonds.

Figure 12: Maturity Structure of Corporate Bonds



Source: Financial Supervisory Service

Financial intermediaries such as ITCs and bank trust accounts also contributed to prevalence of short-term bonds. Bank trust accounts, as the chief investors in corporate bonds, encouraged the use short maturities by concentrating their investments in short-term bonds. Risk preference profiles of trust account customers are similar to those of depositors, who tend to prefer short-term maturities. Moreover, ITCs maintained a "buy-and-hold" strategy to avoid losses from bond price fluctuations occurring under the book value accounting system. Thus, ITCs also preferred short- to medium-term bonds in order to reduce risk exposure.

4.1.5 Underdeveloped Government Bond Market

While the corporate bond market grew rapidly, government bonds represented only a small share of the overall Korean bond market until 1997. This was because the government was primarily concerned with maintaining a balanced budget.[46]

Until 1994, government bonds were issued at below market, fixed, interest rates.[47] Some bonds were issued and allocated to financial institutions for sale, while others were

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maturing in five years and longer reached almost 20 percent of total corporate bonds in 2000 and remained above 10 percent afterwards.

[46] For example, between 1981 and 1993, the ratio of the fiscal deficit to GDP averaged only 1.2 percent. Reluctant to increase the fiscal deficit, the government financed its bond issues largely with low-interest-bearing BOK loans and loans from other local and overseas financial institutions.

simply assigned to agents (for example, by obligating them to purchase bonds when they bought real estate). In general, government bond issuing patterns were unpredictable. Given these factors, government bonds were not liquid investments. Even after 1994, when a number of new bond market reforms took place, newly-issued government bonds failed to reflect market conditions because the government continued to set its price arbitrarily while assigning surplus bonds to syndicates, usually groups of banks. Accordingly, government bonds did not serve as a benchmark for the rest of the bond market, and three-year corporate bonds effectively took their place.

4.2 Restructuring of Corporate Bond Markets

4.2.1 Reforms in Corporate Governance and Government Supervision

The corporate bond market faced unavoidable structural modifications post-1997. New rules and regulations were introduced in the corporate sector in order to instill transparency and management accountability. Consolidated financial statements were required.[48] Independent boards, audit committees, and tougher auditing and disclosure systems were introduced while minority shareholder rights strengthened.[49] (see Box 1)

With the corporate bond market's internal progress, Korea also witnessed a rise in the share of non-guarantee bonds. This, in turn, provided increased prospects to reinforce different market infrastructure elements, such as credit enhancement and information disclosure systems. The positive changes also entailed a boost in investor actions, as they began to engage themselves in scrutinizing issuers' credit ratings and operations. At the same time, institutional investors met new trials, for they were now confronted with rising competitors. While government control was no longer a problem, institutional investors now needed to pursue profit-maximizing tactics in order to survive in the new environment.

Determined to revamp the bond market's fundamental infrastructure, and acknowledging the harmful outcomes of direct government intervention, the Korean government redefined its role as a prudent regulator and supervisor, and also combined several independent administrative groups in order to engage in more efficient supervision. To ensure soundness of the financial sector, banking supervisory mechanisms were improved and the Forward-Looking Criteria (FLC) system was launched to set tougher standards in loan classification and provisioning. To enhance transparency of fixed-income instruments and stimulate the secondary market, the government introduced mark-to-market accounting for bond portfolios held by institutional investors as of July 2000. As a result, fund managers are prohibited from transferring bonds into other funds

[47] The main purpose to issue government bonds was to finance the construction of highways and other economic infrastructure. In particular, it issued agency bonds, including industrial development bonds, housing bonds, and electric utility bonds.
[48] For companies with asset larger than 2 trillion won (approximately US$1.7 billion)
[49] Audit committee is mandatory for companies with asset larger than 2 trillion won. Two thirds of the committee should be outside directors.

to allocate losses or gains among funds. In addition, private bond pricing agents entered the scene in 2000 to supplement the mark-to-market accounting system.

Box 1: Corporate Governance Reform in Korea

Since the 1997 financial crisis, Korea has worked to restructure its financial and corporate sector. In accordance with various suggestions from the International Monetary Fund (IMF) and World Bank, Korea has adopted international standards related to corporate governance; Korean corporations are now close to meeting these standards. The proportion of outside directors has reached 60-80 percent in the banking sector. Various committees are under the board of directors, and the decision-making system has also been reformed. Regulations concerning the authorities, roles and obligations of the board have been developed. Reforms to improve the corporate governance framework and enhance transparency include:

- Enhancing disclosure & transparency
  - International accounting standards were adopted in December 1998.
  - Accounting firms are liable for damages imposed on third parties, including shareholders, as a result of improper audits.
  - Electronic disclosure system was introduced.
  - Government can impose fines up to 500 million won (US$ 0.4 million) on accounting firms for improper audits.
  - An auditor should not participate in the auditing of the same KSE or KOSDAQ registered company for four consecutive business years, more stringent than the former six years.
  - Consolidated financial statements are required, to disclose real financial conditions among a firm and its affiliates within the same business group.

- Improving management and board of director accountability
  - Outside directors must account for at least a quarter of the total number of corporate board members for firms on the KSE and KOSDAQ.
  - Legal liabilities of major shareholders involved in any form of management were increased to enhance their accountability.
  - Related party transactions by large listed firms must be approved by directors and reported at the shareholder meeting.

- Strengthening shareholders' rights
  - Institutional investors were permitted to exercise their voting rights according to 1998 revisions of the Securities and Exchange Act.
  - Scope of issues requiring shareholder approval has been expanded to include disposal and transfer of essential assets and large-scale borrowing.
  - Minimum share ownership requirements to exercise shareholder right to file derivative suits have been reduced from 1 percent to 0.01 percent.
  - The threshold for proposing the adoption of cumulative voting has been lowered from 3 percent of shareholders to 1 percent.

