Korean *Chaebols* in Transition: Road Ahead and Agenda

Edited With An Introduction By
Sung-Hee Jwa &
In Kwon Lee

2000. 8

*Notes on Contributors* 9
Preface

The business environment of the *chaebol*, the large Korean business groups, has changed drastically since the financial crisis of the end of 1997. The introduction of market-enhancing institutions and the digital/network revolution has led to a dramatic fall in transaction costs and also increases the importance of market transactions vis-à-vis intra-group transactions. Most of these changes are market-conforming, which inversely acts to increase the costs of running a number of businesses under a sole umbrella. The *chaebol* need to fundamentally change the way they run their businesses to survive in the future, considering the important changes in markets and institutional contexts that are taking place.

The government policy toward *chaebol* is critically reviewed by the authors of this book, who also evaluate whole *chaebol* restructuring process. They suggest desirable restructuring strategies and investigate the interaction of
economic institutions with the *chaebol’s* incentive structure and management behavior. This volume is composed of eight papers. The papers were prepared individually by the authors and then discussed at the Korea Economic Research Institute or at academic conferences. The authors incorporated the comments and suggestions made by discussants into the final version of their papers.

I am hopeful that this book will be a road map or a guide for the Korean *chaebol* and government in this period of transition. I would like to thank all contributors for their hard work. I would especially like to thank Dr. In Kwon Lee and Dr. Jae-Woo Lee, all of whom contributed a great deal of effort in organizing this project and in publishing this book.

Dr. Sung-Hee Jwa
President
Korea Economic Research Institute

*Notes on Contributors* 11
CONTENTS

Preface ......................................................................................................................... 3

Notes on Contributors ................................................................................................ 9

Introduction ........... Sung-Hee Jwa & In Kwon Lee ...... 13

PART I. Government and Chaebol :

General Perspective


................................. Sung-Hee Jwa and Jung-Hwan Seo ..... 27

I . Introduction

II . Government Policies and Evaluation

III . Growth of the Chaebol

IV . New Government Policies in the Changing

12 Korean Chaebol in Transition : Road Ahead and Agenda

........................................ Ha-Joon Chang and Hong-Jae Park ..... 65

I . Introduction

II . Characterising the Chaebol

III . Understanding the Government-Chaebol Relationship in Korea

IV. Conclusion
PART II. Chaebol Restructuring

Policy and Evaluation

3. Chaebol Restructuring Revisited: A Coasian Perspective .................................... Jae-Woo Lee ··· 111

I. Prologue: A Debate on Externality and Government Intervention

II. Characteristics of Chaebol and Restructuring

III. Changes in Chaebol’s Political and Economic Environments

IV. How Will the Chaebol Determine What to Produce?

V. What Debt-Equity Ratio Level Is Optimal?

VI. The State’s Role in Corporate Restructuring

VII. Post-Chaebol Corporate Map

4. Excess Capacity and Big Deal

................................................................. In Kwon Lee ··· 159

14 Korean Chaebol in Transition: Road Ahead and Agenda
PART III. Chaebol Survival Strategy

5. The Evaluation of Korean Business Groups: Resources, Organization, and Business Portfolio

......... Hicheon Kim, Jung Wha Han, and Robert Hoskisson

............................................................ 185

6. What to Focus on?: Corporate Restructuring Based on
Strategic and Dynamic Relatedness

......................... Ji-Hwan Lee and Costas Markides ..... 211

I. Introduction

II. Diversification and Refocusing

III. Relatedness between Businesses: “Mind the Gap”

IV. Strategic Asset and Core Competencies

V. Industry Clusters Based on Strategic Relatedness

VI. Implications and Conclusion

PART IV. Institution and Chaebol Behavior

7. Economic Institutions, Business Diversification and Economic Growth: Empirical Evidence and Implications of Chaebol Behavior in Korea

................................. Sung-Hee Jwa and In Woo Jun ..... 241

I. Introduction

II. Theoretical Background on the Determinants of Business Diversification

16 *Korean Chaebol in Transition: Road Ahead and Agenda*
III. Cross-Country Analysis of Diversification Behavior
IV. Institutions and Economic Growth
V. Some Speculations on the Diversification Behavior of Korean Firms and
   Implications for Chaebol Diversification
VI. Concluding Remarks

8. Institutional Change and Fundamental Transformation of the Chaebol System

...................... Dong-Won Sohn and Jin-Yeong Kim ..... 270

I. Introduction

II. Korean Chaebol’s Behavior, Structure, and Norms: Past Trends and Institutions

III. Chaebol’s Absorptive Capacity for Global Convergence

IV. Restructuring and Business Scope Reform: An Evaluation of the Shift toward the Network Form

V. Corporate Governance and Chaebol

VI. Discussion and Conclusion
Notes on Contributors

Chang, Ha-Joon

Professor, University of Cambridge


Han, Jung Wha

Professor, Hanyang University


18 *Korean Chaebol in Transition: Road Ahead and Agenda*
Hoskisson, Robert

Professor, University of Oklahoma


Jun, In Woo

Professor, Uiduk University


Jwa, Sung-Hee
President, Korea Economic Research Institute


Kim, Hicheon
Professor, Hanyang University


Kim, Jin-Yeong

Professor, Inha University


Lee, In Kwon

Research Fellow, Korea Economic Research Institute


Notes on Contributors 21
Lee, Jae-Woo
Professor, Dongeui University


Lee, Ji-Hwan
Ph.D. Candidate, London Business School


22 Korean Chaebol in Transition : Road Ahead and Agenda
Markides, Constantinos

Professor, London Business School


Park, Hong-Jae

Ph.D., London University


Seo, Jung-Hwan

Research Fellow, Korea Economic Research Institute


Sohn, Dong-Won

Professor, Inha University


Introduction

Sung-Hee Jwa & In Kwon Lee
Korea’s long standing economic miracle, driven by its rapid export-oriented development, high levels of saving and investment, moderate inflation and large government financial surpluses was shattered in the wake of the severe financial crisis that hit just one year after Korea joined the OECD. It is widely accepted that certain structural weakness in the corporate and financial sectors have made Korea vulnerable to the financial disturbances that swept through Asia during 1997. The financial system, already weak and operating inefficiently, was further weakened by a series of chaebol bankruptcies in 1997. The corporate sector was characterized by excessive debt and low returns, reflecting the tendency of the chaebol to diversify into capital-intensive heavy industries using short-term bank loans through a system of cross-debt guarantees between affiliated firms.

The business environment of the chaebol, the large Korean business groups, has changed drastically since the financial crisis of the end of 1997. To remedy the structural weaknesses in the corporate sector, the Korean government
has launched a rather aggressive *chaebol* reform package, supported by the IMF and other international agencies. The main objective of *chaebol* restructuring is to restore the competitiveness of the corporate sector and to bring business conditions in Korea in line with international practices and standards. The five tasks established to reach this objective are as follows: improvement of the corporate governance framework, enhancement of management transparency, elimination of cross-debt guarantees, improvement of the capital structure of firms, and greater concentration in core businesses. In each of these areas, significant changes have taken place. The *chaebol* need to fundamentally change the way they run their businesses to survive in the future, considering the important changes in market and institutional contexts that are taking place. The *chaebol* have actually gone through considerable governance, capital, and business portfolio restructuring. The new market-oriented institutions have sped up this restructuring process. However, the government has been prone to rely on intervention in the
process of corporate restructuring, just as in the past.

In this volume, composed of eight papers, we critically review the government policy toward chaebol. We evaluate whole chaebol restructuring process and also suggest desirable restructuring strategies, and investigate the interaction of economic institutions with the chaebol’s incentive structure and management behavior.

I. Government and Chaebol: General Perspective

Government policies are critically reviewed and evaluated in the two papers by Sung-hee Jwa and Jungwhan Suh, and Ha-Joon Chang and Hong-Jae Park. Sung-Hee Jwa and Jungwhan Suh note that the strategy of government-led economic management has contributed to economic growth in the early phases of Korean economic development. However, extensive government intervention has brought about problems to the smooth operation of the market.
economy. Before the crisis, the government actively intervened in every phase of market operation. Entry and exit barriers and financial and tax supports were the tools of industrial policy. Entry barriers basically allowing only the existing large corporations to enter the targeted industries and policies designed to support these corporations contributed to the rise of big diversified enterprises, the Korean chaebol. Moreover, exit barriers erected as a result of active governmental intervention in industrial and corporate restructuring inhibited the natural flow of economic resources from non-viable firms to viable ones. Financial support included loans of scarce financial resources at preferential, subsidized rates with long maturity periods to corporations chosen to operate in selected industries. These practices resulted in biased resource allocation.

The authors also note that post-crisis corporate restructuring has proceeded under strong governmental guidance. There has been progress in corporate governance and financial and business structures. However, they argue

Notes on Contributors 29
that the process of restructuring is reminiscent of the interventionist industrial restructuring attempts of the 1970s and 1980s. Furthermore, the measures adopted in the restructuring process could raise doubts as to the consistency of government policy. This restructuring process, according to the authors, has paid too much attention to changing outward symptomatic characteristics rather than setting the correct underlying institutional and incentive structures. Jwa and Suh recommend that the new direction of industrial policies follow a shift of philosophical background in economic management on the part of the government to nurture and preserve the smooth operation of market mechanisms.

Ha-Joon Chang and Hong-Jae Park note that the financial crisis of 1997 has brought about a sea of change in the prevailing view on the Korean economy. Nowhere is this about-turn more apparent than in the analysis of the Korean big businesses and their relationship with the government. Once seen as highly effective, if somewhat idiosyncratic,
protagonists of the country’s impressive industrial catching-up, the authors argue that the chaebol are now regarded as pathological business organizations that are responsible for the downfall of the economy. Likewise, the cooperative government-chaebol relationship, which was previously regarded by most as one important ingredient in the country’s economic success, is now condemned as a corrupt league that hampered economic efficiency in the country.

Chang and Park point out that some of the allegedly pathological features of the chaebol – extremely low profitability, excessively high leverage, and excessive aversion to financing through the stock market – are based on weak empirical bases. Some other features – such as excessive diversification and high concentration of insider ownership – are partly true, but they are not as problematic as they are often thought to be. More importantly, the authors argue, the currently dominant view fails to understand the nature of the investment-growth dynamics that has characterized the Korean economy during the last few
decades, of which many of the allegedly pathological features of the Korean *chaebol* were integral. Therefore, the authors argue, the currently dominant corporate reform agenda is very likely to weaken the “traditional” Korean economic system, such as the ability to mobilize “patient” capital. Moreover, it is argued, the currently dominant corporate reform agenda will not be able to address what the authors think are the real problems posed by the *chaebol* – namely, their tendency to over-invest and the possible abuse of their enormous economic and political powers. Chang and Park argue that addressing such problems requires a revival of judicious and forward-looking industrial policies and financial regulations, as well as the restructuring of the government-chaebol relationship in a more consensual and accountable way.

**II. Chaebol Restructuring Policy and Evaluation**

*Chaebol* restructuring process is comprehensively...
evaluated in the papers by Jae-Woo Lee and In Kwon Lee. Jae-Woo Lee performs a comprehensive examination of chaebol restructuring in his paper. He argues that the chaebol need to change the way they do business to survive in a transition era characterized by market and institutional changes. In addition, the digital revolution has led to a dramatic fall in information costs, which are a major component of transaction costs. This will have a great impact on group management. While the IT (information technology) revolution acts to expand the boundaries of firms, it also increases the importance of market transactions vis-à-vis intra-firm transactions. Overall, the former effect will be more important than the latter. In the end, most of these changes will be market-enhancing, which inversely acts to increase the costs of running a number of businesses under a sole umbrella.

The most influential factor for changing the cost structure of business group management, argues the author, is competition in the marketplace. Both in domestic and
international markets, *chaebol* groups are being exposed to stronger competition than ever. The increasing pressure from global competitors forces the *chaebol* to face an “inflection point” where those giant groups must give up their old habit of top-down management by owners or founding managers and their excessive levels of conglomerate ownership and financial leveraging.

However, Lee does not advocate that the *chaebol* become the opposite of what they are now: extremely specialized companies (no diversification at all) with purely equity-financed capital structures (no debt at all). It would be premature to foresee in what ways the *chaebol* will react to the changes in the constraints or choice set. However, according to the author one thing that is certain is that internally-organized transactions are more costly than market-type transactions. Hence, market transactions will increase to a great degree. Responding to market pressure, the *chaebol* will have to go through a dismantling phase, ultimately becoming a federation of affiliated subsidiaries,
which will be more loosely linked than ever.

More specifically, many subgroups will be spun-off from the chaebol, a process termed FBO (Family Buyouts). Furthermore, traditional MBOs (Management Buyouts) and EBOs (Employee Buyouts) will be popular at the firm level. Professional managers and their managerial authority will gain importance. Direct subsidization disregarding profit will not be allowed any more. In addition, non-performing divisions will be shed or spun-off.

In addition to refocusing, most of the functionally or vertically integrated networks inside the chaebol will be dismantled. For example, several chaebol subsidiaries that performed special functions in the past will be spun-off to become subcontractors or will be replaced through independent outsourcing. Any function such as advertising, R&D, finance, labor management, intermediate parts and material procurement, and general management can be considered as candidates for outsourcing.

The refocusing and de-leveraging trends are linked

Notes on Contributors 35
to more stringent market discipline on the part of current management. For example, debt-equity conversions, which have been popular in debt restructuring, ultimately affect the ownership structure of enterprises. Many founding managers have already lost control rights owing to the dilution of ownership. Furthermore, legal protection of small shareholders is given more attention than ever. Internal trades among subsidiaries will be strongly regulated by chaebol watchdogs such as the Fair Trade Commission and the Financial Supervisory Commission. As a result, according to Lee, managerial and accounting transparency will be enhanced.

In Kwon Lee notes in his paper that chronic excess capacity or over-investment has been a key issue whenever Korea goes through an economic crisis. In 1998, the government came up with the “Big Deal” policy, in which the 5 largest chaebol were asked to swap 8 businesses among themselves in key industries to alleviate chronic excess capacity in these businesses, which was pointed out as one of
the key factors in bringing about the financial crisis of 1997. Looking back on past industrial policies vis-à-vis excess capacity since the 1980s, the latter has continuously been mentioned at the center of industrial policy and without exception the government has taken an active part in reallocating resources to solve that problem.

Based on the statistical analysis of a panel data composed of financial information from 26 firms over the sample period of 1988-1998, Lee rigorously examines whether chronic excess capacity has existed or not and which factors determine the scale of excess capacity. The statistical evidence indicates that structurally excessive capacity due to continual over-investment far in excess of growing aggregate demand over the sample period has existed in the auto, aerospace, railway vehicle, and power-generator/ship-engine industries.

From the statistical analysis in his study, Lee concludes that it is not feasible to attain the policy goal of successfully restructuring industries using government
intervention as a tool for resource allocation since the government cannot ex-ante control a variety of strategic behavioral patterns on the part of competing firms in an oligopolistic industry. A firm’s strategic decision to maximize profits subject to the constraints existing in its business environment is rational at the firm level even if it may bring about excess capacity at the industry level ex-post, according to the author.

The statistical results in Lee’s study verify the theoretical inference that an excess capacity strategy may enable incumbents to threaten to expand output and cut prices following a competitor’s entry, thereby making entry unprofitable. It is also worth noting that this statistical result is partially attributable to incumbents’ exploitation of entry regulation policies. Incumbents benefit from the government’s entry regulations by intentionally keeping a certain level of excess capacity whenever a potential competitor tries to enter the market. If this inference holds true, entry deregulation will significantly reduce incumbents’

38 Korean Chaebol in Transition : Road Ahead and Agenda
incentives to take advantage of entry regulations and engage in the socially wasteful expansion of facilities.

III. Chaebol Survival Strategy

Restructuring strategy is the subject taken up in the paper by Hicheon Kim, Jung Wha Han, and Robert Hoskisson and the one by Ji-Hwan Lee and Costas Markides. Hicheon Kim, Jung Wha Han, and Robert Hoskisson evaluate the theoretical underpinnings of the diversification strategy of business groups in Korea and suggest future directions. Underlying their analysis are two theoretical propositions about the economics of diversification strategy: the value-creation potential of diversification depends on the quality of the underlying economic institutions supporting the economy; and the strategy-structure fit is a key determinant of the performance of diversified firms. As a consequence, they take into consideration institutional contexts and organizational arrangements in evaluating the
diversification strategies of business groups. The business group is an organizational solution to overcome problems stemming from poor economic institutions. In the early stages of economic development, capital, labor, and intermediate product markets were non-existent or performing poorly and, as a result, companies had no choice but to generate these resources internally. In this context, internal market capabilities based on diversified business structures were a source of competitive advantage and growth for business groups. However, as external markets develop and become efficient, such internal market capabilities decline in strategic significance and diversified business structures come to be perceived as a cause of inefficiency.

With the development of economic institutions and competitive environments, the significance of generic resources (capital and human resources) declines and that of specialized resources (technological and marketing skills) increases as sources of competitive advantage. From the
standpoint of specialized resources, the business portfolio of the business group is often unrelated, but the group still continues to be managed in a top-down fashion. As such, the strategy-structure relationship becomes misaligned. Kim et al. insist that Korean business groups’ problems lie not so much in the unrelatedness of business portfolios as in the strategy-structure misfit. Unrelated diversified firms can sustain a corporate advantage if aligned with appropriate organizational systems. They note that related and unrelated diversification aim at different economic benefits, which impose different, often conflicting, organizational requirements on firms. There is no best formula for the strategy of diversified firms. There are multiple ways of creating value while pursuing a diversified business portfolio and each business group should design its own model of corporate strategy.

Ji-Hwan Lee and Costas Markides note that restructuring towards core businesses seems to have been the hallmark of corporate activity on the part of the Korean

Notes on Contributors 41
chaebol preparing for the new millennium. In this refocusing wave, the economic giants are being instructed to merge, close, and/or exchange affiliates that are not related with the core ones, relying largely on our common sense of industries and businesses.