4.2.2 Improved Credit Enhancements

Emergence of Asset Backed Securities

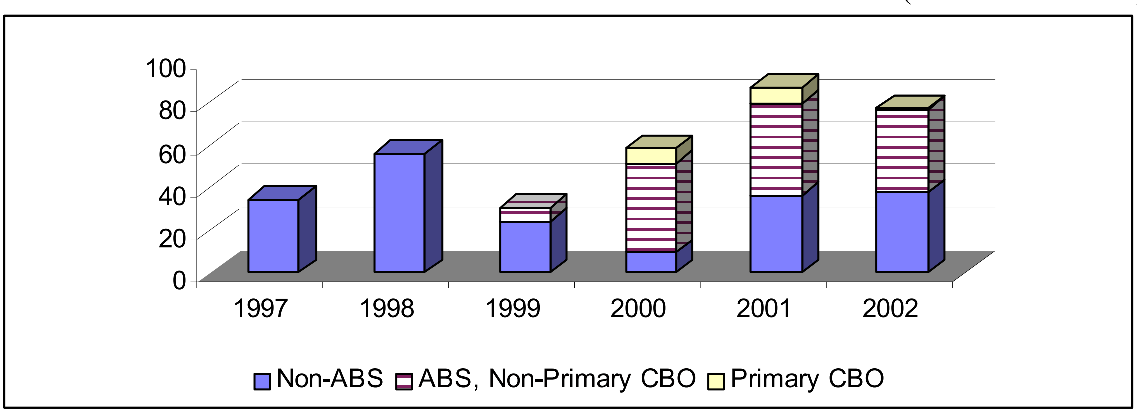
In 1998, the government enacted the Asset Securitization Act, which was designed to facilitate corporate finance restructuring after the financial crisis. This Act cleared a number of legal and regulatory barriers that had delayed the development of asset-backed securities, while also simplifying certain procedures in transaction executions. In 1999, the Mortgage Securitization Act was enacted on the basis that mortgage-backed securities are more long-term and homogeneous than any other asset securitization. With the introduction of these two acts, the government provided tax incentives, such as the exemption of acquisition tax, registration tax, and withholding tax, in order to promote the ABS and MBS.

During the last four years, the asset-backed securitization market has emerged as a boon for many businesses struggling to borrow funds that had been previously available through loans or straight bond markets. In the wake of the financial crisis, investors were reluctant to bear direct exposure investments. Yet, they have become comfortable with securitizations because these deals carry extra credit enhancements and typically expose investors to only one asset type. Consequently, the securitization market has seen a wide range of assets being secured, from credit card receivables and non-performing loans to real estate and future flow transactions.

As a result, the issuance of these instruments increased remarkably. In 1999, the total value of issued ABS equaled 6.8 trillion won (US$ 5.7 billion) or 22.1 percent of the total corporate bond market. In 2000, this increased to 49.4 trillion won (US$ 41.2 billion) or 84.2 percent of the total corporate bond market, but then decreased to 39.8 trillion won (US$ 31.8 billion) or 51.4 percent in 2002 (see Figure 13 & Table 4).

Figure 13: Emergence of ABS in the Bond Markets

(Unit: trillion won)



Source: Financial Supervisory Service

Table 4: Composition of ABS Issuers

(Unit: billion won)

	1999		2000		2001		2002	
	Amount	%	Amount	%	Amount	%	Amount	%
KAMCO	1,829.6	27.0%	4,844.5	9.8%	1,380.9	2.7%	59.9	0.2%
KDIC	-	0.0%	515.8	1.0%	975.5	1.9%	163.6	0.4%
Other public org.	1,559.5	23.0%	1,352.5	2.7%	591.3	1.2%	-	0.0%
Banks	712.2	10.5%	6,091.1	12.3%	12,046.1	23.7%	1,798.4	4.5%
ITCs	-	0.0%	18,292.3	37.0%	58.9	0.1%	-	0.0%
Securities firms	210.0	3.1%	8,409.5	17.0%	8,303.2	16.3%	2,034.1	5.1%
Credit card firms[1)]	1,655.3	24.4%	6,079.6	12.3%	21,484.3	42.2%	28,067.8	70.5%
Other financial firms	576.5	8.5%	2,870.1	5.8%	1,960.5	3.8%	1,366.8	3.4%
Corporations	227.8	3.4%	927.8	1.9%	4,133.5	8.1%	6,336.8	15.9%
Total	6,770.9	100.0%	49,383.2	100.0%	50,934.2	100.0%	39,827.4	100.0%

Source: Financial Supervisory Service

Note: [1)] Includes venture capital finance business, leasing companies, and installment financing business

Collateralized Bond and Loan Obligations

The government devised the primary collateralized bond obligation (primary CBO)[50] and collateralized loan obligation (CLO) in order to help small and medium enterprises issue new bonds since these businesses were hit hard by the credit crunch following the Daewoo crisis.[51] Primary CBOs were based on securitization of newly-issued bonds by small and medium enterprises with credit ratings ranging from A to BB. When securitization of such bonds alone was not enough to attract investors, however, the government combined primary CBOs with partial guarantees from the KCGF and later from the KTCGF, as well.[52] In essence, primary CBOs, which securitize assets and offer credit enhancement as needed, are a type of ABS. Moreover, CBOs are treated as

[50] Primary CBOs are different from secondary CBOs in that they are based on bonds that have not yet been made available on the secondary market.

[51] Before devising the primary CBO and CLO, the government had implemented a series of countermeasures to deal with the corporate credit crunch during 1999 and early 2000. After worried investors withdrew significant funds from ITCs, ITCs were allowed to set up both a high-yield fund and a subordinated-bonds fund in order to induce reinvestment. This procedure was also intended to help clean out the ITCs' funds contaminated by Daewoo's bankruptcy. Among the benefits that these newly-introduced funds conferred to investors were tax breaks. The government also abolished financial institutions' holding limit on bonds issued by chaebols and their affiliates (because the large chaebols would dominate funding opportunities by issuing bonds, the government tried to rectify this problem by introducing the holding limit in October 1998). Even during the 2000 credit crunch, the credit ratings of most large enterprises were high enough that they could still issue bonds. The main problem in 2000 was "flight to quality," and this hindered small and medium enterprises from being able to issue bonds.

[52] Public sector guarantors played a major role in the CBO scheme largely because private sector bond guarantors were still reluctant to guarantee bonds. The CBOs guaranteed by KCGF turned out to be successful because the default ratio of base assets was relatively low. Some of the CBOs guaranteed by the KTCGF, however, seem to be a potential risk factor in the bond market because of the expected high default ratio in the base assets of the CBOs.

corporate bonds on the grounds that they are issued through Special Purpose Corporations (SPCs).

The government introduced a CLO scheme in December 2000, through which bank loans could be pooled and securitized. CLOs differ from CBOs in that the underlying assets of CLOs are bank loans rather than corporate bonds.

In July 2000, newly established Bond Market Stabilization Funds amounting to 10 trillion won (US$ 8.3 billion) also contributed to the successful launch of the primary CBOs and CLOs. As a result, primary CBOs accounted for 14.8 percent of total corporate bond issuances in 2000.[53]

KDB Pooled Bonds

Despite the success of primary CBOs and CLOs, corporate bonds worth 65 trillion won (US$ 50 billion), which were due to mature in 2001, needed assistance to ensure continued stability of the financial market.[54] Most of these bonds were three-year bonds which were rolled over in 1998 immediately following the financial crisis, and primary CBOs and CLOs were limited to dealing with the high volume of bonds facing imminent maturity (*i.e.*, maturity prior to 2001).

Therefore, the government devised an emergency tactic for the swift underwriting of corporate bonds, through the Korea Development Bank (KDB). Specifically, the KDB was responsible for buying one-year corporate bonds issued by troubled companies which otherwise would not have been able to roll over their debt during 2001. The issuer companies, selected by the KDB, produced one-year bonds with face values amounting to 80 percent of the owed debt (the remaining 20 percent of the debt was to be managed independently by the original issuers). The KDB later pooled the bonds and secured the cash flows with credit support provided by a guarantee from the KCGF. The security measures involved two tranches, the first of which, the senior tranche, was sold to investors and valued at 70 percent of the pool. Creditor banks of the original issuers and the KDB assumed the junior tranche, or the remaining 30 percent of the pool. The creditor banks assumed 20 percent and the KDB took on 10 percent.[55] The measure was combined with an additional 10 trillion won (US$ 8.3 billion) in Bond Market Stabilization Funds established by banks and insurance companies at the end of 2000.

As a result, due to the 15.6 trillion won (US$ 12.1 billion) in primary CBO and 2.98 trillion won (US$ 2.3 billion) in bonds underwritten by the KDB, the financing conditions of the corporate bond market improved substantially.[56]

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[53] Financial Supervisory Service, www.fss.go.kr "Analysis on the issuance of ABS in 2002" (Feb, 2003).
[54] Ministry of Finance and Economy, "Specific Guidelines for the Quick Underwriting Measure" (Jan. 2001).
[55] Gyutaeg Oh and Changyong Rhee (2001).
[56] Financial Supervisory Service, www.fss.or.kr; the Korea Development Bank, www.kdb.co.kr. At the same time, however, the government's rescue measures gave rise to another set of problems, namely investors' moral hazard concerning the government's role as the savior of troubled institutions. The government's intervention also served to further delay the corporate sector's restructuring process.

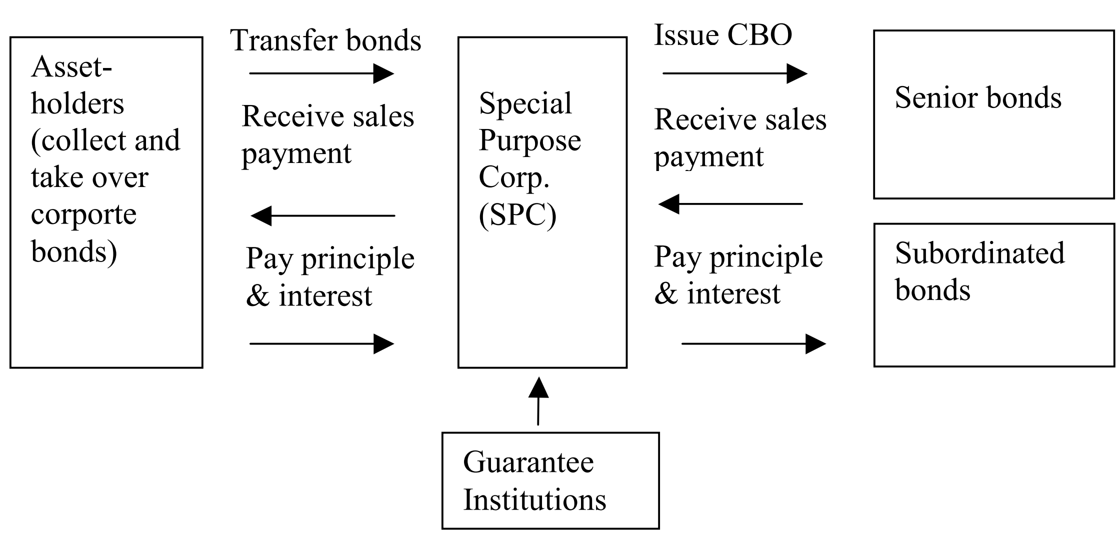
Box 2: Basic Structure of a Standard CBO

By definition, CBOs are investment-grade bonds backed by a pool of investment-grade and junk bonds. Because base assets bring together several types of credit quality bonds, they offer enough diversification to be considered investment grade. Primary CBOs are based on newly issued bonds, while secondary CBOs are derived from existing bonds.