However, a key question to ask is: “What is related and what is unrelated?” In a similar vein with previous research by Markides and Williamson (1994, 1996), the authors argue that SIC-based measures may lack the qualities necessary to recognize the similarities between industries because they do not distinguish non-strategic from strategic assets. At the heart of the matter is the fact that these measures cannot properly value those assets that underpin a firm’s cost or differentiation advantage and are imperfectly substitutable, imperfectly tradable, and not easily duplicable. In addition, traditional measures also tend to fail to capture the dynamic competencies to improve, accumulate and create strategic assets.

In an empirical study, the authors collected data

42 Korean Chaebol in Transition: Road Ahead and Agenda
from an Internet-based survey as well as from secondary sources. Using a multivariate statistical technique of cluster analysis, they reclassify industries based on structural indicators of strategic assets in each industry. The results show which industry segments are related with each other and thus have greater potential for realizing the benefits of sharing resources, skills and knowledge (economies of scope). It also reveals what kinds of strategic assets and competencies are important for competitors in each industry cluster and, in turn, have implications on the business-level competitive strategy as well as corporate-level portfolio restructuring.

**IV. Institutions and Chaebol Behavior**

Economic institutions, incentive structures and chaebol behavior are the subjects discussed in the papers by Sung-Hee Jwa and In Woo Jun on the one hand and Dong-Won Sohn and Jin-Yeong Kim on the other. Jwa and Jun
have empirically investigated the business diversification behavior of firms and the effects of economic institutions on economic growth through a cross-country analysis. From these analyses they have expected to derive several policy implications for the Korean economy with regards to chaebol diversification.

The cross-country analysis has confirmed that, in general, a secure property rights system encourages the formation of large firms with more diversification while increased market competition tends to discourage unrelated diversification, though the latter effect is a little weak. On the other hand, both turn out to be strong positive contributions to economic growth. Some aspects of corporate governance systems are seen to be important determinants of diversification and economic performance. The legal commercial system under the Roman law tradition tends to discourage diversification while the one derived from the common law tradition encourages more diversification. On the other hand, the common law system turns out to have a
positive contribution on economic development, contrary to the Roman law system. It seems the case that strong shareholder rights do not have any discernable effects on diversification behavior but have very strong positive effect on economic growth.

Using the estimated coefficients of the regression model, they have projected the level of diversification for Korean firms. Although there are some differences depending on model specification, they have found that the actual level of diversification in Korean firms turns out to be lower than the projected level. However, the level of diversification of the *chaebol*, measured by counting the number of affiliates listed on the stock market and avoiding double counting where a chaebol has more than one affiliate operating in the given industry, seems to be rather high and is actually the highest among countries in our sample where diversification is measured as the degree of product line diversification.

In general, the empirical results may be interpreted

*Notes on Contributors* 45
to support the arguments that stress the importance of secure property rights, the reform of corporate governance structure and market competition, including market opening, in formulating chaebol policies to discipline their behavior, including diversification. Therefore, Jwa and Jun have drawn the policy implication that the government should focus on establishing the proper economic institutions and economic environment, not on interfering with chaebol diversification directly.

Dong-Won Sohn and Jin-Yeong Kim address the transformation of the Korean chaebol, a process that is placed at the center of Korean economic reforms. They assume that the Korean economy’s future is highly dependent on the balance of two forces, one force being global convergence pressure and the other being past behavior that is intrinsically path-dependent and resistant to change. While the first force is driving the system to reform toward global convergence, the latter is a countervailing one. The co-existence of two forces implies difficulties in the
transition of the Korean economic system and, accordingly, in chaebol reform.

Based on the institutionalist idea that chaebol reform has to be aligned with institutional changes, Sohn and Kim analyzed Korea’s formal and informal economic institutions. Of the formal institutions, the financial and labor markets, government regulations and legal aspects were particularly emphasized, while informal institutions were investigated through the business system framework proposed by Whitley (1992). They found a high level of institutional complementarity and path dependence from the analysis, in other words, a low degree of absorptive capacity by Korean institutions for global convergence. Findings would suggest that it is appropriate to promote simultaneous change along economic institutions and chaebol behavior because both of them co-evolve.

The authors specifically examine two important areas for discussing the desirable direction of the chaebol: organizational restructuring and governance structure reform.

Notes on Contributors 47
First, with respect to chaebol restructuring, they argue through a close look at the Korean institutional context that to adopt the core competency strategy by reversing diversification is not a good policy for the Korean chaebol, although it is good for firms in advanced institutional contexts. They also believe that a holding company structure would contribute to promoting transparency and accountability and to building weak network forms by eliminating cross-holdings and cross-guarantees among firms. More focus on related businesses and the elimination of unrelated ones are recommended, along with institutional evolution.

The authors also evaluated the chaebol-related reforms of the Korean government in order to obtain desirable policy directions with regard to corporate governance. The overall policy tone of the Korean government on corporate governance is interventionist and content-specific. They argue that among two predominant models of corporate governance, the American market-based and Japanese network-based models, the Japanese model seems to be more valid in the Korean context. They recommend some ways to make up for the shortcomings of the Japanese style of corporate governance.
PART I

Government and Chaebol: General Perspective
1. Industrial Policies and the *Chaebol*

Sung-Hee Jwa and Jung-Hwan Seo
I. Introduction

The economic distress that started with the financial crisis at the end of 1997 changed the environment of the Korean economy. As a response to the crisis, the Korean government implemented emergency measures to rescue the economy, and since then the economy has been going through drastic economic restructuring programs. Throughout the crisis, Korea has tried to raise the standards and the legal framework of the economy to global levels. Through this process, it has almost completely opened up its economy to the world. As a result, the domestic economic environment has dramatically changed. Moreover, the world economy has been rapidly globalizing, which is a great challenge to the resuscitating Korean economy.

Recently, major economic indicators have been showing signs of recovery. However, it is yet to be determined whether the economic recovery is a result of economic restructuring and what effects it will have in the long run. It is common knowledge that extensive government intervention has prevailed in the Korean economy for the last 30 years. This strategy of government-led economic management has contributed to economic growth in the early phase of economic development. However, extensive government intervention has brought about problems to the smooth operation of the market economy. With the rapidly changing domestic and international economic environments, those and recent restructuring policies should be reevaluated in searching for
policies appropriate to the new environment. In this paper, we look back and evaluate past Korean industrial policies and then attempt to propose an appropriate framework for industrial policies in the future. The new direction of industrial policies requires a shift of philosophical background in government economic management to nurture and preserve the smooth operation of market mechanisms.

The rest of the paper is organized as follows: Section II presents and evaluates the industrial policies that have been adopted by the Korean government in the past. We consider interventionist industrial policies to be one of the main causes of the crisis. In particular, section II-4 presents a specific case study of industrial policy lifecycle. It will show how an interventionist industrial policy was established and implemented, and what kind of problems it has produced to the operation of market mechanisms. Section III presents the economic environment that Korea will confront in the future and proposes a framework for new industrial policies.

II. Industrial Policies and Evaluation

1. Overview of the Debate on the Role of Government in Economic Growth

There is an interesting debate about whether or not the government in an underdeveloped capitalistic market eco-
nomy can improve upon the market outcome of resource mobilization and resource allocation. The debate is ultimately reduced to measuring the importance of market failure (absent market mechanisms) versus government failure (government’s inability to assume the role of markets or to introduce market institutions).

While observing the remarkable success of economic development in East Asian countries such as Japan, Korea, and Taiwan over the past thirty years or so, adherents to the neoclassical view\(^1\) feel that one important lesson should be learned from the East Asian experience. In short, this lesson, as far as economic policy is concerned, is to get the basics right. They argue that the government should provide a stable macroeconomic environment and a reliable legal framework where market forces can act unhindered. Minimum intervention with the lowest degree of relative price distortion is a virtue. They believe that Asian economies benefited most from a strategy where the government more or less followed the lead of the market rather than tried to actively direct it.

On the other hand, a group of economists known as the revisionists\(^2\) attribute greater significance to other aspects of East Asia’s success, aspects that have gone relatively unnoticed by neoclassicists. They observe that the government has taken a much more active role in the economic development process than the one envisaged by neoclassicists and

---

1) For example, Krueger (1985), Balassa (1987)  
2) For example, Wade (1990), Amsden (1989)
thus argue that despite efforts to do quite the opposite, the government has actually been leading the market. Revisionists even go on to argue that during the late industrialization stage, the state should set relative prices at deliberately ‘wrong’ levels in order to create profitable investment opportunities. Also emphasized is the existence of market failures in developing economies due to market imperfections, such as the lack of relevant markets. It is thus contended that a positive role of the government is necessary for the treatment of these failures as markets consistently fail to guide resource allocation toward the highest growth areas in the economy. Amsden, one of the staunchest revisionists, even suggests that the central bank may support priority industries at the cost of macroeconomic stability.

The World Bank (1993) answered the revisionists’ argument with the reassertion of an obvious truth. “For interventions that attempt to guide resource allocation to succeed, they must address failures in the working of markets.

3) “Under such disequilibrating conditions, the state’s role in late industrialization is to mediate market forces. The state in late industrialization stages has intervened to address the needs of both savers and investors, and of both exporters and importers, by creating multiple prices. Some interest rates are higher than others. Importers and exporters face different prices for foreign currency. Insofar as the state in late industrialization stages has intervened to establish multiple prices in the same market, it cannot be said to have gotten relative prices ‘right,’ as dictated by supply and demand. In fact, the state in late industrialization stages has deliberately set relative prices ‘wrong’ in order to create profitable investment opportunities.” Amsden (1989), pp.13-14.

4) “Whatever the relationship between inflation and investment in theory, in practice inflation did accompany Korea’s push into heavy industries under government leadership in the late 1970s... The pursuit of fast growth was not restrained in the interest of price stability.” Amsden (1989), p.100.

Korean Chaebol in Transition : Road Ahead and Agenda
Otherwise, the market would perform the allocation function more efficiently.”5)

In sum, the debate on the role of the government in economic development seems to center around the issue of market failure versus government failure. In this regard, it may be useful to remember that market failure generally reflects the failure of institutions, another form of government failure. This time the failure lies in the government’s inability to set up the right institutions or, in other words, the rules of the game in the economy. Therefore, market failures on their own cannot be considered as an automatic justification for direct government intervention. Rather, the government should try to introduce ‘right’ institutions to provide an optimal environment for an improved economic performance.6) Furthermore, in most cases of apparent market failure, it should not go unnoticed that government regulations or preferential treatment usually turn out to be the major causes of those failures.

In the next three sections, we will look over past Korean industrial policies. They will demonstrate that the government tended to substitute for market operations and to manage the economy in a non-transparent way rather than through the rule of law, which weakened the economy’s ability to adapt to the changing economic environment. It will provide some clues as to the new paradigm of economic management that should substitute for interventionist industrial policies.

6) Vanberg (1991)
2. Industrial Policies before the Crisis

2.1 Summary of Industrial Policies

Schematically, the pattern of Korean industrial policies during the last 30 years could be depicted as a cycle of (i) government selection of industries and corporations to be supported → (ii) mobilization of tax and financial resources and drafting of trade policies to support the selected industries → (iii) government-led restructuring of industries and corporations in distress. The government actively intervened into every phase of the cycle. Entry and exit barriers, and financial and tax supports were the tools of industrial policy. Entry barriers basically allowing only the existing large corporations to enter the targeted industries and policies designed to support these corporations contributed to the rise of big diversified enterprises, the chaebol. Moreover, exit barriers erected as a result of active governmental intervention in industrial and corporate restructuring inhibited the natural flow of economic resources from non-viable firms to viable ones. Financial support included loans of scarce financial resources at preferential, subsidized rates with long maturity periods to corporations chosen to operate in the selected industries. These practices resulted in biased resource allocation.

Meaningful industrial policies in Korea were first implemented in the 1960s, at which time the First Five-year

---

Economic Development Plan\(^8\) was launched. The government targeted the construction of key industries through import-substitution. It selected several industries including fertilizer and refined oil as strategic industries to be supported. Laws supporting these industries were enacted. The government allocated most investment resources, which were procured mainly through foreign loans, to firms operating in these industries.

The most extensive government intervention took place in the 1970s when it carried out “the heavy and chemical industrialization drive”. The government designated certain industries as key industries. These included iron and steel, nonferrous metals, shipbuilding, general machinery, chemicals and electronics. Tax and financial resources as well as trade policies were used to promote the development of these industries. Entry barriers were set up, contributing to the rise of the *chaebol*. During this period, the size of HCIs grew large.

In the 1980s, the problems of the previous decade’s industrial policies started to surface. Over-investment in HCIs and the expansionary monetary policy that caused high inflation led the government to refrain from active industrial promotion policies. The industrial policies were redrawn to support technology-intensive industries. The underlying motive for this shift was to correct the structural imbalance that

---

\(^8\) Five-Year Economic Development Plans were implemented every five years starting in 1961 during the 1960s and 1970s. However, from the 1980s on, the plans have merely been a broad profile of government economic objectives.

1. Industrial Policies and the Chaebol 47
started to appear in the manufacturing sector in the late
1970s. Massive inflows of funds into HCIs were cut off,
leaving many of these industries with severe overcapacity.
Moreover, the government closely interfered in industrial
and corporate restructuring.

In the 1990s, the government’s economic policy empha-
sized deregulation. The government rescinded many existing
regulations, but sometimes revived the once repealed ones.
The government’s interventionist “habit” and the private
sector’s persistent expectations of government initiation/in-
tervention in the market have kept impeding the develop-
ment of a market economy.

2.2 Productivity Trend : Evidence of the Effects of
Industrial Policies

Studies\(^9\) show that the quantitative growth of inputs,
rather than the growth of input productivity, fueled the
growth of the Korean manufacturing sector. During 1975-
1980, there were massive investments in HCIs. The yearly
average growth rates of capital intensity were 24.6% in
general machinery, 18.5% in the steel industry, and more
than 10% in the other HCIs. In Korea, R&D and managerial
skills did not catch up with the increase in capital investment,
i.e. resource allocation was inefficient. As a result, factor
productivity decreased. In particular, input productivity in
most HCIs decreased between 1970-1980 (and some of them
between 1970-1985). These results imply that the govern-

\(^9\) Lee (1998b), Moon et al. (1990)

48 Korean Chaebol in Transition : Road Ahead and Agenda
ment’s interventionist industrial policy, together with the two oil crises of the 1970s, generated inefficient resource allocation.

For example, Table 1 shows that total factor productivity in the manufacturing sector decreased during 1975-1985 and started to gradually increase from the early 1990s.

**<Table 1> Increase of Total Factor Productivity (%)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing rate of TFP</td>
<td>3.30</td>
<td>1.56</td>
<td>-3.10</td>
<td>-0.26</td>
<td>0.76</td>
<td>2.43</td>
</tr>
</tbody>
</table>

Source: Lee (1998b)

Moreover, the number of industries whose input productivity decreased rose between 1970-1990 (See Table 2).

**<Table 2> Distribution of Total Factor Productivity**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Below -4%</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>-3 ~ -3.9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>-2 ~ -2.9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>-1 ~ -1.9</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>-0.9 ~ 0</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>0 ~ 0.9</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>1 ~ 1.9</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2 ~ 2.9</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>3 ~ 3.9</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Above 4%</td>
<td>13</td>
<td>17</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Lee (1998b)

1. Industrial Policies and the Chaebol 49
Additionally, the government’s system of financial and tax support to selected firms in the targeted industries was not effective. Some studies show that it did not statistically contribute to the increase in input productivity.\textsuperscript{10)

\textbf{2.3 Evaluation : Interventionist Industrial Policies as a Cause of the Crisis}

The government-led interventionist industrial policy strategy generated various structural problems. First, industry- and firm-targeting industrial policies greatly distorted resource allocation. They frequently tended to substitute for the price mechanism. It resulted in over-investment in and subsequent restructuring of the HCIs. Preferential industrial policies have worsened economic concentration, resulting in structural imbalance between big and small-and-medium firms and a monopolistic economic structure. Second, government control of the financial sector as a tool to support its industrial policy undermined financial institutions’ ability to discriminate between competent and incompetent firms and projects and to monitor the performance of borrowing firms. It eventually led to the underdevelopment of the financial sector. Third, persistent government intervention destroyed private sector incentives for creative economic ventures. State support of selected industries and firms, and government control of the financial sector made the private sector dependent on governmental guidance and coordination. In addition, since the government helped the large

\textsuperscript{10) Lee (1994), Lee (1998b)}

\textit{50 Korean Chaebol in Transition : Road Ahead and Agenda}
enterprises, especially the chaebol, survive financial difficulties by showering them with preferential measures, the too-big-to-fail legacy emerged and moral hazard ensued. Lastly, in political economic sense, the government’s ability to select and support strategic industries and to enforce restructuring programs generated room for rent-seeking. The corporations lobbied government officials, which raised suspicions of corruption. It also contributed to the prevalent anti-chaebol sentiment.

By and large, interventionist industrial policies greatly contributed to the development of the crisis. They frequently substituted for market operations, nourishing the private sector’s dependence on the government, which lead to a decrease in the private sector’s autonomy and creativity. As a result, the effectiveness of market mechanisms declined and moral hazards prevailed in the economy. Due to these moral hazards, the necessity for economic restructuring to allow market mechanisms to work was likely to be unrecognized. Economic agents didn’t have many incentives to adapt to the changing economic environment. These factors provided an environment conducive to an economic crisis. Because of the lack of market flexibility and ability of adaptation, the economy was unable to prevent the occurrence of a crisis. Moreover, economic agents had to resort to another great government intervention to respond to the crisis, i.e., they depended on the government in clearing up all the vestiges of the government’s past interventionist policies.