The first step in issuing primary CBOs involves collecting newly-issued bonds to transfer to special purpose corporations (SPC), which sever default risks of the CBOs' base assets. SPCs purchase bonds and issue various securities tranches that parcel out the risks and rewards of the bond portfolio to several classes of investors. Since CBOs are granted partial guarantees by financial guarantee agencies, they offer higher protection against future credit losses. The guarantee ratio is determined by the credit rating of base assets. In turn, the companies benefit by gaining access to those investors who are willing to buy debts only when they are pooled and partially guaranteed.

The graph below illustrates two credit enhancement methods. First, guarantee institutions partially warrant corporate bonds to promote take-over and investment. The guarantee ratio is flexible, depending on the bonds' credit ratings. The other way is to guarantee bonds by risk pooling, which means gathering individual corporate bonds to compose basic assets for issuing asset-backed securities.

Basic Structure of a Standard CBO with Partial Guarantees



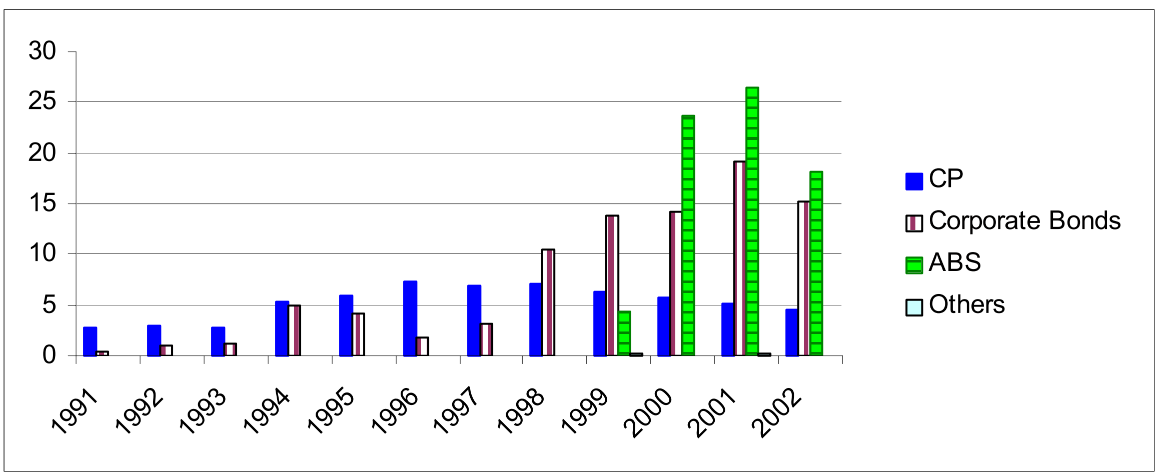
4.2.3 *Improved Credit Ratings*

In the past, the government drove the demand for ratings and led the development of the credit rating industry, in part by enforcing regulations requiring companies to receive these ratings. One adverse effect of this system was that borderline bond issuers, shy of satisfactory investment grades, sought ratings from agencies with more lax credit standards, which consequently eroded the credibility of those agencies. In addition, the utilization and development of rating agencies were restricted due to the prevailing practice of corporate bond guarantees, which were seen to obviate the need for credit ratings. When there were guarantees, credit ratings should have been assessed on the guarantors' creditworthiness. In reality, however, market participants believed the financial institutions carried no default risks and accordingly ignored the role of credit ratings.

Thus, the post-1997 shift towards non-guaranteed corporate bonds is placing a growing importance on credit rating agencies. Newly created financial products such as ABS, hybrid securities, and equity-linked notes have also increased the demand for credit ratings (see Figure 14). Furthermore, with the introduction of the mark-to-market system, credit ratings were stressed as a vital element for pricing. As a result, the yield on corporate bonds correctly represents the real differences in default risks among issuers.

Figure 14: Revenue Composition of Korea's Credit Rating Industry

(Unit: billion won)



Source: Korea Management Consulting and Credit Rating Corporation

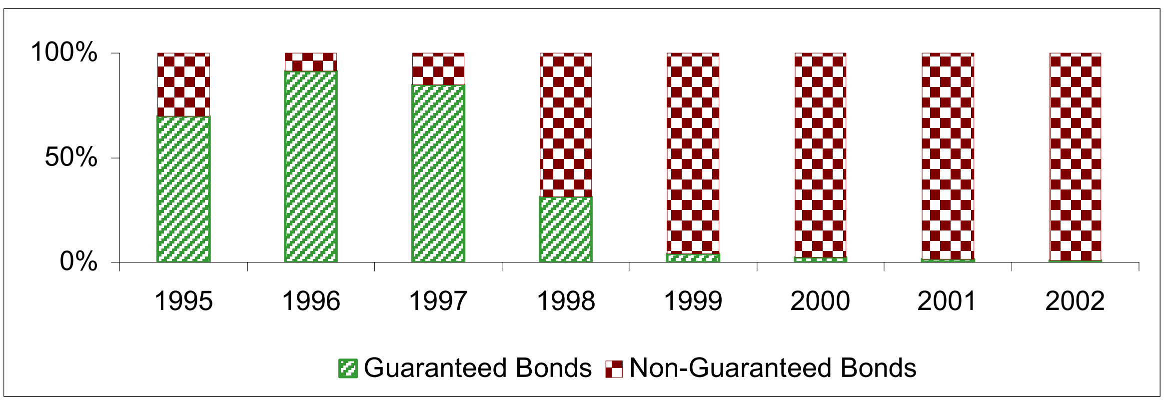
Currently, four domestic private credit rating agencies operate in Korea: the Korea Management Consulting and Credit Rating Corporation (KMCRC); Korea Investors Service (KIS); National Information and Credit Evaluation Corporation (NICE); and the recently approved Seoul Credit Rating & Information Inc. (SCI). Government regulations now require all publicly-issued non-guaranteed bonds to obtain at least two credit ratings by any of these national agencies.

As ratings gain more importance, the government is undertaking various measures to improve the system's functions and credibility. It approved SCI's entrance into the credit rating market in 2000 in hopes of enhancing competition. In addition, ITCs began to evaluate and collect performance ratings of each credit rating agency biannually, which are then distributed to financial institutions. Under heavy pressures to boost reliability, domestic rating agencies are establishing joint ventures with prominent international agencies such as Moody's and Fitch IBCA.

4.2.4 The Rise of Non-Guarantee Bonds

One of the major changes post-1997 has been the dwindling of guaranteed bonds. This is partially a result of rules prohibiting financial institutions from guaranteeing bonds. More importantly, economic crisis caused financial institutions to recognize the pre-eminence of making profit over increasing revenue. As shown in Figure 15, guaranteed bonds in Korea almost disappeared in 2002.

Figure 15: Share of Guaranteed and Non-Guaranteed Bonds Since 1995



Source: Financial Supervisory Service

4.2.5 Revitalization of Government Bond Markets

Experiences of the industrialized countries suggest that a healthy government bond market creates a favorable environment for a robust corporate bond market. A healthy government bond market provides the corporate sector with a reasonable basis for valuation and bond pricing. Since 1998, bond issuance, particularly public bonds, has increased sharply to fund the restructuring of the financial, public and corporate sectors. By year-end 2002, the total outstanding amount of KSE-listed bonds reached 614 trillion won (US$ 511 billion), of which government and public bonds accounted for 73 percent and corporate bonds 27 percent.[57] As a result, government bonds have provided benchmark yields for corporate bonds.

Several structural reforms undertaken after the 1997 financial crisis have encouraged the development of the government bond market. First of all, a fungible issue system was

[57] Korea Securities Computer Corp.

introduced in 1999 to increase the outstanding volume of benchmark bonds. This was achieved by matching the terms and coupons of the new issues with existing ones. The government also simplified the types of government bonds. The Grain Security Bond merged with the National Debt Management Fund Bond in 2000, and the National Debt Management Fund Bonds were renamed Treasury Bonds.

The government also introduced a primary dealer (PD) system for government bonds in August, 1999. Each PD is given exclusive rights to purchase a portion of new issuance sovereign bonds for resale. This was designed to augment competition within the domestic bond market and resolve the liquidity problem of the secondary market. The PD system facilitated the issuance of government bonds on a regular basis. It also helped establish government bonds as the benchmark for domestic interest rates. Twenty-four financial institutions (11 securities houses, 12 commercial banks, and one merchant bank) were originally designated as PDs. Since then, the government has evaluated PD performances in the primary and secondary markets annually, and the number of PDs totalled 20 in 2003.

Inter-dealer brokers (IDBs) entered the scene to help foster sound growth in the secondary market. In 2001, the total value of trades made by IDBs reached 28 trillion won (US$ 22 billion), or 1 percent of the OTC market. This dealer system also functions to raise liquidity and broaden the investor base in the secondary market.

To create demand for long-term bonds, the government began issuing ten-year Treasury Bonds in October 2000. So far, these Treasury Bonds have not played a benchmark role, because the volumes are too small and there is a lack of continuity in issuing long-term bonds. However, it is expected that Treasury Bonds with longer maturities will gain importance in the near future.

Repo market and securities lending was stimulated by tax law revisions in order to facilitate dealer financing. Prior to modifications, the seller and buyer had to pay a withholding tax on accrued interest earned during the holding period of the bond, which distorted the Repo rate compared to other money market rates. Under the new tax law, Repo participants do not have to pay a withholding tax at each leg of the Repo contract.

5. CORPORATE BOND MARKETS IN KOREA: THE FUTURE

As a result of the financial crisis, Korea's corporate bond market is undergoing unprecedented restructuring. This formidable task involves addressing numerous external and internal challenges, such as downturn of the economy; frequent gaps between the demand and supply of bonds; and large near-term refinancing requirements by credit card companies. As the government and market participants work cooperatively to address these challenges, big-picture and micro-level issues must be thoroughly deliberated. Improving the financial climate is crucial, because it serves as a foundation for a vigorous corporate bond market.

5.1 Continued Restructuring Efforts

Bond market investors still have difficulty distinguishing good firms from financially non-viable firms. This problem is rooted in the slow restructuring of the corporate sector. After experiencing bond payment defaults by non-viable firms, investors were hesitant to invest in bonds—even when they were issued by financially viable firms—unless the payment was guaranteed or the bonds were issued by a limited number companies with very high credit ratings. As a result, even highly regarded firms have had a difficult time rolling over their bonds when necessary, which is one of the most serious challenges of the corporate bond market.

To remove uncertainties eroding investor confidence, non-viable corporations should be subject to being forced out of the market. Non-viable corporations should be forced to disclose information that would demonstrate their lack of viability and thus foreclose access to the bond market The Korean government demonstrated impressive agility in implementing legal and institutional measures necessary to overcome troubles during the financial crisis, and it must continue to exert restructuring efforts in all sectors of the economy to prevent any recurring financial instability during the transition period.