1. Industrial Policies and the Chaebol 51
3. Post-Crisis Corporate Restructuring

3.1 Corporate Restructuring

The direct cause of the crisis in Korea was a combination of measures undertaken by the Korean government in 1997 that acted as a trigger and the Korean government’s policy of overvaluation of the exchange rate. The poorly implemented financial liberalization measures were also responsible for weakening the corporate financial structure. Furthermore, inadequate prudential regulations and supervision were responsible for accelerating the collapse of the economy following the inappropriate sequencing of the domestic financial market’s liberalization.\textsuperscript{11)} For the corporate sector, the IMF pinpointed the Korean chaebol as the culprits of Korea’s structural weakness and stressed the need for rigorous corporate restructuring. High debt-equity ratios and a very poor use of capital in the corporate sector prior to the crisis aggravated the impact of tightening liquidity on corporate cash flow and investment activities under the tight macroeconomic policy stance of the IMF program. Cross-debt guarantees between chaebol affiliates, which was a strategy used by the chaebol to increase the amount of loans they were getting, helped create high debt levels among the Korean industrial giants.

As for the top thirty chaebol, the new D.J. Kim government presented five principles for chaebol reform in Jan. 1998, as shown in Table 3.

\textsuperscript{11) Jwa and Yi (1999)}

52 Korean Chaebol in Transition : Road Ahead and Agenda
### Table 3: Five Principles for Chaebol Reform

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Measures</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enhanced Transparency</strong></td>
<td>• Adoption of consolidated financial statements</td>
<td>• FY 1999</td>
</tr>
<tr>
<td></td>
<td>• Adoption of international accounting principles</td>
<td>• Oct. 1998</td>
</tr>
<tr>
<td></td>
<td>• Strengthening the voting rights of minority shareholders</td>
<td>• May 1998</td>
</tr>
<tr>
<td></td>
<td>• Compulsory appointment of outside directors</td>
<td>• Feb. 1998</td>
</tr>
<tr>
<td></td>
<td>• Establishment of external auditors committee</td>
<td>• Feb. 1998</td>
</tr>
<tr>
<td><strong>Strengthening Accountability</strong></td>
<td>• Strengthening the legal liability of controlling owners</td>
<td>• Jun. 1998</td>
</tr>
<tr>
<td></td>
<td>• Granting voting rights to institutional investors</td>
<td>• Sept. 1998</td>
</tr>
<tr>
<td></td>
<td>• Introduction of cumulative voting system</td>
<td>• Dec. 1998</td>
</tr>
<tr>
<td><strong>Resolution of Cross-debt Guarantees</strong></td>
<td>• Elimination of existing cross-debt guarantees</td>
<td>• Mar. 2000</td>
</tr>
<tr>
<td></td>
<td>• Prohibiting new cross-debt guarantees between affiliates</td>
<td>• Apr. 1998</td>
</tr>
<tr>
<td></td>
<td>• Prohibiting financial institutions from demanding cross-debt guarantees</td>
<td>• Apr. 1998</td>
</tr>
<tr>
<td><strong>Improvement of Financial Structure</strong></td>
<td>• Agreement with banks to improve capital structure</td>
<td>• Apr. 1998</td>
</tr>
<tr>
<td></td>
<td>• Removal of restriction on capital infusion to affiliates with consideration to defend against hostile takeovers (this restriction was reintroduced in April 2000)</td>
<td>• Feb. 1998</td>
</tr>
<tr>
<td></td>
<td>• Exclusion of income tax deduction on interest payments from excessive borrowings</td>
<td>• FY 2000</td>
</tr>
<tr>
<td></td>
<td>• Introduction of asset-backed securities</td>
<td>• Sept. 1998</td>
</tr>
<tr>
<td></td>
<td>• Requirement of 200% debt-equity ratio (added later)</td>
<td>• Dec. 1999</td>
</tr>
<tr>
<td><strong>Streamlining Business Activities</strong></td>
<td>• Adoption of corporate-split system</td>
<td>• Jun. 1998</td>
</tr>
<tr>
<td></td>
<td>• Improving M&amp;A procedures</td>
<td>• Jun. 1998</td>
</tr>
<tr>
<td></td>
<td>• Liberalization of foreign ownership of real estate</td>
<td>• Jun. 1998</td>
</tr>
<tr>
<td></td>
<td>• Full liberalization of M&amp;As</td>
<td>• May 1998</td>
</tr>
<tr>
<td></td>
<td>• Streamlining bankruptcy procedures</td>
<td>• Feb. 1998</td>
</tr>
</tbody>
</table>

The principles introduced by the President consisted of

1. *Industrial Policies and the Chaebol* 53
three categories. The first category comprised measures that sought to improve the corporate governance structure and managerial transparency. They required the adoption of consolidated financial statements and international accounting principles. In addition, the appointment of outside directors became required by law. Limits on the voting rights of institutional investors were lifted, and the rights of minority shareholders were strengthened. On the other hand, the legal liability of controlling owners was also strengthened. These reforms will help increase the accountability of owner-managers, the so-called group chairmen, and decrease the hold on power that they currently have. One of the problems of the chaebol has been the absolute dominance of the chairman over all affiliated firms. The chairman of a chaebol has the power to fire members of the Board of Directors, who should be the ones keeping the chairman in check. The reforms should help reverse this situation and create a Board with more power.

The second type of measures sought to improve financial conditions and the capital structure of firms and included the elimination of cross-debt guarantees among group affiliates by March 2000. They also covered a reduction in debt-equity ratios to 200% that had to be met by the end of 1999. An agreement to improve the financial structure of the business sector was signed between creditor banks and their corporate clients under governmental guidance, and the government closely monitored the process of financial restructuring. Progress has been made in financial restructuring. Debt-
equity ratios have decreased from 477.08% in 1997 to 390.64% at the end of 1998\textsuperscript{12} and to below 200% by the end of 1999. Most of the top 5 chaebol's cross-debt guarantees were resolved as of January 2000.

Measures in the third category aimed to improve business competitiveness by streamlining business activity. To facilitate the exit or reorganization of insolvent firms, the bankruptcy and corporate reorganization laws were revised. On the other hand, 55 non-viable firms belonging to the 30 largest chaebol were forced to close down. In particular, as part of the efforts to streamline business activities, the top five chaebol agreed to decrease the number of their affiliates and to concentrate on three to five core businesses in order to solve the problems of over-diversification and over-investment.\textsuperscript{13} They reduced the number of affiliates by up to 70% by the year 2000 in return for comprehensive tax breaks and other benefits, including debt-equity swaps by creditors. The government also strongly encouraged big deals among them. The big deals, or more precisely business swap deals, have been taking place in eight major industries including the semiconductor and automobile industries (see Table 4). The big deals, however, are controversial and run counter to the

\textsuperscript{12} Some economists, however, point out that debt has simply been transformed into bonds and that although formal debts have decreased, the actual amount of money owed has not decreased and may in fact have increased. Along this line, critics argue that the achievement of the 200% debt-equity ratio is simply nothing more than an accounting gimmick.

\textsuperscript{13} In the turmoil of corporate restructuring, the Daewoo group, which was the 4\textsuperscript{th} largest chaebol in Korea, collapsed in 1999 and has entered the Workout program.
liberalization trend in that they represent government intervention. At the same time, they do nothing to improve the situation of property rights in Korea as they involve the forced merger or acquisition of companies.

**<Table 4> Progress in Big Deals**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Before Big Deals</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semiconductor</td>
<td>· Samsung Electronic Co. · Hyundai Electronic Ind. · LG Semicon Co.</td>
<td>· Samsung Electronic Co.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>· Hyundai and LG merged into one company (Equity Share-out to be discussed later)</td>
</tr>
<tr>
<td>Petrochemicals</td>
<td>· Samsung General Chemical Co. · Hyundai Petrochemical Co. · Hanwha Petrochemical Co. · Daelim Petrochemical Co.</td>
<td>· Samsung and Hyundai merged into one company (foreign investment is under negotiation)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>· Hanwha and Daelim merged into one company</td>
</tr>
<tr>
<td>Aircraft Parts</td>
<td>· Samsung Aerospace Industries Co. · Daewoo Heavy Industries Co. · Hyundai Space &amp; Aircraft Co.</td>
<td>Form a new, joint company and introduce foreign capital</td>
</tr>
<tr>
<td>Rolling Stock</td>
<td>· Hyundai Precision &amp; Ind. Co. · Daewoo Heavy Ind. Co. · Hanjin Heavy Ind. Co.</td>
<td>Unified into one company</td>
</tr>
<tr>
<td>Power Generation Equipment</td>
<td>· Korea Heavy Industries &amp; Construction Co. (Hanjung) · Samsung Heavy Ind. Co. · Hyundai Heavy Ind. Co.</td>
<td>· Unified into one company</td>
</tr>
<tr>
<td></td>
<td></td>
<td>· Hanjung takes over Samsung’s Business</td>
</tr>
<tr>
<td>Ship-Engine</td>
<td>· Samsung Heavy Ind. Co. · Hyundai Heavy Ind. Co. · Hanjung</td>
<td>Hanjung takes over Samsung’s Business</td>
</tr>
<tr>
<td>Oil Refining</td>
<td>Hanwha Energy Co.</td>
<td>Acquired by Hyundai Oil Co.</td>
</tr>
<tr>
<td>Auto</td>
<td>· Hyundai Motor Co. · Kia Motors · Daewoo motors · Samsung Motors</td>
<td>· Daewoo motors failed to take over Samsung Motors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>· Hyundai Motor Co. took over Kia Motor Co.</td>
</tr>
</tbody>
</table>

* As of November, 1999.

To improve corporate governance and accelerate the corporate restructuring process, measures to revitalize the domestic M&A market were introduced. M&A activities involving foreign firms have been encouraged through the
amendment of the Foreign Capital Inducement Law.

<Table 5> Debt Restructuring Plan and Accomplishment of the Workout Program (100 million Won, %)

<table>
<thead>
<tr>
<th></th>
<th>Grace of Payment</th>
<th>Debt-Equity Swaps (Value)</th>
<th>Others</th>
<th>Total</th>
<th>New Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reduced Interest Rate</td>
<td>Normal Interest Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-64th largest chaebol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan</td>
<td>204,228</td>
<td>33,119</td>
<td>40,495</td>
<td>18,995</td>
<td>296,897</td>
</tr>
<tr>
<td>Accomplished</td>
<td>194,914</td>
<td>30,533</td>
<td>31,696</td>
<td>19,602</td>
<td>276,745</td>
</tr>
<tr>
<td>Mid-size firms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan</td>
<td>28,773</td>
<td>15,452</td>
<td>2,798</td>
<td>5,126</td>
<td>52,109</td>
</tr>
<tr>
<td>Accomplished</td>
<td>28,508</td>
<td>14,611</td>
<td>1,985</td>
<td>5,613</td>
<td>50,717</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plan (composition ratio)</td>
<td>233,021 (66.8%)</td>
<td>48,571 (13.9%)</td>
<td>43,293 (12.4%)</td>
<td>24,121 (6.9%)</td>
<td>349,006 (100%)</td>
</tr>
<tr>
<td>Accomplished (% of the plan)</td>
<td>223,442 (95.9%)</td>
<td>45,144 (92.9%)</td>
<td>33,681 (77.8%)</td>
<td>25,215 (104.5%)</td>
<td>327,462 (93.8%)</td>
</tr>
</tbody>
</table>


For the 6-64th largest chaebol and other mid-size corporations, an out-of-court workout program was introduced by an association of financial institutions. The workout program is a kind of private corporate reorganization process between debtor-firms and creditor-banks. It aims to restructure debtor-firms before they become non-viable so that firms and banks can avoid the agony of corporate bankruptcy. As of September 1999, 59 affiliates of the top 6-64 chaebol and 42 other mid-size firms were under the workout program. In the workout programs, the creditor banks allow a grace of payment and enforce debt-equity swaps as shown in Table 5.

1. Industrial Policies and the Chaebol 57
3.2 Evaluation

Post-crisis corporate restructuring has proceeded under strong governmental guidance. There has been progress in corporate governance and financial and business structures. Reductions in firms’ debt-equity ratios and cross-debt guarantees, the introduction of outside directors, and the closing-down of non-viable firms are among others. However, the process of restructuring is reminiscent of the interventionist industrial restructuring attempts of the 1970s and 1980s.

For example, in the big deals, the government forced M&As upon firms and gave them deadlines by which they must be completed, and determined the acquiring and acquired firms in advance. However, the government underestimated the transaction costs of M&As as well as the differences in production technologies and the technological levels of the merged firms or the acquired and acquiring firms, leading to a time-consuming negotiation process. In addition, the government infringes on the property rights of the companies participating in the restructuring programs. With the pre-set deadlines and strong governmental pressure, the participating companies had to go ahead with the forced M&As without having enough time to think about their soundness. The big deals could raise doubts as to the consistency of government policy: first, they may lead to a significant increase in market concentration, which could be in conflict with governmental policy regulations on economic concentration. Second, after the deals are over, would the government prohibit new entry in the industries affected
by the big deals?

Another example is the reduction of the debt-equity ratio uniformly applied to each of the five largest *chaebol*. The government did not take into account the diversity of economic agents. Considering that each of these *chaebol* has different managerial styles and business outlooks, their debt management plans and/or capability cannot but be different. The policy of lowering the debt-equity ratio might be right, but it is unclear whether the same numerical target and deadline had to be applied to all *chaebol* uniformly. The government announced that it would stick to the 200% debt-equity ratio policy in 2000. However, it will restrict the freedom of the corporate sector in managing financial options, especially in a normal economic environment after the crisis.

It looks as if this restructuring process has paid too much attention to changing outward symptomatic characteristics rather than setting the correct underlying institutional and incentive structures. Government-led restructuring without providing appropriate institutional foundations will not have a lasting effect. A systematic approach such as establishing an economic environment encouraging voluntary restructuring in the process of competition is more favorable to the economy.

Broadly speaking, there are two distinct systems for disciplining corporate behavior, the market-based system and the internal discipline-based system (See Figure 1).
The market-based system can be further broken down into the product market, direct financing market, and market for managers. Through competition in the product market, consumers choose efficient and competitive businesses that produce good products. In the direct financing market, shareholders, through their oversight rights as well as the threat of mergers and acquisitions, discipline incompetent corporate managers. In the indirect financing market, creditors keep close checks on corporate managers, not only by means of close analyses of creditworthiness before extending credits to firms, but also by closely monitoring firms’ use of...
funds. The competition among professional managers in the market for managers contributes to improving overall managerial efficiency by sorting out managers with poor managerial performances. On the other hand, the internal discipline system of oversight relies on inside organizations, such as holding companies, coordination offices, and the board of directors for providing checks and balances on managers. In addition, there is the hybrid approach through which institutional investors appoint outside directors to oversee managers. The proper role of the government is to change laws and institutions and enforce them so as to provide corporate management with an external environment that will ensure the normal functioning of the various disciplinary systems. Then, as these systems begin to operate, firms will start restructuring at a faster pace as they realize that their survival depends on it. This system is far more favorable to the market economy than the government-led restructuring system.

4. An Example of Industrial Policy Lifecycle: Samsung Motor Company

This section will discuss the rise and fall of Samsung Motor Company and the government’s role in the process. This is a typical example of how the government influenced a firm’s activity from entry to exit.

In the process of industrial restructuring, the big deal in the automobile industry fell through. The Samsung Group
decided to seek court receivership for its automobile unit, backing off from its earlier plan to sell the debt-laden unit to the Daewoo group. The story of Samsung Motor Company, a subsidiary of the Samsung Group and a participant in the big deals, is an example of the government’s interventionist industrial policy.

Samsung group, one of the largest chaebol in Korea, signed a ‘technology import contract’ with Nissan Motor Company of Japan on April 26, 1994. It was Samsung’s first step toward entering the automobile industry. However, before the contract was signed the government had undertaken an economic analysis of Samsung’s entry into the Korean automobile industry. As a result of this analysis, on April 28, 1994, the government had decided not to allow Samsung entry. The reasons for this decision were (i) duplication and over-investment in the automobile industry, (ii) exhaustive competition in the limited domestic market, \(^{14}\) and (iii) delay of technological independence caused by the introduction of foreign technology.

However, on November 30, 1994, the government suddenly \(^{15}\) reversed its decision and decided to allow Samsung to enter the automobile industry. Subsequently, Samsung

\(^{14}\) There were three automobile manufacturing companies in Korea: Hyundai Motor Company, Daewoo Motor and Kia Motors. The production capacity of the first two companies was more than two million cars in 1997.

\(^{15}\) There are various political behind-the-scene stories and rumors regarding this event. For example, Pusan, where SMC’s manufacturing unit is located, was the then President’s hometown. It is said that the President decided to allow SMC’s entry into the automobile industry to boost the economy of his hometown. Since those stories cannot be corroborated, it is impossible to know whether they are true.
submitted a report of technology import and the government accepted it. Samsung Motor Company (SMC hereinafter) was established on March 28, 1995 and operation of the production line began on May 12, 1997. SMC introduced its first model into the market on February 17, 1998.

However, there were numerous debates among economists and social reformers on SMC’s competence, profitability and excessive amount of debt. On December 7, 1998, a big deal between Daewoo Motor and SMC stipulating that Daewoo would acquire SMC was announced and on March 22, 1999, the CEOs of both groups agreed on the principles of the big deal.\textsuperscript{16}

There were various conflicts of interests in the process of making the big deal. Most of all, handling SMC’s more than 4 trillion Korean won debt, which is estimated to be more than four times the value of its equity, was a headache to the government as well as to both companies. Eventually, the big deal negotiations fell through and SMC filed for the Corporate Reorganization Process on June 30, 1999. Under that process, the court must decide on whether the filing firm is worth reviving through reorganization, and if the court makes a decision for reorganization, the creditors and the filing firm set up a reorganization plan including debt adjustment. After the filing, the government, along with the subcontractors and the community where SMC is located, \hfill

\textsuperscript{16} The reason for SMC’s participation in the big deal remains unclear. Since the government has strongly pushed the big deals, it probably intervened in the determination of SMC’s exit from the automobile industry.
insisted on keeping SMC alive regardless of its economic viability. Furthermore, the creditors and the government have pressured the CEO of SMC to solve SMC’s debt problem using his own private wealth.