Successful financial sector reform also requires an effective overhaul of the banking sector. Unfortunately, government ownership in this sector has *increased* since the financial crisis. Given the leading position of bank trust accounts as institutional buyers in the corporate bond market, privatization as well as the enhancement of regulatory frameworks must be implemented. Furthermore, continuous government supervision is required to ensure proper operation of new regulations and procedures for the NBFIs.

5.2 Enhancement of Bondholders' Role

While the government's role in creating a necessary infrastructure is crucial, monitoring of the bond market by bondholders is also critical.

Bondholders have two essential roles. First, they should assess and closely watch the competence of the bond issuer's management, to prevent insolvency through more sophisticated covenants. One way to do this is through an indenture trustee system, which requires a corporation to appoint a trustee to act for the benefit of the bondholders. Through the indenture trustee, bondholders can monitor the performance of the issuers systematically and can better protect their interests.

Second, bondholders should be involved in managing post-bankruptcy situations. This is not only important to recover maximum value from defaulted bonds, but also to ensure fast recovery and stability of the bond market through efficient settlements. Typically, the recovery ratio of defaulted bonds is below 30 percent of the face value. Such low recovery rates are due to the complicated and protracted process of bankruptcy filing. Therefore, through active bondholders' interests and protective measures such as bondholder committees and similar ventures, bondholders can serve their own interests and that of the overall Korean bond market.

5.3 Globalization of Korea's Corporate Bond Market

Globalization is inevitable to the further development of the Korean corporate bond market. There are four key benefits to globalization: participation by foreign investors and issuers will bring risk diversification; issuances by non-resident corporations will expand the size of the market, providing more choices for domestic investors; foreign investor participation means a larger investor group, which increases liquidity; and active foreign investment sends the message of market confidence.

Despite these benefits, the Korean bond market has been unable to fully embark on globalization. In the primary corporate bond market, high interest rates, exchange rate risk and a small investor base have been barriers to bond issuances by non-resident corporations (this trend should be reversed when the restructuring of corporate sector is complete and the necessary bond market infrastructure is put in place). In the secondary market, foreigner participation remains marginal even though all bonds have been available to outside investors since December 1997.[58] Although there was a temporary increase in foreign investments during the 1998 bond market boom, the share decreased when the market went down. In 2002, foreign investment in all listed bonds recorded a net purchase of 456.4 billion won (US$ 365 million), of which special bonds accounted for 37.9 percent, or 173 billion won (US$ 138 million). Total foreigner bond holdings stood at 646.6 billion won (US$ 516 million), a mere 0.11 percent of the total amount of listed bonds.

Table 5: Foreign Investment in Domestic Bonds

(Unit: billion won)

Date	Purchase	Sale	Net Purchase	Accumulated Holdings
1994	46.7	8.1	38.6	38.6
1995	31.5	8.6	22.9	61.5
1996	34.3	14.3	20.0	74.7
1997	331.6	132.7	198.9	209.4
1998	5,490.6	2,515.1	2,975.5	968.3
1999	1,558.8	777.0	781.8	1,156.7
2000	1,295.8	1,688.3	(392.5)	692.1
2001	670.0	5.0	665.0	429.3
2002	752.1	295.7	456.4	646.6

Source: Financial Supervisory Service

For these reasons, foreign investment will likely remain low in the short term. Nonetheless, encouraging foreign investment is critical for continuing market development. To this end, Korea must recover its market stability while information disclosure and transparency improves for all potential investors. In addition, Korea should rectify the practice where transactions are conducted behind closed doors.

[58] Investment ceilings on government and public bonds were eliminated, and special and corporate bond markets were opened to foreign investments. As noted above, special bonds are issued under authority given to various public firms to raise funds for their projects and facilities.

Reforms related to withholding taxes can also be used to encourage foreign investments. In principle, unless an exemption exists under the tax treaty, bond interest and premiums paid to non-residents without any permanent establishment are subject to withholding taxes. Since more investors are broadening their horizons using foreign securities to diversify their portfolios, the issue of withholding tax on investment income earned in foreign countries is becoming increasingly important. In fact, the rules governing withholding tax rates vary widely from country to country. Therefore it is important to devise a favorable tax system that attracts more investors.

5.4 Diversification of Corporate Bonds

The more mature the bond market, the larger the range of bonds. Diverse bonds are beneficial to issuers and investors alike. While the Korean bond market has come a long way, it still lacks depth and depth. Horizontally, in terms of bond maturities, the market should provide more bonds with longer maturities (currently short- to mid-term maturities are dominant). Vertically, in terms of investment grades, the market should provide more bonds with lower grades (currently above investment grade bonds are dominant).

Government efforts to provide more bonds with long-term maturities are underway. Officials are trying to issue more long-term government bonds in order to expand the maturity spectrum and set benchmarks for corporate bonds. On a positive note, the yield curve in the corporate bond market is moving upward. Consequently, short-term bonds' low interest rates will encourage investors to turn to long-term bonds with higher yields. In addition, the growing investment of pension funds and insurance companies will most likely lean towards long-term bonds.

However, visible growth of high-yield bonds is bleak at the moment. A price mismatch exists between the suppliers and buyers. On the demand side, investors hesitate to buy high-yield bonds primarily because of the lack of crucial infrastructure elements, such as pricing mechanisms to assess appropriate bond values and the legal framework to protect investors. On the supply side, companies are also reluctant to issue high-yield bonds for fear that investors will perceive them as financially distressed companies.

Currently, companies with credit ratings below investment grade issue bonds through primary CBOs or other partially guaranteed products. However, this is a temporary measure by the government until the high-yield market is established. By tapping into the high-yield bond market as a financing channel, the corporate sector may facilitate restructuring.

In order to foster the high-yield bond market, Korea needs to implement three key measures. One is the improved protection of bond investors' interests. The second involves developing reliable credit rating systems. Finally, there should be widespread availability of critical bond-related information, such as default and recovery ratios.

6. IMPLICATIONS FOR CHINA'S CORPORATE BOND MARKET DEVELOPMENT

6.1 The Chinese Bond Market; Similarities to the Pre-Reform Korean Market

6.1.1 The Chinese Bond Market

The Chinese bond market is a highly homogeneous market in which the government and the state-owned banks serve as the major issuers. The banking sector is the chief bondholder.

In terms of absolute outstanding bond value, China's bond market recorded impressive growth during the second half of the 1990s and reached Rmb3.4 trillion in November 2002.[59] If China's bond market continues to grow at this remarkable rate, it will surpass the Korean bond market in terms of size, making China the second largest bond market in Asia after Japan.

With rapid economic escalation in progress, China will increasingly resort to capital markets to finance its growth. Therefore, advancement of bond markets in China is critical. The Chinese bond market faces constraints on development, however. Specifically, it lacks a basis for regulatory frameworks, efficient market infrastructure, and liquidity in the secondary market. Further, while government-issued bonds grew substantially in size, there has been virtually no noticeable growth of private sector-issued bonds, perhaps because the Chinese government is repressing the corporate bond market. With a vast number of public projects that need to be financed through bonds, the government may not want to compete with the private sector for investments; and China may be reluctant to risk corporate bond defaults because investors may hold the government responsible as the final guarantor. As a result, China's outstanding corporate bonds stood at an approximate Rmb50 billion (US$6.0 billion) at the end of 2002, which was equivalent to less than 1 percent of the country's gross domestic product.[60]

6.1.2 Similarities to the Pre-Reform Korean Bond Market

In terms of corporate bond market development, Korea fared better than China, in part because Korea recognized the benefits of the bond market earlier on. However, there are a number of similarities between the Korean and Chinese bond markets.

First, and most obvious, is strong government intervention. China's government utilizes a tactic comparable to the Korean government's bond issuance quality control tool to stay in command of bond issuance quantities. Between 1993 and 1999, the Chinese government required all corporate bond issuers to receive approval by the State Development and Planning Commission (SDPC)[61]. The SDPC also allocated the

[59] Yongbeom Kim, Irene Ho, and Mark St Giles (2003).
[60] Muzi.com, "China considers easing corporate bond issuance" (Jan, 2003).
[61] It is now called National Development and Reform Commission (NDRC).

"issuable" bond quota across different industry sectors. The SDPC also granted special permission to issue corporate bonds on a case-by-case basis.

China's government also controls interest rates, just as the Korean government did in the past. Whereas the Korean government established interest rates for issued corporate bonds, China limits the interest rate on corporate bonds to an amount no higher than 140% of the interest rate on banks' fixed savings deposits of the same term.[62] And, like the pre-financial crisis period in Korea, the Chinese corporate bond market is dominated by mandatory bond guarantees. The government ensures that the investors' principal and interest are paid accordingly.

Moreover, like Korea's early capital market, banks essentially govern the Chinese capital market. China's banking sector is much more important than the bond market because the majority of business investments are financed through bank loans. Bond and stock markets only serve as secondary channels. Furthermore, China's banking sector is monopolized by four state-owned banks, which take up the majority of total market deposits and loans.

Because of similarities in the current Chinese and pre-reform Korean bond markets, the Korean experience can provide meaningful insights for the advancement of China's bond market.

6.2 Lessons & Implications from Korea

6.2.1 Synchronized Development of Infrastructure and Investor Base

Synchronizing infrastructure and investor base development is a critical factor that was overlooked by the Korean government. Bond market infrastructure and an investor base must develop concurrently in order to achieve a balanced, viable bond market. As Korea has shown, preferential development of an investor base without the necessary market infrastructure can result in a dysfunctional market. For instance, the makeshift safety net created by the government in the form of bond guarantees stymied the growth of a reliable credit rating system and the development of the credit enhancement system.

Sound bond market infrastructures, namely a liquid secondary market, transparent information disclosure system, reliable credit rating system, and compliance with accounting standards, will provide investors a basis for confidence. Well-developed market infrastructures must deliver the following five benefits: transparency, reliability, accessibility, timeliness, and market diversification.

Keeping in pace with infrastructure development, China must also expand its investor base. Currently, investment funds and securities companies can invest in corporate bonds, but they lack opportunities to do so since only a limited number of bonds are issued. Banks and insurance companies, which currently can only hold Treasury bonds and

[62] Yongbeom Kim, Irene Ho, and Mark St Giles (2003).

limited amount of corporate bonds, should be allowed to freely purchase corporate bonds for higher returns.

To broaden the investor base, China must expand institutional capacity. It should increase the number and size of financial institutions that can invest in corporate bonds, strengthen fund management, and broaden funding sources. It is important to foster institutional investors in China because they act as strategic investors that help enhance competition and drive financial innovation. Fewer financial institutions and institutional investors mean less competition and lower liquidity, which results in increased transaction costs and discourages new investors from entering the market. However, in the course of expanding institutional investors, the government must make it clear that it is not the implicit guarantor of these institutions, as was the case with Korea.

One way to broaden the investor base is through Collective Investment Schemes (CIS). Professionally managed CIS' can facilitate optimization of personal financial wealth asset management by providing individuals with a vehicle for diversification into more risky assets with longer-term investments. Advancement of the fund management industry can also help evolve domestic financial industries through technology and globalization of market activities.

6.2.2 Development of Credit Enhancements

An excessive reliance on guaranteed bonds has been noted as a major roadblock to the development of the Korean market. With the repayment of investment principal and interest on bonds guaranteed, corporate bonds became quasi-loans in Korea. Guarantees weakened the link between the perceived risk of investments and pricing and undermined the need for credit ratings. In the absence of such infrastructure elements, development of non-guaranteed bonds was delayed. As a result, regardless of their financial soundness, small- or medium-size companies had difficulties issuing bonds, leaving most of the corporate bond market to large corporations.