<Table 6> Diary of SMC’s Life

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994. 4.26</td>
<td>Contract of technology import with Nissan</td>
</tr>
<tr>
<td>4.28</td>
<td>Government disallows Samsung’s entry into the automobile industry</td>
</tr>
<tr>
<td>11.30</td>
<td>Government allows Samsung’s entry into the automobile industry</td>
</tr>
<tr>
<td>12.03</td>
<td>Samsung submits its request for technology import</td>
</tr>
<tr>
<td>12.07</td>
<td>Government accepts the report</td>
</tr>
<tr>
<td>1994. 4.28</td>
<td>SMC is established</td>
</tr>
<tr>
<td>1995. 3.28</td>
<td>The production line begins operation</td>
</tr>
<tr>
<td>1997. 5.12</td>
<td>SMC introduces its first model into the market</td>
</tr>
<tr>
<td>1998. 2.17</td>
<td>The big deal between Daewoo Motor and SMC is announced</td>
</tr>
<tr>
<td>1999. 3.22</td>
<td>The CEOs of Daewoo Motor and SMC agree on the principles of the big deal</td>
</tr>
<tr>
<td>6.30</td>
<td>Collapse of the big deal. SMC files for the Corporate Reorganization Process</td>
</tr>
<tr>
<td>10.</td>
<td>Parts of SMC’s production line begin operation thanks to new loans from SMC’s creditor banks</td>
</tr>
<tr>
<td>12.30</td>
<td>Corporate Reorganization Process begins</td>
</tr>
<tr>
<td>2000. 1.17</td>
<td>Renault (a French automobile company) starts negotiations with creditor banks</td>
</tr>
<tr>
<td>4.27</td>
<td>Renault acquires SMC</td>
</tr>
</tbody>
</table>

SMC’s case shows the typical features of interventionist industrial policies. First, the government controlled a private company’s entry into a market – the government determined SMC’s entry into the automobile industry. Second, the government closely interfered with the private sector’s restructuring process. It decided on whether a firm should go bankrupt or be acquired by another firm. The government even determined which firm should acquire the other – the

64 Korean Chaebol in Transition : Road Ahead and Agenda
government determined that Daewoo Motor should acquire SMC.

The life of SMC also reveals how uncertainty arises from intervention. First, what made the government reverse its decision about SMC’s entry into the automobile industry? After all, there were reasons given for disallowing SMC’s entry, but not for the abrupt decision reversal afterwards. As such, nobody knows why the government changed its decision. Consequently, the qualifications required to enter the automobile industry remain unknown. Second, what is the cause of SMC’s failure afterwards? Is it duplication and over-investment in the automobile industry, exhaustive competition in the limited domestic market, or managerial failure? If it is one or both of the first two, then the questions regarding the government’s policy reversal, from barring Samsung’s entry to allowing it, remain unanswered. If the cause is management failure, the court and the creditors should decide on how to handle SMC. But then, why did the government insist on the continuation of SMC’s operations and why did it intervene in the debt-handling process?

Persistent government intervention undermined private sector autonomy and nourished dependence on the government. At this point one has to wonder whether creditors have responsibility for lending money to firms. Why did they wait for the government’s decision instead of actively trying to solve the debt problem? Governmental control of the banking sector during last 30 years has made creditor banks dependent on government guidelines or coordination.

1. Industrial Policies and the Chaebol 65
Sometimes, government intervention creates conflicts with the system of private property rights. What allows the government to pressure the CEO of SMC into paying a corporate debt using his own private wealth? There are neither laws nor regulations in Korea about CEOs surrendering private property except for shareholders giving up their shares in the case of a business failure.

The SMC case shows the legacy of governmental discretion in policy/decision-making, determining the rise and fall of private firms and creating uncertainty due to inconsistent policy-making, private sector lack of autonomy in decision-making, and governmental infringement on private property. Should this kind of industrial policy continue in the 21st century? The next section will provide a direction for industrial policy in the changing economic environment.

III. The Growth of the Chaebol

A chaebol is a business group consisting of many widely diversified and legally independent affiliates. The chaebol have greatly contributed to industrialization during the period of rapid economic growth in Korea and as such constitute an important part of the Korean Economy. The largest 30 chaebol have been involved in over 20 industries each with more than 600 subsidiaries between them. Their asset comprises over 45% of total corporate assets and their value-added takes over 14% of total value-added in Korea.

66 Korean Chaebol in Transition: Road Ahead and Agenda
How have such big business groups grown?

The strategy of government-led economic development set the ground for the growth of the *chaebol*. In the early stages of economic development, the government allowed a few corporations to enter the targeted industries. Since those industries – heavy and chemical – were subject to economies of scale, the size of the corporations involved could not but grow larger. Afterwards, the government continued to make use of these corporations’ experience and managerial skills in the course of economic development. The government gave them preferential entry into the targeted industries, which hindered competition. Moreover, the government offered financial and tax inducements to the chosen firms. Thus, the large corporations had every incentive to diversify their operations according to the government’s industrial targeting policy. They became large business groups. Furthermore, in disposing of insolvent firms, the government reorganized the industrial structure by transferring their ownership to the big business groups, reinforcing the growth of the *chaebol*. In addition, the government, to minimize the huge potential social cost of *chaebol* bankruptcies, resuscitated insolvent *chaebol* or their subsidiaries through preferential measures. As a result, the big business groups had little chance to restructure according to market discipline. The formation and growth of the *chaebol* was the result of the interaction between industrial policies and the *chaebol*’s responses to them.

The growth of the *chaebol* became a burden to economic
policy. Since the *chaebol* were accountable for a large share of the Korean economy’s assets, sales and debts, most industrial policy measures were inevitably connected with them. The *chaebol*, as leading companies in major export-oriented industries such as petrochemicals, automobiles, and semiconductors, had initiated large-scale projects and were exposed to harsh international competition. Moreover, strategic concerns in oligopolistic markets forced them to expand their capacity. They became larger and larger with little experience of how to restructure, generating the notorious ‘too-big-to-fail’ legacy of the *chaebol*. In addition, Korea’s financial system was heavily skewed toward indirect financing through banks, compared to direct financing through the stock market. Moreover, the government controlled the banking system. It allocated financial resources so as to support big businesses and sometimes to resuscitate them. As a result, through over-expansion as well as the given Korean financial structure, the *chaebol* ended up with high debt-equity ratios. Figure 2 shows the debt-equity ratio trend of the big business groups.

From the early 1980s, the anti-monopolist policy began to focus its attention on regulating economic concentration. The ‘Regulation on Monopoly and Fair Trade Act’ (‘The Fair Trade Act’ hereafter) was enacted in 1980. The regulations on M&As and big business groups were introduced in 1986. The regulations on market concentration and cross-debt guarantees among *chaebol* subsidiaries were introduced in 1990 and 1992, respectively. Table 7 presents the main
Data: Bank of Korea and Fair Trade Commission of Korea

regulations regarding economic concentration as of 1990.

The Fair Trade Commission selected the top 30 chaebol, based on the size of their assets, as its main target of regulation. In addition, the government put restrictions on loans to the chaebol to prevent the concentration of financial resources. During the 1990s, it introduced the business specialization policy, inducing the chaebol to limit diversification to 2-3 specialized business lines.

These regulations were not as effective as expected. Both the net assets and cross holdings of the chaebol have increased by 2.1 times during 1993-1997. Market concentration is still high – the top thirty chaebol accounted for 46.88% and 46.62% of total sales in 1988 and 1997, respectively.\(^\text{17}\) The top thirty accounted for 24.2% and 21.5% of total financial loans in 1990 and 1995, respectively.

---

17) Hwang (1999)
<Table 7> Regulations on Economic Concentration as of 1990

<table>
<thead>
<tr>
<th>Market Structure</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suppression of economic concentration</td>
<td>Holding companies are prohibited&lt;br&gt;Restrictions on total investment in subsidiaries&lt;br&gt;Restrictions on cross-debt guarantees&lt;br&gt;Restrictions on voting rights of financial and insurance companies having shares of affiliates</td>
</tr>
<tr>
<td>Restrictions on M&amp;As</td>
<td>Anti-competitive M&amp;As prohibited&lt;br&gt;Unfair M&amp;As are prohibited</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corporate Behavior</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restrictions on exercising market power</td>
<td>Restrictions on unjust price determination and change&lt;br&gt;Restrictions on entry barriers&lt;br&gt;Restrictions on hindering other firms’ operations</td>
</tr>
<tr>
<td>Restrictions on collusion</td>
<td>Restrictions on collusive determination of prices and sale conditions&lt;br&gt;Restrictions on regional demarcation and exclusive dealing</td>
</tr>
<tr>
<td>Restrictions on Unfair Transactions</td>
<td>Maintaining resale prices is prohibited&lt;br&gt;Restrictions on unfair international contracts</td>
</tr>
</tbody>
</table>

Source: KERI (1995)

There are several reasons for the failure of regulations on economic concentration. First, restrictions on competition, including entry barriers and price regulations, were still effective. Second, the government could not commit the fate of incompetent *chaebol* to the care of market mechanisms because of the potential social cost of their financial problems and bankruptcies. So the government kept incompetent *chaebol* subsidiaries alive with public money or merged them to other *chaebol* subsidiaries. Furthermore, the M&A market was inactive and the bankruptcy laws, including reorganization processes that were inadequate, were usually ignored. Third, the financial industry was too immature to exercise its role to check *chaebol* over-expansion. Korean banks did not perform their duty of loan screening
thoroughly because they were used only as tools to support the government’s industrial policies in the so-called “government-managed financial system,” a product of excessive government intervention in the banking sector. Banks and other financial institutions hardly needed and so lacked the requisite ability to conduct credit and project analyses. Since they lacked such ability, for every loan they provided, even for credit loans, they required debt guarantees or collateral to reduce risk. So the chaebol satisfied the banks with cross-debt guarantees among subsidiaries, with which they could obtain as much money as needed for expansion.

All of these factors made regulating the chaebol ineffective and possibly led to the erosion of their competitiveness.

IV. New Industrial Policy in the Changing Environment

1. Changes in the Economic Environment

The IMF program for the financially distressed Korean economy entailed the implementation of global standards and the liberalization of the economy. Throughout the crisis, Korea strengthened the standards and legal frameworks of its economy to global levels. In addition, after the crisis the Korean economy almost completely opened up to the world. These results imply that the government’s ability to intervene...
in the economy will greatly diminish.\textsuperscript{18) As such, the economy will follow global standards.

In addition to this change in the domestic economic environment, we should also pay attention to the rapidly changing world economic environment. During the last 50 years, the world economy has been globalizing (economically integrating) because of increasing inter-dependence between countries, a process made possible by breakthroughs in transport and communication technology and by the liberalization of trade and capital. What will be the effects of rapid globalization on the economic environment?

First, globalization implies the expansion of economic activity across politically defined national and regional boundaries through the increased movement of goods, services, factors of production and economic agents via trade and investment. Preferential and discriminatory policies will become increasingly ineffective under an economic environment that is moving towards globalization. As a result, government-led economic development strategies and policy instruments will also become ineffective. It is easy to see how direct regulations to promote or protect targeted Industries would eventually constitute obstacles to further eco-

\textsuperscript{18) Some worry about the increase in the government’s share of the economy after restructuring. As a result, it is in an even better position to intervene in the economy. For example, in Korea, the government’s share of total stock has increased from 7.4\% in 1996 to 17.3\% in 1998. Since it injected public money into most private banks to recapitalize them, its actual share will be higher than 17.3\%. Thus, the government now carries more weight in the private sector than before. However, it can be expected that with liberalization and globalization, the economy will leave increasingly little room for government intervention.

72 Korean Chaebol in Transition: Road Ahead and Agenda
nomic development. Generally speaking, globalization will ensure that economic policy-making and implementation will proceed according to the principle of non-discrimination and market mechanisms.

Second, in the process of globalization, knowledge, information, and technology will be the most important forces behind economic development. A few industries in the traditional sense do not constitute a sufficient basis for economic growth. Technology and industries are intermeshed with each other; no technology is industry specific.

In the 21st century, networking, systemization, and intellectualization of economic activity will be a fact, and the cycle of technological innovation will be shorter. These changes will greatly affect production systems and market structures.

Third, rapid globalization implies the advent of an age of uncertainty. Successful economic strategies in industrial societies are not necessarily applicable to the new society of globalization and information. Additionally, rapidly increasing integration and a shorter technological innovation cycle would make the search for an appropriate industrial structure for this new society somewhat fruitless.

2. Industrial Policies

2.1 Philosophical Background

It has been generally accepted that the critical factor behind Asia’s (including Korea) rapid growth was ‘Asian
Values.’ However, at the onset of the crisis in 1997, these same ‘Asian Values’ were blamed for causing the crisis. Asian Values are understood as based on Confucianism. Confucianism stresses the fulfillment of human morality through learning and training. It emphasizes that elite groups, who are supposed to have moral superiority, should lead the morally lacking general public using principles and rules that they have chosen themselves. Adherents to Asian Values insist that the government and the elite group of officials should manage the economy. Some political leaders in East Asian countries have supported the maintenance of Asian Values. Their argument is that the government and its officials have been capable of generating rapid economic growth and therefore future prosperity should depend on the government. However, it seems as if political leaders make reference to Confucian Asian Values mainly to justify their almost authoritarian political systems.\(^{19}\)

Moreover, ‘Asian values,’ as used by political leaders and scholars, are taken mostly from Confucianism and therefore can mislead people into thinking that it is the only value system in Asia. In traditional Asian philosophy, there exists another school of thought, Taoism, which has been widely ignored in the process of industrialization. Taoism is skeptical about confining people within specific moral values and

---

\(^{19}\) Lim (1999) discussed the Asian Values debate in a more philosophical context. His main point is that (i) Confucianism is not inherently conducive to economic development, and actually contains many elements that are hostile to capitalism; and (ii) Asia’s crisis has more to do with the economic logic of Asia’s development than defective elements in the Asian Value system.

---

74 Korean Chaebol in Transition : Road Ahead and Agenda
an artificial order. It emphasizes the spontaneity and the accommodation to being natural. The central theme of Taoism is ‘being natural without coercion.’

“Give up the desire to be sage and throw away intellectuality, then the payoffs to the people will be much [ ]. Give up the desire to master perfect virtue and throw away the arrogance to be just, then the welfare of the people will be greatly enhanced. Give up the desire to be ingenious and throw away cleverness, then there will be nothing to steal…”

In applying Confucianism and Taoism to the economic context, Confucianism will emphasize government-led economic management while Taoism tends to stress the importance of natural and spontaneous market order.

Government-led economic management based on Confucian Asian Values may have contributed to the growth of East Asian economies. However, emphasis on the leading role of the government and its officials resulted, in general, in more regulations and restrictions on economic activity than in Western countries. In addition, emphasis on the elite group as a leading social force resulted in non-transparent governance relying on government arbitrary and discretionary decisions rather than the rule of law.

Due to the complexity and diversity of the real world

20) Lao-tse, Scriptures on Morality

I. Industrial Policies and the Chaebol 75
economy, governments will come across great difficulties in playing the role of an omnipotent and objective economic system manager. To cope with the changing economic environment, it will be wiser to follow the spontaneous market order and principles of competition rather than artificially managing the economy.

In the widely open world economy ruled according to global standards, a new paradigm of economic management should be presented. The economy is a system in which diverse agents interact with each other. It rises above artificial manipulation. The government, recognizing the complexity and diversity of the economy, should adapt to its nature. The economy is not a system that can operate by control. It is a system in which continual search and evolution take place.

“The one who tries to possess the world in a forced way will lose it. The world is a mysterious thing that cannot be controlled in an artificial way. The one acting contrary to being natural will fail and the one trying to hold with force will lose…”

Taoism in economic sense is similar to neoliberalism. Hayek, the leader of the Austrian School and of neoliberalism, stresses the spontaneous market order and competition as a discovery process rather than government intervention

21) Lao-tse, Scriptures on Morality

76 Korean Chaebol in Transition : Road Ahead and Agenda
Governments should nurture the economy by providing proper surroundings for market mechanisms to operate.

“We are only beginning to understand on how subtle a communication system the function of an advanced industrial society is based – a communication system which we call the market and which turns out to be a more efficient mechanism for digesting dispersed information than any that man has deliberately designed. If man is not to do more harm than good in his efforts to improve the social order, he will have to learn that in this, as in all other fields where essential complexity of an organized kind prevails, he cannot acquire the full knowledge which would make mastery of the events possible. He will therefore have to use what knowledge he can achieve, not to shape the results as the craftsman shape his handiwork, but rather to cultivate a growth by providing the appropriate environment, in the manner in which the gardener does this for his plants.”


2.2 Direction of New Industrial Policies

Due to the rapid pace of globalization and the adoption of global standards, governments’ ability to effectively intervene in the economy is declining rapidly. What should be the


1. Industrial Policies and the Chaebol 77
direction of industrial policy in this environment?

Before the crisis, a group of economists called ‘revisionists’ suggested that the implementation of an industrial policy similar to the ones adopted by successful East Asian economies such as Japan, Taiwan, and Korea would be a good strategy. The tendency was even more conspicuous when discussing the possible policy responses to so-called “unlimited competition” resulting from globalization. An increasingly common view seems to be that the government should help firms compete successfully in the international market and that it should intervene, to a large extent, in adjusting the industrial structure to the globalized competitive environment.

This paper’s implications are diametrically opposed to the revisionists’ industrial policy proposal. Above all, globalization is basically a diversified and sometimes conflicting phenomenon that has different economic implications depending on the context.23) Therefore, it is especially difficult for a government to design a particular industrial structure that is supposed to be optimal for its economy. In this sense, the economists’ search for an alternative industrial organization will not yield any definitive, single structure of industrial organization.

For example, the Fordist mass production system was thought of as the optimal production system in the early 20th century. However, changes in the market environment, such

23) Oman (1993) identifies the globalization phenomenon as not only a market extension but also a mixture of market deregulation, the spread of new information technologies, the intermeshing of financial markets and the innovation of industrial and production systems.

78 Korean Chaebol in Transition : Road Ahead and Agenda
as demand diversification and technological flexibility supported by microelectronics, called for a more flexible production system. As a result, from the late 1970s the German and Japanese lean-and-flexible production systems (Just-in-Time system of Toyota Motors is a typical example) emerged and seemed to have surpassed the Fordist mass production system. But in the late 1980s and 1990s, the German and Japanese systems were in turn being challenged by new American systems such as the self-managed team or self-directed work team systems. Therefore, instead of adopting an active interventionist industrial policy that requires a tremendous volume of information and is not guaranteed to produce the correct solutions, an effective response to globalization may be to let the market order prevail in discovering an optimal business and industrial structure.\(^\text{24}\) This entails allowing the private sector maximum freedom to make structural adjustments in response to the globalization of market competition. The role of the government should be confined to preserving the spontaneity and endogeneity of the market order and to cultivating a better economic environment for its smooth operation. The government should determine exogenous variables for the market order while the determination of endogenous variables should be left to market competition.

\(^{24}\) Jwa (1997) presents theoretical and empirical analysis about spontaneous evolutions of industrial organizations. It shows that, due to globalization and the progress of information technology, industrial policies based on Hayekian competition should be accepted whatsoever.
References


KERI, “Policies for Corporate Restructuring: Review and
Lao-tse, *Scriptures on Morality*.
Lim, P., “The Asian Values Debate Revisited: Positive and
Yoo, J., “Effects of Heavy and Chemical Industrialization Policy in 1970’s on Capital Efficiency and Export
Competitioneness,” *Research on Korea Development*, vol.13, No.1, Korea Development Institute, 1991.


Ha-Joon Chang and Hong-Jae Park
I. Introduction

The financial crisis of 1997 has brought about a sea of change in the prevailing view on the Korean economy. Once hailed as a miracle, now the country is described as an inefficient, corrupt economy full of obsolete and irrational institutional arrangements. Nowhere is this about-turn more apparent than in the analysis of the Korean big businesses, or the chaebol, and their relationship with the government. Once seen as highly effective, if somewhat idiosyncratic, protagonists of the country’s impressive industrial modernization drive, the chaebol are now regarded as pathological business organizations that are responsible for the downfall of the economy. Likewise, the cooperative government-chaebol relationship, which was previously regarded by most as one important ingredient in the country’s economic success, is now condemned as a corrupt league that destroyed economic rationality and efficiency in the country.

The prevalent view these days has it that the chaebol made excessive investments that caused the 1997 financial crisis in the country because they were controlled by family patriarchs who were more interested in empire-building than in profitability and efficiency. At the same time, it is argued that the belief that they were “too big to fail,” and therefore that they would be rescued by the government, and the sometimes corrupt links with the government led the chaebol to disregard efficiency even more. The chaebol owners maintained their control over vast conglomerates, the argument
goes, by eschewing stock issues and relying on debt financing to absurd degrees, helped by the practice of intra-group cross-debt guarantees. According to this view, the unsustainable level of debt of the chaebol is the direct cause of the country’s 1997 financial crisis, and the pathological corporate governance system and the corrupt government-chaebol relationship, which encouraged such high debt build-up, the underlying cause.

Given this diagnosis, the IMF and the current Korean government have paid enormous attention to reforming the chaebol and also extricating the government from the business of corporate governance through radical deregulation. The reform package, at least on paper, is far-reaching and includes everything short of the forceful disbanding and ownership transfer that the large German industrial concerns and the Japanese zaibatsu were subject to immediately after the Second World War.

The main purposes of this reform agenda may be summarized as the following four elements. First of all, it aims to reduce the chaebol’s reliance on debt financing by encouraging asset sales, new share issues, and the elimination of mutual loan guarantees. For this, the chaebol were pressured by the current government through their main lending banks to bring down their debt-equity ratio from over 400% to 200% by the end of 1999 and to all but eliminate intra-group mutual loan guarantees by 2000.

Secondly, the reforms seek to induce the chaebol into concentrating on core competencies by putting pressure on
them to sell off non-core subsidiaries, which is also regarded as a good way of reducing debt. Thirdly, the reforms have strengthened the powers of minority shareholders and outside directors in the hope that this will make the chaebol pay more attention to profitability. And fourthly, the strengthening of market discipline, especially through further financial liberalization, is seen as a way not only to increase the efficiency of the chaebol but also to sever the corrupt links between government and big businesses that have characterized Korea’s political economy (as this is thought to reduce the very ability of government officials to disburse favours).

In this paper, we critically review the above-mentioned reform agenda. We find that these views are theoretically ill-informed and empirically not well-founded and therefore are unlikely to provide good guidelines for the future of the Korean political and economic systems. We argue that the current reforms have not only failed to correct many of the very problems that they are meant to address, but that they are also unable to address what we regard as the real problems of the chaebol system – the tendency to over-invest and the abuse of power. In relation to the current reform agenda’s approach to the reform of the government-chaebol relationship, we argue that what is necessary is the refinement of methods and the democratization of the state intervention process, and not a wholesale disengagement by the government in industrial and corporate matters, which is neither likely nor desirable.
II. Characterizing the *Chaebol*

The currently popular view sees the *chaebol* as an abnormal type of business organization, which is “pathological” in its ownership and financing, excessively diversified, and highly inefficient. Portraying the *chaebol* in this light, however, is based on the implicit consensus among mainstream researchers that the Anglo-American, especially American, type of firm organization is the standard against which the “normality” of other types of firm organization should be judged. In other words, Korean firms, like those from other non-Anglo-American countries, have been usually “viewed through a looking glass that has an American frame” (Cottrell, 1997, p.2).

This is somewhat understandable, given that the US is where modern corporations emerged first, but this does not make any less acceptable the prejudice against non-Anglo-American-style firms, especially the ones from developing countries – or what we propose to call the “Third World version” of Williamson’s “inhospitality tradition.”

So the first question to ask is whether normality can be defined with reference to the institutional norms prevailing in the Anglo-American countries. When we think of it, there are more countries in the world whose institutional features do not conform to the Anglo-American norm than the ones

---


104 *Korean Chaebol in Transition: Road Ahead and Agenda*
whose institutional features do. If this is the case, why should the Anglo-American institutions become the norm? Indeed, economic historians have shown us that international differences in firm organization have been an essential feature in the development of capitalism during the last century or so (Chandler, 1990).

Moreover, to call an organizational form abnormal can be misleading when what is normal is not defined clearly, which is the case in the currently prevailing discourse. For example, what counts as an excessive degree of diversification for a corporate group? Where have figures such as 200% been plucked out of as the norm (or even the “necessary minimum,” according to some people in the current government) for a corporation’s debt-equity ratio? Without clear answers to these kinds of questions, the targets of chaebol reform will remain elusive at best and misleading at worst.

While directly confronting these fundamental methodological questions may be beyond the scope of our paper, we will try to address them indirectly in this section by empirically examining whether the allegedly pathological features of the Korean chaebol are indeed totally off the international norms and driven by an irrational and corrupt institutional structure, as conventional wisdom has it.

1. Low profitability

The feature of the chaebol that is regarded as the clearest sign of their pathological nature is their low profitability.
Indeed, by some accounts, Korea boasts one of the lowest corporate profitability level in the world. And this is cited by many as proof that Korean firms, and the chaebol as their representatives, are inefficient firms that have survived only because of governmental support and/or insider financing (in the case of the chaebol).

The first thing to note when discussing profitability as a measure of enterprise performance is that it is not necessarily a good indicator of a firm’s social contribution (e.g., Blaine, 1993; Chang and Singh, 1993). As clearly revealed by the literature on social cost-benefit analysis, as a financial variable, it is affected by various imperfections in markets, which means that it may not correctly measure an enterprise’s true efficiency (if exactly defining and measuring such a thing is possible at all). Profitability figures also do not address distributional concerns and other social objectives that one may want the firms to contribute to.  

Most importantly, low profitability in the case of Korean firms (and Japanese firms before them) should be seen as a result of aggressive investments that were necessary for achieving greater international competitiveness, which may in the end bring more benefits to society (Blaine, 1993; Singh, 1992 and 1998). At the same time, through its impact on investor expectations (i.e., the lowering of expected pro-

2) It may be argued that firms should not worry about anything other than making profits, as society can tax the profits and use the revenue for other non-efficiency purposes, if it wants. This, of course, is an evasion, as there are serious political and administrative obstacles to raising taxes. See Chang and Singh (1993) for a further discussion on this point.

106 Korean Chaebol in Transition : Road Ahead and Agenda
fitability), low profitability may increase investments, which are vital for increasing employment in the short run and the growth potential of the economy in the long run.

Even if we agreed that profitability is “the” best measure of a firm’s social contribution, it is difficult to decide which measure of profitability should be used. To put it simply, there is no agreement on what should be the numerator (e.g., gross income, net income, etc.) or on what should be the denominator (e.g., sales, assets, equity, etc.) in the calculation of profitability. And needless to say, different measures yield different results. Together with many others (e.g., Blaine, 1993), we think that the best measure is given by the ratio of gross income (or operating income) to sales, according to which Korean firms tend to do quite well (see below), but others may not agree. We cannot settle this debate within this paper, but would like to mention our deep concern with many of the current discussions on chaebol profitability that are simply oblivious to this problem.

Moreover, comparing profitability across countries is notoriously difficult. Different countries have different accounting standards and therefore a direct comparison of profitability figures, even when it comes to comparing the

3) We believe that gross income is better than net income, the most serious alternative, as the numerator in the profitability formula because the latter is net of factors that have relatively little to do with intrinsic enterprise efficiency, such as interest payments (subject to changes in monetary policy and macroeconomic conditions) and proceeds from the sale of assets (subject to valuation problems and even financial engineering to evade taxes). We believe that sales is better than assets as the denominator, because the latter is notoriously subject to definitional and measurement problems.
apparently same measure (e.g., return on assets), always carries some danger (including our own exercise below). Some, for example, claim that Japanese corporate profitability has been under-estimated because of the differences in accounting methods from those used in other, especially Anglo-American, countries (e.g., Blaine, 1993).

It is also doubtful whether we can explain a financial crisis through corporate profitability. For example, according to a study by Claessens et al. (1998), Thailand and Indonesia had the highest (by a huge margin) and the 3rd highest returns on assets among the sample of 46 countries from all over the world (2nd was the Philippines, a semi-crisis country), and Malaysia ranked a respectable 8th. However, according to this measure, Korea ranked 44th (p.5, Figure 1). So if there were any simple link between corporate profitability and corporate vulnerability (and thus a financial crisis), the Southeast Asian economies would have been regarded as very unlikely to go through an economic crisis, while Korea was an almost perfect example for proving such a link. So we need to take care in linking the observation that Korean companies had exceptionally low profitability (even if they did – see below) to the conclusion that this was a major cause of the crisis.

Bearing these things in mind, let us see whether Korean profitability has been indeed so pathologically low by international standards.

As we can see from Table 1, a salient feature of Korean firms, including the chaebol, in terms of their profit structure
is the big difference between gross profitability (operating income to sales) and net profitability (ordinary income to sales) due to high financial costs (as ordinary income is net of interest payments). The gross profitability of the Korean manufacturing firms during 1973-96 was 7.4% (similar to that in Japan during its high growth period, i.e., 1955-73, as we can see from the Table). However, their net profitability was only 2.8% due to high financial costs (lower than the Japanese figure during its high growth period). This profitability structure is a consequence of the investment-led growth-maximization strategy that the Korean and Japanese firms pursued. The difference between the operating income and net profitability is caused by the high rate of investment financed by external borrowing.

<Table 1> Major Business Indicators of Korea and Japan (Manufacturing) (%)

<table>
<thead>
<tr>
<th></th>
<th>Korea (1973-96)</th>
<th>Japan (1955-73)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current growth rate of Sales</td>
<td>24.6</td>
<td>17.3</td>
</tr>
<tr>
<td>Operating income to Sales</td>
<td>7.4</td>
<td>7.2*</td>
</tr>
<tr>
<td>Financial expenses to Sales</td>
<td>5.5</td>
<td>3.4</td>
</tr>
<tr>
<td>Ordinary income to Sales</td>
<td>2.8</td>
<td>4.3</td>
</tr>
<tr>
<td>Debt ratio</td>
<td>338.4</td>
<td>320.7</td>
</tr>
</tbody>
</table>

* 1961-73

Definitions:
Operating Income = Gross profit – Selling & Administrative Expenses.
Financial Expenses = Interest and Discount Expenses.
Ordinary Income = Operating Income + Net Non-Operating Income.

Sources: The Bank of Korea (BOK), Financial Statement Analysis, yearly.
Bureau of Statistics, Japan Statistical Yearbook, yearly.
While we do not have data that we can use for systematically comparing and finding out whether Korean corporate profitability was exceptionally low by international standards, Table 2 gives us some insights. Table 2’s limitations are clear (very limited sample size, particular types of profitability measures, point observations for a single year, etc.), but it shows that, at least in 1995, while the net profitability of Korean firms was the lowest among the 4 countries in the sample, their gross profitability was higher than that of their counterparts in Japan and not much lower than those in the USA and Taiwan. The data from Claessens et al. (1998) also confirms this observation (p.7, Table 3). It shows that the operational margin (which is similar but different from the notion of net profitability4) among Korean firms during 1988-96, at 19.6%, was higher than that in the USA (14.4%) and Germany (14.6%), although it was lower than that in 5 of the 8 other East Asian countries for which figures were available (Japan, Indonesia, Taiwan, the Philippines, and Thailand; Hong Kong, Singapore, and Malaysia are the countries that had lower figures).

Thus seen, there is no clear evidence that Korean corporate profitability is exceptionally low by international standards. According to some measures, it had very low

4) The notion of operational margin used by Claessens et al. is defined as the difference between sales and the costs of goods sold as a share of sales. This is slightly different from the notion of “gross profitability” that we use, as it does not subtract selling and administrative expenses from the numerator. We think our measure is somewhat superior because the measure used by Claessens et al., by not subtracting the selling and administrative expenses, does not fully reflect the managerial efficiency of the firm.
profitability by international standards, but according to others, it is not the case at all. Especially in terms of the measures that we think are better (such as gross profitability or operational margin used by Claessens et al.), Korean firms do not have low profitability by international standards and have even done as well as, or even better than, US firms, which they are constantly asked to emulate.

<Table 2> Structure of Profit in Manufacturing Corporations in Korea, Japan, the USA, and Taiwan (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income to Sales</td>
<td>6.5</td>
<td>7.7</td>
<td>3.3</td>
<td>7.3</td>
</tr>
<tr>
<td>Ordinary income to Sales</td>
<td>1.0</td>
<td>7.9</td>
<td>2.9</td>
<td>5.1</td>
</tr>
<tr>
<td>Financial expenses to Sales</td>
<td>5.8</td>
<td>n.a.</td>
<td>1.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Total borrowing to total assets</td>
<td>47.7</td>
<td>26.4</td>
<td>34.8</td>
<td>26.2</td>
</tr>
</tbody>
</table>


2. High Financial Leverage

The high financial leverage of the chaebol has been widely blamed as the primary cause of Korea’s financial crisis of 1997. According to this view, high financial leverage is considered to be the product of irrational empire-building efforts by the chaebol patriarchs who disregard profitability, and therefore is the ultimate symptom of a pathological corporate governance system. Is this view justified?
First of all, it must be pointed out that there is a well-known and still-inconclusive debate in financial economics on the relative merits of equity financing versus debt financing (Harris and Raviv, 1991; Brennan, 1995). It is needless to say that there is, therefore, no such thing as an optimal level of corporate leverage.

Moreover, the debt-equity ratio of Korean corporations (historically between 300% and 350%, depending on the phase of the business cycle) is not exceptionally high by international standards. A World Bank study covering the period between 1980 and 1991 (Demigruc-Kunt and Maksimovic, 1996) shows that, at 366%, the average debt-equity ratio for Korean corporations was similar to that of Japan (369%), France (361%), and Italy (307%). Rather surprisingly, it was much lower than what is the norm in Scandinavia, that is, around 500%-538% in Norway, 555% in Sweden, and 492% in Finland (see Table 3).  

---

5) Of course, given the differences in the stages of growth that they are at, and consequently in their financing capabilities and requirements, it seems inappropriate to compare the capital structure of the Korean firms with those of counterparts in the more advanced countries during the same periods. A more appropriate comparison between the two may be to compare the Korean figures of the 1980s or 1990s with the 1960s or 1970s, if not earlier, figures of the more advanced countries. In this regard, a more detailed comparison with Japan may be useful. Japanese firms may now have an average debt-equity ratio of just over 200%, but as we see from Table 3, this figure was basically at the same level as in Korea throughout the 1980s (369% vs. 366%), and in the 1970s, it was around 500%.