Considering the negative consequences of guaranteed bonds, early establishment of non-guaranteed bonds in China seems logical. However, the Chinese government must consider the same questions Korea faced: How can non-guaranteed bonds take root in the absence of an advanced infrastructure? How can we encourage investors to choose non-guaranteed bonds over guaranteed bonds? In Korea, credit enhancements such as securitizations and partial guarantees (through CBOs and CLOs) have been used to give investors confidence as the market transitions away from bond guarantees, and to transform investors from reluctant to willing market participants.

To function appropriately, partial guarantees require well-developed market infrastructures such as independent credit analysis and credit ratings; disclosure standards that ensure information is reliable, timely and comparable; and enhanced investor protections. Because a partial guarantee does not ensure full repayment of principle and interest, investors must monitor issuers' creditworthiness (thus, partial guarantees also play an important role is preventing moral hazards among investors). As more investors demand reliable information, the market infrastructure will mature significantly to provide it.

Securitization, which separates the credit quality of underlying assets from that of the originator (and thus increases access to a broader range of borrowers), will require comprehensive reforms in China's legal, tax, and accounting systems. It would be a very useful vehicle in China, however, because it will enable banks to strengthen their balance sheets, *i.e.*, boost their capital ratios or lower their gearing ratios, by securitizing NPLs. Finding investors for the subordinated part of the asset-backed security will be difficult in China, as it was in Korea. Therefore, during the initial stages, a public credit enhancement system could be useful to increase demand for the subordinated, lower credit bonds (this is why the Korean government introduced partially guaranteed CBOs and CLOs). Ultimately, private guarantee insurance companies could substitute for or complement government guarantee funds. In advanced capital markets, private guarantee insurance companies are well-developed; thus, foreign participation may play a complementary role for domestic companies to quickly acquire the know-how of financial guarantees.

For credit enhancement schemes to work, a vital infrastructure—reliability and credit rating accuracy—is absolutely necessary. Bond credit analysis is a paramount element of providing investor confidence; thus, credit analysis (expressed in part through credit ratings) must reflect an accurate and timely assessment of corporate management's performance. The accuracy and fairness of credit ratings, and the agencies that provide them, will improve as watchdog organizations advance their own analysis systems. The Chinese government may be able to accelerate the development and reliability of credit rating agencies by devising measures to assess their performance. For example, rating agencies may be assessed by the bond default ratio -- both the bonds' grade at issuance and changes in the grade afterward -- and penalty points may be imposed on rating agencies with higher default ratios. When the default ratio exceeds a certain standard, the rating agencies may be subject to penalty. Joint ventures with foreign agencies would also improve the credibility of domestic agencies.

6.2.3 Simultaneous Government Deregulation and Supervision

The Chinese government should focus on deregulation, and should substitute prudent regulations and supervision for direct government intervention. While the government has an essential role in the first stage of corporate bond market development, its role as a supervisor and *not* a market guarantor must be clearly understood by all participants. In other words, the government should concentrate on ensuring the establishment of the corporate bond market and protecting investors' interests, but *without* direct market intervention.

In the course of creating a healthy investment environment, the government should take necessary measures to create viable bond markets. The government should ease restrictions on the use of financial assets, which would attract institutional investors. To attract individual investors, the government may consider preferential tax treatment. It should also provide financial institutions with the flexibility to issue corporate bonds and engineer new financial products to suit the needs of individuals. Heavy government intervention in China's bond markets—quota and interest rate controls—will prevent market participants from innovating the market toward more sustainable growth.

Deregulation must take place concurrently with the enhancement of information disclosure systems and the strengthening of regulatory supervision. The legal framework must also be strengthened. There must be an explicit understanding between issuers and buyers that contracts will be honored by both parties and that there are certain measures of protection for investors' interests in event of insolvency. The government must ensure that the contract will be implemented as agreed and that there will be follow-up enforcement measures. The legal framework is especially important with longer term contracts; without a strong framework, investors will either resort to short-term bonds or other investment alternatives (*e.g.*, commercial paper and bank deposits). Effective enforcement of the legal and regulatory framework is just as important as, if not more important than, the development of the market itself.

To strengthen supervision, China should design a proper regulatory system for corporate bonds. The consolidation of the supervisory functions of the corporate (non-Government/Quasi-Government) bond sector under the SDPC (State Development and Planning Commission) and the CSRC (China Securities Regulatory Commission) for stock exchange listings of domestic bonds would be a major step toward a better-defined regulatory framework. Further reforms, however, will assist in better supervision of the corporate bond market.

Appendix 1-Conceptual Framework of Corporate Bond Markets before the Financial Crisis of 1997

Objectives	Entity	Market conditions
	Government	
• Capital raising for condensed growth • Corporate bond market formation	• Ministry of Finance • Supervisory agencies - Bank - Securities - Insurance	• Government Intervention • Lax government supervision
	Institutional Investors	
• Investment Base creation	• NBFIs (ITCs) • Banks (trust accounts) • Insurance companies • Pension funds	• Limited investors' interest in bond markets • Active investment in corporate bond markets
	Bond Guarantors	
• Investor retention • Investor confidence enhancement	• Banks • Securities companies • Guarantee Insurance companies • Public Guarantee Funds	• Rapid growth of corporate bond markets • Dominance of short-term maturities • Investors' reliance on implicit guarantee
	Components of Infrastructure	
• Lack of clear vision	• Government bonds for benchmark • Secondary market • Accounting standards • Credit Rating	• Slow growth • Emergence of adverse effects • Difficulties in further growth

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