112 Korean Chaebol in Transition : Road Ahead and Agenda
### Table 3: Capital Structure of Firms in Selected Countries (1980-91)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Debt ratio</th>
<th>Long-term debt to total equity</th>
<th>Short-term debt to total equity</th>
<th>Depreciation to total assets</th>
<th>Dividend to total assets</th>
<th>Earnings to total assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1.248</td>
<td>0.563</td>
<td>0.653</td>
<td>0.033</td>
<td>0.025</td>
<td>0.064</td>
</tr>
<tr>
<td>Austria</td>
<td>2.696</td>
<td>1.121</td>
<td>1.495</td>
<td>0.051</td>
<td>0.017</td>
<td>0.075</td>
</tr>
<tr>
<td>Belgium</td>
<td>2.023</td>
<td>0.764</td>
<td>1.259</td>
<td>0.039</td>
<td>0.022</td>
<td>0.092</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.560</td>
<td>0.139</td>
<td>0.421</td>
<td>-</td>
<td>0.014</td>
<td>0.057</td>
</tr>
<tr>
<td>Canada</td>
<td>1.600</td>
<td>0.990</td>
<td>0.539</td>
<td>0.045</td>
<td>0.007</td>
<td>0.064</td>
</tr>
<tr>
<td>Finland</td>
<td>4.920</td>
<td>3.094</td>
<td>1.856</td>
<td>0.042</td>
<td>0.014</td>
<td>0.077</td>
</tr>
<tr>
<td>France</td>
<td>3.613</td>
<td>1.417</td>
<td>2.108</td>
<td>0.043</td>
<td>0.013</td>
<td>0.094</td>
</tr>
<tr>
<td>Germany</td>
<td>2.732</td>
<td>1.479</td>
<td>1.188</td>
<td>0.070</td>
<td>0.057</td>
<td>0.087</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>1.322</td>
<td>0.309</td>
<td>0.967</td>
<td>0.017</td>
<td>0.019</td>
<td>0.121</td>
</tr>
<tr>
<td>India</td>
<td>2.700</td>
<td>0.763</td>
<td>1.937</td>
<td>0.038</td>
<td>0.014</td>
<td>0.132</td>
</tr>
<tr>
<td>Italy</td>
<td>3.068</td>
<td>1.114</td>
<td>1.954</td>
<td>0.041</td>
<td>0.070</td>
<td>0.080</td>
</tr>
<tr>
<td>Japan</td>
<td>3.688</td>
<td>0.938</td>
<td>2.726</td>
<td>0.026</td>
<td>0.007</td>
<td>0.067</td>
</tr>
<tr>
<td>Jordan</td>
<td>1.181</td>
<td>0.266</td>
<td>0.915</td>
<td>-</td>
<td>0.033</td>
<td>0.073</td>
</tr>
<tr>
<td>Korea</td>
<td>3.662</td>
<td>1.057</td>
<td>2.390</td>
<td>0.053</td>
<td>0.008</td>
<td>0.100</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.935</td>
<td>0.284</td>
<td>0.639</td>
<td>0.021</td>
<td>0.026</td>
<td>0.087</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.817</td>
<td>0.375</td>
<td>0.442</td>
<td>-</td>
<td>-</td>
<td>0.076</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2.156</td>
<td>0.710</td>
<td>1.297</td>
<td>0.043</td>
<td>0.020</td>
<td>0.094</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1.527</td>
<td>0.752</td>
<td>0.776</td>
<td>0.030</td>
<td>0.025</td>
<td>0.106</td>
</tr>
<tr>
<td>Norway</td>
<td>5.375</td>
<td>3.495</td>
<td>1.880</td>
<td>0.049</td>
<td>0.009</td>
<td>0.092</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2.953</td>
<td>0.595</td>
<td>2.358</td>
<td>0.038</td>
<td>0.028</td>
<td>0.115</td>
</tr>
<tr>
<td>Singapore</td>
<td>1.232</td>
<td>0.491</td>
<td>0.718</td>
<td>0.022</td>
<td>0.018</td>
<td>0.077</td>
</tr>
<tr>
<td>South Africa</td>
<td>1.115</td>
<td>0.597</td>
<td>0.518</td>
<td>0.013</td>
<td>0.062</td>
<td>0.206</td>
</tr>
<tr>
<td>Spain</td>
<td>2.746</td>
<td>1.086</td>
<td>1.649</td>
<td>0.040</td>
<td>0.016</td>
<td>0.095</td>
</tr>
<tr>
<td>Sweden</td>
<td>5.552</td>
<td>2.879</td>
<td>2.321</td>
<td>0.036</td>
<td>0.011</td>
<td>0.100</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.750</td>
<td>0.878</td>
<td>0.872</td>
<td>0.043</td>
<td>0.016</td>
<td>0.073</td>
</tr>
<tr>
<td>Thailand</td>
<td>2.215</td>
<td>0.518</td>
<td>1.769</td>
<td>0.030</td>
<td>0.029</td>
<td>0.129</td>
</tr>
<tr>
<td>Turkey</td>
<td>1.996</td>
<td>1.511</td>
<td>1.511</td>
<td>-</td>
<td>0.068</td>
<td>0.239</td>
</tr>
<tr>
<td>UK</td>
<td>1.480</td>
<td>1.065</td>
<td>1.065</td>
<td>0.032</td>
<td>0.025</td>
<td>0.025</td>
</tr>
<tr>
<td>USA</td>
<td>1.791</td>
<td>1.054</td>
<td>0.679</td>
<td>0.045</td>
<td>0.016</td>
<td>0.016</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.801</td>
<td>0.187</td>
<td>0.615</td>
<td>0.031</td>
<td>0.028</td>
<td>0.028</td>
</tr>
</tbody>
</table>

Source: Calculated from the International Finance Corporation’s Corporate Finance Data by Demigruc-Kunt and Maksimovic (1996, p.354)

What distinguishes Korea from Japan is that high corporate leverage in Korea was closely related to a chronic
capital shortage – manifested in balance of payments deficits. Korea was the only one amongst the North East Asian “miracle” economies to have suffered from a serious capital shortage. As can be seen from Table 4, Japan never had a savings shortage since the early 1960s, and even Taiwan basically stopped experiencing such a situation from the early 1970s. In contrast, Korea had a staggering capital shortage until the early 1970s, which lessened over time but has continued right up to the 1997 crisis, except for the 1986-88 period.

<Table 4> Capital Shortage in Korea, Japan, and Taiwan (1960-73) (Billions of Korean Won, billions of Japanese Yen, and millions of Taiwanese New Taiwan Dollar)

<table>
<thead>
<tr>
<th>Year</th>
<th>Korea</th>
<th></th>
<th>Japan</th>
<th></th>
<th>Taiwan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GDI (A)</td>
<td>GDS (B)</td>
<td>B/A (%)</td>
<td>GDI (A)</td>
<td>GDS (B)</td>
</tr>
<tr>
<td>1960</td>
<td>26.8</td>
<td>3.5</td>
<td>13.1</td>
<td>5,233.0</td>
<td>5,294.0</td>
</tr>
<tr>
<td>1965</td>
<td>225.5</td>
<td>122.5</td>
<td>54.3</td>
<td>10,543.0</td>
<td>10,910.0</td>
</tr>
<tr>
<td>1970</td>
<td>704.7</td>
<td>423.2</td>
<td>60.1</td>
<td>28,055.0</td>
<td>28,839.0</td>
</tr>
<tr>
<td>1971</td>
<td>805.4</td>
<td>458.2</td>
<td>56.9</td>
<td>28,718.0</td>
<td>30,813.0</td>
</tr>
<tr>
<td>1972</td>
<td>805.5</td>
<td>577.3</td>
<td>71.7</td>
<td>32,712.0</td>
<td>34,581.0</td>
</tr>
<tr>
<td>1973</td>
<td>1,292.3</td>
<td>1,089.7</td>
<td>84.3</td>
<td>44,582.0</td>
<td>45,099.0</td>
</tr>
<tr>
<td>1960-1973</td>
<td>-</td>
<td>-</td>
<td>63.9</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: GDI=Gross domestic investments; GDS=Gross national savings

6) This is, of course, not to say that high corporate leverage happens only under capital shortage. The best counter-example is Japan, where corporate leverage had been very high until recently despite the fact that the country has never suffered from a capital shortage since the 1960s.
The heavy reliance on foreign capital made Korean firms vulnerable to the instability of international financial markets, which led to the rapid accumulation of debts when they were facing difficulties. Korea has twice experienced a structural upward shift in its corporate debt-equity ratio as seen from Figure 1. The debt-equity ratio surged abruptly after the international financial turmoil following the collapse of the Bretton Woods system in the early 1970s, and following the debt crisis in Latin America in the early 1980s. In striking contrast, this kind of fluctuation in debt-equity ratio was not observed in Japan, which also had high corporate leverage during its high growth period, as can be seen from Figure 2.  

7) We compare the debt-equity ratios of Korea and Japan over different periods because high leverage in Japanese corporations ended with the end of the “high investment - high growth” regime of the mid-1970s. Given that in this comparison we are trying to isolate the consequences of the differential degrees of dependence on foreign debt of Korean and Japanese corporations on the status of their overall debt-equity ratios, it makes sense to compare Korean corporations with Japanese corporations only during the high growth period, rather than during the whole period.

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 115
It is interesting to ask at this point why the high leverage ratios did not have a negative effect on investment despite the conventional wisdom that, as their leverage rises, firms respond by reducing investment rather than reducing borrowings (Lavoie, 1995, p.166).

The socialization of risk through governmental industrial and financial policies, which encouraged risk-taking beyond the scales that can be borne by individual firms (or even individual chaebol), provides a partial answer to this question (more on this later in section 3), but more important was the fact that financial income was recycled back to the corporate sector through various government control mechanisms (see Akyuz et al., 1998).\(^8\) Strict capital controls

---

\(^8\) It was the main banks that performed this recycling function in Japan. The institutional difference between the two countries is related to the capital shortage in the Korean economy that led to dependence on foreign capital, a stable supply of which required government repayment guarantees and consequently a much stronger government say in corporate decision-making.
kept financial income inside the domestic financial sector, and control on luxury consumption ensured that only a small proportion of it was consumed. It was then ploughed back into the corporate sector through government controls over bank loans. These institutional arrangements made it possible for Korean firms to maintain a high rate of investment despite high financial leverage. And it was the breakdown of this recycling mechanism, rather than high leverage itself, that was behind the 1997 financial crisis (see Chang et al., 1998, for further details).

3. Abnormal Ownership Structure

It is frequently argued that the chaebol have an abnormally high share of family ownership because they have been reluctant to turn to the stock market for fear, on the part of the owner’s family, of losing corporate control (Yoo, 1995; Yoo and Lim, 1998).

What is overlooked by those who hold this view is that the chaebol have not been afraid of going to the stock market. As we shall see in the next section, they have actually relied quite heavily on stock financing. As a result, the proportion of family ownership has been on the decline over time. Table 5 shows that for the top 30 chaebol, family ownership declined from 17.2% in 1983 to just above 10% by the mid-1990s (an average of 10.2% during 1993-96). For the top 5 chaebol, the decline was even more marked. It came down from 15.6% in 1987 (the 1983 figure is not available, but
must have been higher than the 1987 figure, given the trend) to 8.6% in 1996. If this is the case, it seems difficult to maintain that the desire to maintain family control has kept the chaebol away from the stock market.

**<Table 5> Changes in the Share of Insider Ownership of the Chaebol (%)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 30</td>
<td>57.2</td>
<td>56.2</td>
<td>46.2</td>
<td>45.4</td>
<td>46.9</td>
<td>46.1</td>
<td>43.4</td>
<td>42.7</td>
<td>43.3</td>
<td>44.1</td>
</tr>
<tr>
<td>Family</td>
<td>17.2</td>
<td>15.8</td>
<td>14.7</td>
<td>13.7</td>
<td>13.9</td>
<td>12.6</td>
<td>10.3</td>
<td>9.7</td>
<td>10.5</td>
<td>10.3</td>
</tr>
<tr>
<td>Subsidiaries</td>
<td>40.0</td>
<td>40.4</td>
<td>32.5</td>
<td>31.7</td>
<td>33.0</td>
<td>33.5</td>
<td>33.1</td>
<td>33.0</td>
<td>33.8</td>
<td>33.8</td>
</tr>
<tr>
<td>Top 5</td>
<td>-</td>
<td>60.3</td>
<td>49.4</td>
<td>49.6</td>
<td>51.6</td>
<td>51.9</td>
<td>49.0</td>
<td>47.5</td>
<td>48.1</td>
<td>45.2</td>
</tr>
<tr>
<td>Family</td>
<td>-</td>
<td>15.6</td>
<td>13.7</td>
<td>13.3</td>
<td>13.2</td>
<td>13.3</td>
<td>11.8</td>
<td>12.5</td>
<td>9.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Subsidiaries</td>
<td>-</td>
<td>44.7</td>
<td>35.7</td>
<td>36.3</td>
<td>38.4</td>
<td>38.6</td>
<td>37.2</td>
<td>35.0</td>
<td>38.7</td>
<td>36.6</td>
</tr>
<tr>
<td>Hyundai</td>
<td>81.4</td>
<td>79.9</td>
<td>-</td>
<td>60.2</td>
<td>67.8</td>
<td>65.7</td>
<td>57.8</td>
<td>61.3</td>
<td>60.4</td>
<td>56.2</td>
</tr>
<tr>
<td>Samsung</td>
<td>59.5</td>
<td>56.5</td>
<td>-</td>
<td>51.4</td>
<td>53.2</td>
<td>58.3</td>
<td>52.9</td>
<td>48.9</td>
<td>49.3</td>
<td>46.7</td>
</tr>
<tr>
<td>Daewoo</td>
<td>70.6</td>
<td>65.2</td>
<td>-</td>
<td>49.1</td>
<td>50.4</td>
<td>48.8</td>
<td>46.9</td>
<td>42.4</td>
<td>41.4</td>
<td>40.1</td>
</tr>
<tr>
<td>LG</td>
<td>30.2</td>
<td>41.5</td>
<td>-</td>
<td>35.2</td>
<td>38.3</td>
<td>39.7</td>
<td>38.8</td>
<td>37.7</td>
<td>39.7</td>
<td>38.3</td>
</tr>
</tbody>
</table>

Note: The figures for the top 30 and the top 5 chaebol are the weighted average of individual chaebol (according to the size of their capital base) in the respective grouping.

Sources: Korea Fair Trade Commission

Having said that, we must point out that the share of insider ownership of the Korean chaebol still remains high. 9) As we can see from Table 5, insider ownership for the top 30 chaebol did fall substantially from the 57.2% figure recorded in 1983, but it still remained at 43.4% in the mid-1990s (the average for 1993-96). In the case of the top 5 chaebol, it fell from 60.3% in 1987 down to 47.2% in the mid-1990s (the

9) What is interesting to note here is that, somewhat paradoxically, the use of inter-subsidiary holdings has had the effect of encouraging stock market financing, as this allowed the owning family of the chaebol to dilute family shareholding while maintaining corporate control.
1993-96 average).

What is important to note is that, after the recent crisis, insider ownership rose back again to 50.6% (as of 1999), because of the marked increase in the share of inter-subsidiary holdings, which rose from 33.2% in the mid-1990s (the average for 1993-96) to 44.1% in 1999 (KFTC, 1999). This sudden rise in insider ownership, especially in inter-subsidiary holdings, may seem paradoxical given that the recent corporate reform measures were supposed to rectify those “pathological” features of the chaebol, such as excessively high insider ownership, by liberalizing and opening-up the stock market. However, the fact is that the reform created even bigger incentives and opportunities for increased insider ownership. In terms of the incentives, the most important was the allowance of hostile take-overs, which made the chaebol increase insider ownership for defensive purposes. In terms of opportunities, the legalization of investment funds allowed the chaebol to increase their insider ownership by mobilizing large-scale funds, a disproportionate part of which they have invested in their own subsidiaries.

Now, one important question that we may ask is why the Korean chaebol have maintained such a high proportion of insider ownership. We know from the experience of post-war Japanese business groups that insider shareholding of 20% or so is enough for maintaining corporate control.\(^{10}\) This is

---

\(^{10}\) Inter-subsidiary shareholding was also widely used by the so-called “new” zaibatsus of pre-war Japan, such as Nissan and Nichitsu, which aggressively
even more puzzling when hostile take-overs were banned in Korea before the recent reform. Does it then confirm the widespread accusation that the chaebol are primarily interested in empire building rather than efficiency or profitability? We do not think so.

First of all, unlike in Japan, the most effective method of inter-subsidiary shareholding, namely, cross-shareholding, has been forbidden in Korea, and consequently there had to be a lot of “roundabout” shareholding, which increased the amount of inter-subsidiary shareholding necessary for the maintenance of corporate control.

However, a more important reason for the high share of inter-subsidiary shareholding in the chaebol is that it was seen not just, or even mainly, as a device to maintain corporate control. If this was the case, the Korean chaebol may also have ended up with a 20% or so level of insider ownership as we see in Japan. The main reason is that inter-subsidiary shareholding was also seen by the chaebol as a means to amplify their investment funds by creating fictitious capital on the basis of which new shares could be issued, and this gave them the incentive to pursue a much higher level of inter-subsidiary holding than what was necessary for the purpose of maintaining corporate control.  

---

invested in heavy and chemical industries in the early 1930s. They used inter-subsidiary shareholding as a means of mobilizing capital through stock financing (Shimotani, 1984). During the war, the old zaibatsus, such as Mitsui and Mitsubishi, also used cross-shareholding as a means of overcoming the limits of family ownership in mobilizing the funds necessary for their entry into heavy and chemical industries.  

11) By creating fictitious capital, inter-subsidiary shareholding can facilitate
4. Peculiar Mode of Financing

Closely related to the questions of capital and ownership structure is the question of the mode of financing. The most important argument in this vein is, as we have seen above, that the *chaebol* have avoided financing their operations through the stock market to an abnormal degree for fear of losing corporate control by the owning family. This peculiar mode of financing has, the argument goes, resulted in abnormally high financial leverage and abnormally high ownership concentration. We have already raised some problems with this argument with regard to the question of ownership in the previous section. Let us now look at this argument in relation to the mode of investment financing.

To begin with, it must be pointed out that there is no evidence that the dependence of the Korean *chaebol* on the stock financing. Suppose that a *chaebol* has four subsidiaries. Assume that one of the subsidiaries, A, has 2 billion Won of internal reserves and invests it in another subsidiary, B. B also reinvests this capital in C, and C in turn in D, and finally D in A. At the group-level, capital has increased to 10 billion Won in book value from only 2 billion Won. Of course, inasmuch as it remains an increase only in book value, it does not increase the volume of investment funds available. However, when subsidiaries issue new stock based on this fictitious capital, inter-subsidiary shareholdings can multiply the volume of investment funds. Suppose that every subsidiary issues new shares equivalent to an amount twice as high as inter-subsidiary investments and sells them in the stock market. New equity amounts to 20 billion Won, ten times the original capital, and the net increase in investment funds (net of the fictitious capital) is 8 billion Won. Needless to say, whether such increase in investment funds can be realized depends on the liquidity in the stock market. If liquidity is sufficient, a *chaebol* will have an incentive to raise low-cost investment funds by lowering the share of inter-subsidiary shareholding as much as it is consistent with maintaining corporate control.

---

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 121
stock market is lower than that of their counterparts in other countries. A number of recent studies have revealed that, together with the large corporations in other developing countries, large Korean firms, most of them chaebol subsidiaries, have actually relied more on equity financing than their counterparts in advanced countries, which rely mostly on retained earnings (see Mayer, 1998 and 1990; Corbett and Jenkinson, 1994; Singh, 1994 and 1995; Singh and Hamid, 1992).

Table 6 shows that until the early-1980s, Korean firms had relied very heavily on credit-based financing, bank-loans in particular, but since then market-based financing – bonds and stocks – have emerged as the dominant mode of corporate financing in Korea. As we can see from Table 6, the ratio of direct financing to total external financing, at 36% over the 1982-94 period and rising (it was 44.3% during 1992-94), was much higher than that in the USA (27.1%; 1993) and Japan (16.7%; 1994) in the 1990s (Kim and Suh, 1998, p.59).

Table 6 shows that the contribution of stock financing to investment funds in Korea remained at around 11-17% of total funds from the early 1960s on. This is an impressive figure, even compared with the one we find in the country with the most developed stock market, namely the USA, where the highest share of equity financing ever reached was 19% (in the 1930s), which included the issuance of equity for take-overs and therefore is not a net figure (Taggart, 1985). Moreover, in Table 7, we can see that the contribution
of stock to investment financing in Korea during the 1970s and the 1980s was, at 13.4% (1972-91) much higher than in Germany (2.3%), Japan (3.9%), the UK (7%), or the USA (-4.9%).

**<Table 6> Trends in Gross Financing of Non-Financial Korean Firms (Flow of Funds)**

* (%; Unweighted Annual Average)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal funds</strong></td>
<td>47.7</td>
<td>25.4</td>
<td>32.9</td>
<td>23.3</td>
<td>33.5</td>
<td>26.4</td>
<td>27.3</td>
</tr>
<tr>
<td><strong>External funds</strong></td>
<td>52.3</td>
<td>74.6</td>
<td>67.1</td>
<td>76.7</td>
<td>66.5</td>
<td>73.6</td>
<td>72.7</td>
</tr>
<tr>
<td><strong>Indirect financing</strong></td>
<td>(48.4)</td>
<td>(41.8)</td>
<td>(51.1)</td>
<td>(53.7)</td>
<td>(41.8)</td>
<td>(36.0)</td>
<td>(37.4)</td>
</tr>
<tr>
<td><strong>Banks</strong></td>
<td>17.5</td>
<td>24.5</td>
<td>23.0</td>
<td>25.0</td>
<td>15.0</td>
<td>12.5</td>
<td>11.8</td>
</tr>
<tr>
<td><strong>NBFIs</strong></td>
<td>7.8</td>
<td>6.7</td>
<td>11.3</td>
<td>16.2</td>
<td>12.8</td>
<td>14.0</td>
<td>14.5</td>
</tr>
<tr>
<td><strong>Direct financing</strong></td>
<td>(15.0)</td>
<td>(9.0)</td>
<td>(16.8)</td>
<td>(21.1)</td>
<td>(19.2)</td>
<td>(19.0)</td>
<td>(20.0)</td>
</tr>
<tr>
<td><strong>Bonds</strong></td>
<td>14.4</td>
<td>10.7</td>
<td>14.6</td>
<td>19.0</td>
<td>18.3</td>
<td>27.5</td>
<td>32.3</td>
</tr>
<tr>
<td><strong>CBs &amp; CPs</strong></td>
<td>0.6</td>
<td>0.5</td>
<td>1.7</td>
<td>3.2</td>
<td>7.3</td>
<td>10.7</td>
<td>12.9</td>
</tr>
<tr>
<td><strong>Stocks</strong></td>
<td>13.8</td>
<td>10.8</td>
<td>13.0</td>
<td>12.5</td>
<td>11.0</td>
<td>16.9</td>
<td>12.1</td>
</tr>
<tr>
<td><strong>Foreign borrowing</strong></td>
<td>(26.4)</td>
<td>(14.5)</td>
<td>(19.4)</td>
<td>(16.3)</td>
<td>(16.5)</td>
<td>(22.9)</td>
<td>(16.9)</td>
</tr>
<tr>
<td><strong>Trade credits &amp; Others</strong></td>
<td>11.0</td>
<td>27.0</td>
<td>17.8</td>
<td>11.7</td>
<td>1.3</td>
<td>2.3</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td>15.4</td>
<td>36.2</td>
<td>26.6</td>
<td>15.2</td>
<td>1.9</td>
<td>3.1</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>4.4</td>
<td>5.8</td>
<td>-0.2</td>
<td>0.6</td>
<td>16.6</td>
<td>14.9</td>
<td>11.0</td>
</tr>
<tr>
<td></td>
<td>(8.5)</td>
<td>(7.8)</td>
<td>(-0.3)</td>
<td>(0.8)</td>
<td>(24.9)</td>
<td>(20.2)</td>
<td>(15.1)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note: The figures in brackets represent the share of total external funds.

Sources: BOK, *Flow of Funds*, yearly.

Thus seen, there is no substance to the claim that the chaebol have avoided financing through the stock market.\(^{12}\)

---

\(^{12}\) Of course, the figures that we have used are not exclusively for chaebol subsidiaries, but given their weight in the corporate sector, they can be taken

---

2. *An Alternative Perspective on Government Policy towards the Chaebol in Korea* 123
They have large debts not because they eschewed stock financing, but only because they have found even these large sums raised in the stock market insufficient for the aggressive investment strategy that they have adopted with impressive results. As a result, the Korean stock market has been one of the most rapidly developing in recent periods; according to one World Bank study, Korea ranked 10th (in terms of stock market capitalization as a proportion of GDP and other indicators of stock market development) among the 30 countries surveyed, higher than several advanced countries such as Canada, France, Italy, and Sweden (Demigruc-Kunt and Maksimovic, 1996).

5. Excessive Diversification

as a rather close representation of the *chaebol’s* share.
The *chaebol* are often accused of having pursued “excessive” diversification – often described as the “octopus tentacles” strategy in the Korean media. This view has an apparent validity, given that many *chaebol* are engaged in a truly wide range of activities. However, looks can be deceptive.

The *chaebol*, especially the large ones, may own 50-60 subsidiaries operating in dozens of different industries, but most of their sales revenues are generated by a few core firms. Between 1988 and 1995, the 4 largest subsidiaries of the top 4 *chaebol* generated an average of 79.0% of their total sales. Especially in the case of Samsung, the four largest firms, two of which were in the same industry (electronics), alone accounted for about 90% of sales – a striking concentration (rather than diversification) of activities given the number of its subsidiaries (55 as of 1995). The same can be said of the smaller *chaebol*, with reliance on a smaller number of subsidiaries tending to increase as their size diminishes. For instance, in 1994, the *chaebol* ranked 6\(^{\text{th}}\) to 10\(^{\text{th}}\) generated 72.6% of their sales from their 4 largest subsidiaries. In the case of the *chaebol* that ranked 11\(^{\text{th}}\) to 20\(^{\text{th}}\), the 3 largest subsidiaries generated 72.1% of their sales, and in the case of the *chaebol* that ranked 21\(^{\text{st}}\) to 30\(^{\text{th}}\), as much as 72.3% of the sales were generated by their 2 largest subsidiaries.

These figures tell us that the *chaebol* are actually much more focused than what we normally think. In other words, the large number of subsidiaries and their presence in a wide

---

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 125
range of industries seems to have blinded people to the fact that most of the subsidiaries are insignificant.\footnote{This is not to deny that chaebol subsidiaries, however insignificant they may be in terms of their contribution to their own groups, may still be very significant in some industries they operate in.}

This is not to say that the chaebol have not pursued some unrelated diversification – they have pursued it quite a lot. However, their diversification strategy is better described as an alternating pursuit of related as well as unrelated diversification, rather than an indiscriminate strategy of unrelated diversification. Their strategy has been to enter into a range of industries at the same time (the unrelated diversification phase) and then consolidate these ventures by diversifying from them into related areas (the related diversification phase).\footnote{It should be noted that quite a few instances of unrelated diversification seem to be motivated by inheritance concerns. Unfortunately, we do not have enough data to tackle this issue in our paper, but its importance in the evolution of the chaebol should not be ignored.}

Related diversification was necessary for the continued development of the Korean chaebol because they chose to concentrate on heavy and chemical industries, whose success requires extensive backward and forward linkages.\footnote{It may be noted that this is what distinguishes the chaebol from the pre-war Japanese zaibatsu before they diversified into heavy and chemical industries (they originally concentrated in commercial and service activities). After their entry into heavy and chemical industries, the zaibatsu also underwent a period of related diversification. And it was through such process that the seeds of the post-war vertical keiretsus emerged (Shimotani, 1991).} In other words, they “had to integrate the production of many basic intermediate goods in order to secure necessary inputs as well as to exploit the economies of scale,” given “the
rapid pace of industrialization and the low starting level of capital and technology accumulation” (Chandler et al., 1997, p.20).

That consolidation through related diversification was necessary for the continued expansion of the *chaebol* is confirmed by the fact that there seems to be a strong positive correlation between related diversification and the size of the *chaebol*. Table 8 shows that the degree of related diversification (ER in the Table) of the top 5 *chaebol* was higher than that of any strata (grouped in 5, according to ranking) of the next 25 *chaebol* in the years 1984, 1987, and 1994, except for the group comprising the *chaebol* ranked from 16th to 20th in 1994.

<Table 8> Diversification of the Top 30 Chaebol in the Mining and Manufacturing Sectors (Entropy Diversification Index)

<table>
<thead>
<tr>
<th></th>
<th>1984</th>
<th>1987</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ET</td>
<td>ER</td>
<td>EB</td>
</tr>
<tr>
<td>1-5</td>
<td>1.455</td>
<td>0.616</td>
<td>0.839</td>
</tr>
<tr>
<td>6-10</td>
<td>1.263</td>
<td>0.444</td>
<td>0.819</td>
</tr>
<tr>
<td>11-15</td>
<td>0.981</td>
<td>0.325</td>
<td>0.656</td>
</tr>
<tr>
<td>16-20</td>
<td>0.825</td>
<td>0.330</td>
<td>0.495</td>
</tr>
<tr>
<td>21-25</td>
<td>0.836</td>
<td>0.231</td>
<td>0.605</td>
</tr>
<tr>
<td>26-30</td>
<td>0.486</td>
<td>0.105</td>
<td>0.381</td>
</tr>
<tr>
<td>Avg.</td>
<td>0.974</td>
<td>0.342</td>
<td>0.632</td>
</tr>
</tbody>
</table>

Notes: ET=Total diversification entropy index. ER=Related diversification entropy index. EB=Unrelated diversification entropy index. ET=EB+ΣSjiER; ER=ΣSji logSij; EB=ΣSj logSj (i=1, 2, …., n; KSIC two-digit industry; j=1, 2, …. , m; KSIC three-digit industry). S_i denotes the share of industry i in a chaebol’s total sales; S_j denotes the share of sub-industry j in a chaebol’s total sales; S_ij denotes

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 127
the share of sub-industry j in a chaebol’s total sales in industry i.
Source : Lee and Lee (1990, p.39)

If related diversification has a positive correlation with the size of the chaebol, does it mean that unrelated diversification is bad? Not necessarily. The benefits of unrelated diversification derive from what we propose to call economies of grouping, which refers to the benefits resulting from internalizing positive externalities within the bounds of the business group.

For example, grouping creates financial synergies which enable the chaebol to mobilize large-scale investment funds effectively in a short time required for investments in facilities, human resources, and organizational capability, which are essential for achieving economies of scale and scope (Chandler, 1990). Grouping also helps the chaebol firms invest more aggressively in new technologies by enabling them to share risk with their member firms. In addition, grouping stabilizes cash flow, which is especially important when many of the industries that the chaebol are engaged in are subject to large swings in demand (e.g., semiconductors, shipbuilding, automobiles). These are functions that are critical for latecomers such as the chaebol in achieving scale and scope, which are essential for competing with the first-movers in the world market.

To sum up, the chaebol have not pursued indiscriminate unrelated diversification but rather a strategy systematically alternating related and unrelated diversification, as consoli-
oration through related diversification was crucial in ensuring their continued growth. It is also important not to dismiss unrelated diversification out of hand, as it often confers certain important advantages that we call “economies of grouping.”

6. Over-investment and Abuse of Power: The Real Problems with the *Chaebol*

In the preceding sections, we have tried to show that the *chaebol* are not such a pathological form of corporate organization as it is often made out to be these days.

The *chaebol* may have relatively low profitability by international standards according to some measures, but it is by no means the case with all measures. Particularly, they may have low post-interest payment profitability due to high financial costs, but they are not operationally inefficient, as shown by the fact that their pre-interest payment profitability is not low by international standards.

The *chaebol* do have high leverage, but there are many advanced countries where corporate leverage is similar to or even higher than what we find in Korea. The usual argument that the *chaebol* have high debts because they have an excessive aversion to equity financing for fear of diluting family control is also disproved by the facts. In terms of net financing, the *chaebol* have relied on the stock market even more than firms in major advanced countries.

The *chaebol* may look excessively diversified, given that
they have dozens of subsidiaries across dozens of industries, but in fact a small number of core subsidiaries tend to generate an overwhelming share of sales. Moreover, many (though not all) smaller subsidiaries are products of vertical integration and related diversification, which facilitates continued growth. It is also important to note that unrelated diversification can provide a number of advantages.

To say that the chaebol are not pathological organizations, however, is not to say that the chaebol system has no shortcomings. It is a system with many problems.

However, most of the problems that the currently popular view identifies are false as we have seen. We believe that the real problems with the chaebol are, firstly, their strong tendency to over-invest, and, secondly, the abuse of their ever-growing economic and political power.

6.1 The Over-investment Problem

Periodic over-investment, or the phenomenon also known as excessive competition, has been a well-known feature of capitalism since its early days, but the chaebol, because of their exceptional ability to mobilize large funds and the fierce competition between them, have been particularly prone to it.

The logic here is that oligopolistic competition, which characterizes many modern industries with significant scale economies (that is, many of the industries in which the chaebol specialize), often leads to excess capacity unless there is a coordination of investment activities between the
competing firms. Excess capacity leads to price wars, which
damages the profits of the firms concerned and may force
them to scrap some of their assets. It sometimes also leads to
bankruptcy.

Now, asset scrapping and bankruptcies are a necessary and
costless way of rearranging property rights in a world with-
out transaction costs and “specific assets” (assets whose
value outside their current employment are low – the term
was coined by Oliver Williamson), but we are not living in
such a world. This means that the specific assets involved in
this process have to be scrapped or sold to alternative uses
that can create much less value, thus incurring a social cost.
Consequently, there is a case for coordinating competing
investments (for more detailed arguments, see Chang, 1994,
ch. 3, and 1999; also see Telser, 1987, and Amsden and
Singh, 1994).

Many mainstream economists have argued that over-
investment is a non-problem, especially for small economies
that are price-takers, because what cannot be consumed in
the domestic market can always be exported. However, this
is often not a viable option, at least in the short-run (and it is
the short run that counts here).

First of all, at least since the late 1970s, many industries
have been suffering from chronic over-capacity on the world
scale.\(^{16}\) Moreover, real-world markets are often segmented

\(^{16}\) Of course, this does not mean that new entries cannot or do not happen. East
Asian producers have been quite good at gaining market share in some
industries with chronic over-capacity problems. However, successful entry

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 131
along the lines of quality, design, and geography, and therefore the world market may not be as large as it seems, given that it takes time and resources to break into new market segments. In addition, some small economies have deliberately built capacity that is far beyond their domestic market and have become price-makers rather than price-takers, even on the world scale. Korea, which despite being a relatively small economy counts among the largest producers in the world in a number of industries (ships, memory chips, steel, etc.), is a good example.

It is for these reasons that the Korean government played an active role in controlling over-investment in many large-scale industries at least until the late 1980s, by coordinating entry, exit, and capacity expansion (for details regarding such practices, see Chang, 1993). And indeed the end to this practice during the 1990s, together with financial liberalization, led to over-investment in a number of key industries (notably semiconductors, steel, and automobiles) that contributed to the current crisis (see section 3 for more detail; also see Chang, 1998, and Chang et al., 1998).\(^{17}\)

---

17) Measuring the degree of over-investment (and over-production) is not easy. One obvious measure will be the capacity utilization ratio, but it cannot capture the widespread practice, especially in the early stage of an economic downturn, of firms operating at relatively high capacity while accumulating as inventories what they cannot sell. A better alternative measure, we believe, is the inventory index, which avoids this problem, but even this is not without problems. First of all, firms with overseas subsidiaries can export what would remain as inventory in an attempt to maximize their access to foreign exchange – this practice was widespread during the early days of the current crisis by the leading chaebol with their subsidiaries abroad. Second,
Given this situation, we believe that it is necessary to restore the role of investment coordination by the government through industrial policy measures, albeit in a modified form, if we are to avoid a repeat of over-investment and crash in the future (more on this later). Moreover, given the growing importance of chaebol-controlled financial institutions, tougher financial regulations will also be necessary in order to prevent the accumulation of vast funds, which may aggravate the over-investment problem by channelling a disproportionate share of the chaebol’s funds into their sister firms that are in an investment boom (this need not be done illegally).

### 6.2 Abuse of Power

The abuse of economic and political power by large corporations has also been a major concern at least since the

---

inventory indexes are usually compiled (by the National Statistical Office) at the broad industry level, while over-production usually occurs at the product or even sub-product levels. For example, in 1997, there was large-scale over-production in the Korean memory chip industry, but the inventory index was compiled only at the level of the “radio, television, and communication equipment” industry, which includes the former as a branch. Given that over-investment and over-production problems in other branches of this industry were not as serious as that in the memory chip branch, the inventory index for the whole industry is bound to under-estimate the degree of over-production in the memory chip industry. Even considering this, however, the degree of over-production in Korean industries in 1997 was significant. Taking the inventory index of 1995 as 100, the inventory index in 1997 for the “radio, television, and communication equipment” industry was 199.6. The inventory index for the “motor vehicles and trailer” industry was 152.4 and that for the “chemicals and chemical products” industry (which included the petrochemical industry, where the over-capacity problem was the most serious) was 124.9.
late 19th century in all capitalist societies, but the problem in Korea has recently become quite worrisome.

The abuse of economic power by the chaebol has a long history and is already well documented. As most firms with market power belong to a chaebol, they have often exploited consumers. They also financially exploit their suppliers by routinely issuing long-term post-dated cheques and squeezing them through price cuts and other concessions in times of financial trouble. Many of their procurement officers are known to take bribes from suppliers anxious to get new contracts or not to lose existing ones.

The abuse of political power by the chaebol is a more recent phenomenon. In Korea, there has always been a close (but not necessarily cronyistic) relationship between the government and the chaebol, but the worst abuses of the chaebol’s powers had been contained by the government’s dominating position until the 1980s (see section 3 for more details). However, as symbolized by (Hyundai group founder) Mr. Chung Ju Young’s candidacy in the 1992 presidential election, the chaebol have organized themselves into a powerful political group and have been exercising increasingly greater influence on government policy without the necessary accountability (more on this later).

The conventional wisdom holds that these abuses of power can best be controlled by exposing the chaebol to greater market discipline, but this is not going to work. The natural tendency of the market is toward concentration. The fact that 80% of the bonds issued during 1998 were secured...
by the top 5 *chaebol*, after the government removed restrictions on bond issues, lends support to this view – and indeed the government reimposed restrictions in an implicit recognition of this view. It is hoped that the recent legislation strengthening the rights of minority shareholders will restrain abuses of power by the *chaebol*’s top management, but this has the limitation that many minority shareholders are likely to acquiesce to the abuse of power, as they will usually benefit from this if it involves the exploitation of others (e.g., suppliers, consumers). It is also hoped that the recent introduction of the requirement that companies recruit more than 25% of their directors from outside (and there is a proposal to increase it to 50%) will do the same, but it is not clear how much outside directors can do when many of them are “friends” of the corporations, are non-experts in corporate matters, and have the burden of multiple directorships.

Therefore, we need to go beyond the rather narrow shareholder-centred notion of corporate governance behind the recent legislation if we want more effective control over the *chaebol*. We need to involve a wide range of governmental agencies (as the ultimate guardians, however imperfect, of social interests) and private-sector actors (e.g., suppliers, unions, consumer groups, NGOs, local communities) – or the stakeholders – as countervailing forces to these giant corporations.
III. Understanding the Government–Chaebol Relationship in Korea

Together with the chaebol system, the government-chaebol relationship has been identified by many commentators as a pathological element of the traditional Korean system that was a root cause of the recent crisis. Two arguments along this line are often mentioned – the so-called “crony capitalism” argument and the so-called “too big to fail” argument (see Chang, forthcoming [2000] for further discussion on these arguments, including comparisons with other crisis-stricken Asian economies).

According to the crony capitalism argument, the corrupt symbiosis between the government and the chaebol has meant that the latter have bought government favours through legal and, more importantly, illegal political contributions. As the story goes, lenders naturally regarded enterprises with cronyistic connections as having no downside risk (as the government would rescue them if they get into trouble), and were willing to lend them as much as they wanted, thus inflating asset bubbles that led to the crisis (e.g., Krugman, 1998a).

The so-called “too big to fail” argument focuses on the fact that the Korean chaebol are very large in relation to the size of the national economy and therefore their failure can have a very large impact on it. These chaebol, the supporters of this argument contend, took excessive risks because they knew that the government could not afford to sit and watch
them go bankrupt for fear of large-scale ripple effects such as large-scale unemployment and the chain bankruptcy of subcontracting firms – a case of moral hazard (e.g., Yoo, 1997; Pyo, 1998; Burton, 1998).

These arguments have very strong *prima facie* validity. It is a known fact that the *chaebol*, partly voluntarily and partly out of compulsion, have always made big contributions to the ruling parties of Korea and that government policies have always had a strong (if not always intentional) bias towards them. The government has frequently intervened in the restructuring of the *chaebol* in trouble, often injecting extra cash into them (directly and indirectly) and sometimes even nationalizing them if the cost of the rescue was deemed too large. However, as we shall soon see, these arguments are of dubious theoretical validity and not supported by empirical data.

1. Crony Capitalism

The story of cronyism has been very popular, especially in the early days of the Korean crisis, both inside and outside the country, given the widespread perception that there has always existed a close and often corrupt relationship in Korea between the government and business, especially the *chaebol* – or what is known in Korea as *jungkyung yoochahk* (meaning literally the “adhesion between politics and economics”).

The biggest problem with the cronyism argument is that if
precisely defined as the conferring of political favours on the basis of personal relationship and/or financial transfers, it was never a central, or even an important, feature of Korea’s traditional developmental model. It is true that there were indeed a lot of funds flowing from businesses to politicians and bureaucrats. However, these were usually general extractions applied to all firms (hence the popular description of these as quasi-taxes) and were rarely tied to specific favours as far as the key manufacturing sectors are concerned (although it was a different story in areas like urban planning, construction, and defense). In other words, the traditional Korean government-chaebol relationship may have been corrupt, but in the key manufacturing sectors the corruption that existed was a generalized rather than a cronyistic one.

It is true that since the late 1980s, and especially under Mr. Kim Young Sam, cronyistic relationships have spread into some key manufacturing sectors. And contrary to conventional wisdom, this was not least because of the weakening of the government’s industrial policy. In the traditional system, it was very difficult, if not impossible, to change the course of industrial policy for cronyistic purposes, as the policy goals were pretty clear and well publicized. Since the late 1980s, the weakening of industrial policy meant that there were probably fewer benefits from establishing cronyistic relationships than before, but it also meant that, once such relationship was established, there was much greater room for changing the policies in one’s favour, as

138 Korean Chaebol in Transition : Road Ahead and Agenda
policy guidelines were now much less clear (if they existed at all). The corruption surrounding Hanbo’s entry into the steel industry is the best example, but the existence of a few chaebol which were regarded by many people as being particularly close to Mr. Kim’s government suggests the spread of cronyism during his rule.

Having said that, however, even under Mr. Kim, the spread of cronyism did not go far enough to make cronyism a central feature of Korea’s political economy. In fact, for whatever it is worth, the “corruption perception index” compiled by Transparency International shows that corruption was perceived to be diminishing in Korea on the eve of the crisis, in spite of the well-established historical trend that during financial euphoria incidences of corrupt behaviour tend to increase both in the private and public sectors (Kindleberger, 1996, Ch.5). On a scale of 0 (very corrupt) to 10 (very clean), Korea’s score went down from 3.93 during 1980-85 to 3.50 during 1988-92, but significantly went up to 5.32 in 1996.18)

---

18) Similar pictures exist in other crisis economies in Asia, thus questioning the validity of the crony capitalism story as an explanation of the 1997 crisis in Asia in general, not just in Korea. Thailand showed the same pattern as Korea – that is, the corruption problem was perceived as having become worse in the late 1980s and the early 1990s but improved on the eve of the crisis compared to the early 1980s. The figures were 2.42 (1980-85), 1.85 (1988-92), and 3.33 (1996). In the Malaysian case, corruption was also perceived to have become worse and then better, although the perception of corruption in 1996 was worse than that of the early 1980s – its figures were 6.29 (1980-85), 5.10 (1988-92), and 5.32 (1996). Indonesia, starting from a very low base, has shown a continuous and marked improvement right up to the crisis – its figures were 0.20 (1980-85), 0.57 (1988-92), and 2.65 (1996).
2. The Logic of “Too Big To Fail”

The logic of “too big to fail” (henceforth TBTF) is difficult to dismiss, especially given that it is indeed practised by all governments in all capitalist countries, including the ones that claim to be the most market-oriented. The rescue of the US hedge fund Long Term Capital Management (LTCM) is one prominent recent example, but other examples abound. In the late 1970s, the bankrupt Swedish shipbuilding industry was rescued through nationalization by the country’s first right-wing government in over 50 years, which came to power with the promise of introducing greater market discipline. In the USA, it was the avowedly free-market Reagan administration that organized a rescue operation for carmaker Chrysler in the early 1980s.

However, there is theoretical confusion in the TBTF argument between the rescue of a firm and the rescue of its owners and/or managers who are responsible for creating a situation where rescue is needed. To the manager, it is not much of a consolation that his/her firm is saved by the government due to its large size if the rescue operation involves the termination of his/her contract. So if a manager knows that he/she will lose his/her job if his/her firm performs badly, there is little incentive on his/her part to take excessive risks. The same goes for the owners. If the owners know that the rescue operation requires them to give away corporate control, they cannot afford to be lax in management (in case
they are owner-managers) or in supervising the hired managers. In other words, whether government bailouts of large firms encourage moral hazard by the managers of other large firms depends on whether they are accompanied by punishment for bad management.

The evidence from Korea is not on the side of the TBTF argument. In the 1960s and 1970s, especially, when the country was going through rapid structural changes, it was not infrequent to see even some of the largest chaebol going bankrupt and their carcasses divided up through state-mediated take-overs. The second largest chaebol during the 1960s, Samho, had all but disappeared by the late 1970s after a series of bankruptcies of its core firms. The Gaepoong chaebol, which ranked between 3rd and 4th during the 1960s had virtually disappeared by the mid-1970s following a series of business failures. The Donglip chaebol, which ranked 9th in the early 1960s, went bankrupt by the end of the de-cade. The owner of the once-largest car manufacturer in the country, Shinjin, was forced to sell it off to state-owned Korea Development Bank (which then sold it to Daewoo) in the late 1970s, when it got into trouble. Dongmyung, the chaebol built around what was the world’s largest producer of plywood around the early 1970s, went bankrupt in 1980.

These are striking statistics. For example, the collapse of three of the top-10 chaebol in the 1960s (namely, Samho, Gaepoong, and Donglip) is equivalent in American terms to the disappearance by the early 1980s of Standard Oil (New

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 141
Jersey), Ford Motor, and IBM, which ranked 2nd, 3rd, and 9th respectively in the Fortune US enterprise ranking in 1964. As a result, until the mid-1980s, there was a very high turnover even in the ranks of the top 10 chaebol. Only three of the top 10 chaebol in 1966 were still in that select group in 1974 and only five of the 1974 top 10 were in the 1980 top 10 (Chang, 1994, p.123).

After the mid-1980s, and especially in the 1990s, the ranking of the top 10 chaebol remained highly, if not completely, stable, but among the lesser chaebol there was still a high level of turnover. Between 1986 and 1996, among the 20 chaebol that ranked between 11th and 30th, there were on average 14 changes in the rankings and 2.2 new entries into the group every year (Park, 1998, Table 9). Between 1990 and 1996 alone, three of the top 30 chaebol (Hanyang, Yoowon, and Woosung) went bankrupt, showing that there is no substance to the claims that “in Korea, none of the chaebol had been allowed to fail for a decade before Hanbo steel collapsed in early 1997” (Radelet and Sachs, 1998, p.42). In 1997, in the build-up to and at the beginning of the crisis, six of the top 30 chaebol (Kia, Halla, Jinro, Hanbo, Sammi, and Haitai) went bankrupt, again debunking the TBTF argument (Chang et al., 1998).

Of course, all these are not to deny that the Korean government frequently injected money into ailing large enterprises through state-owned banks (especially through the Korea Development Bank). However, these financial injections were conditional, with very few exceptions, on the
change of ownership and of top management, and were always accompanied by tough terms of financial restructuring. In other words, the rescue of large enterprises by the Korean government should be seen as instances of government-mediated take-overs or restructuring rather than as bailouts in the strictest sense (à la LTCM).

3. The Changing Nature of the Government-Chaebol Relationship

If, as we argued in the previous section, the currently popular arguments about the nature of the government-
chaebol relationship in Korea – namely, crony capitalism and the “Too Big To Fail” argument – fundamentally misrepresent the relationship, how are we to understand it?

We propose to characterize the corporate governance system that ruled the relationship between the Korean government and the chaebol as a “state-controlled insider system.”

It is an “insider” system in that the owner-managers of the chaebol were insulated from the influence of outside investors through an intricately-developed system of intra-group shareholding, against the backdrop of a corporate law banning hostile take-overs. However, the system was fundamentally state-controlled, although it became increasingly less so over time, in the sense that the government exercised a strong influence on corporate investment decisions and mediated the process of change in

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 143
corporate control, using industrial and financial policy tools.

The most important (and also most controversial) aspect of the government’s role in this system was to minimize over-investment (see section 2.6). This was done through various policies of *ex ante* investment coordination and the *ex post* facilitation of industrial and corporate restructuring when an over-investment problem emerged for one reason or another (e.g., some firms defying government policy, external shocks, erroneous government projections). *Ex ante* investment coordination involved restrictions on entry, exit, and capacity expansion, in line with the Five Year Plan (implemented between 1962 and 1993) and various sectoral plans. *Ex post* management of the over-investment problem involved government mediation (and sometimes imposition) of corporate take-overs, mergers, forced exits, business swaps, and market-sharing arrangements.

The most important examples of such government-mediated industrial restructuring include the following: (i) the series of state-mediated corporate take-overs in 1969 amid the emerging domestic debt crisis that lasted until 1972 (see Chang and Yoo, 1999, for details); (ii) the 1980 industrial reorganization programme following the second oil shock, which involved forced exits, government-mediated mergers, business swaps, and market-sharing arrangements in 6 major industries (see Chang, 1993, for details); (iii) the series of government-mediated mergers in a number of industries in the mid-1980s (see Chang and Yoo, 1999 for details); and (iv) the so-called “Big Deal” programme under the current
government, which involves mergers and business swaps in 9 industries suffering from over-investment (see below and Chang and Yoo, 1999, for details).

In this state-controlled insider system of corporate governance, the *chaebol* did not have to worry about short-term financial profitability, as it was an “insider” control system. However, they knew that they had to deliver results (although not measured in terms of financial profitability) in the medium to long run if they were to get continued governmental support and to continue to prosper (Amsden, 1989; Chang, 1993; Evans, 1995). This was because the Korean government was willing and able to discipline non-performers through various means ranging from control over credit and foreign exchange allocation to its ability to force transfers of corporate control.

What is important to note here is that what made this system of state control effective was not simply the state’s control over financial resources and regulatory measures, but the widespread (even among businessmen) perception of corporations, and especially the *chaebol*, as “social” entities that are integral parts of the national project of industrial development, and not as mere properties of the shareholders.

While the shareholder-centred view of the corporation never had any deep roots in the country, the decisive event that clearly established the society-centred view of the corporation was the so-called “Illicit Wealth Accumulation” episode of 1961 (see Jones and Sakong, 1980, for details). Right after it seized power through a military coup, the Park
Chung Hee government arrested some prominent businessmen on charges of illicit wealth accumulation through what these days may be called cronyistic connections and through illegal activities such as smuggling. Subsequently, the government pardoned these businessmen, but only after they promised that they would “serve the nation through enterprise” (*Sah-up Bogook*).

Such a view of corporations was not simply a slogan imposed on a reluctant business community. At least in the early days of the country’s industrial development, many leading business figures believed in that view and often made public proclamations to that effect. Mr. Chung Ju Young, the founder of the Hyundai group, is once reported to have said: “I firmly believe that anyone who puts his own business interests ahead of his country’s cannot succeed in the long run” (cited in Steers, 1999, p.236). Although what business leaders saw as their “social” or “national” interests may not always (or even usually) have been the same as what the government thought them to be, this is something difficult to imagine in an Anglo-American corporate world. At the same time, the public was willing to tolerate the use of taxpayers’ money in corporate rescue operations because they implicitly regarded these companies as semi-public entities.

Of course, over time, the “social” view of the corporation has come under increasing attack. With their growing economic and political power, the *chaebol* started resenting government intervention and became more aggressive in
demanding liberalization.\textsuperscript{19}) With their privileged background (which few of their fathers had) and stints in the US (whether education or business), the second generation \textit{chaebol} leaders, most of whom started taking over their fathers’ businesses from the 1980s, were much more biased towards shareholder-centred corporations and therefore much less willing to tolerate government intervention. The increasing influence of neo-liberal ideology since the 1980s, combined with spreading share ownership, also meant that the public, especially the intellectuals, was increasingly influenced by the shareholder-centred view of corporations.

With the series of changes in corporate law and industrial regulations following the IMF demands after the 1997 crisis, the shareholder-centred view of corporations has now become, politically and legally, the correct view. However, it is common knowledge that formal institutional changes cannot define the whole universe of our behaviour, and the recent corporate governance reform is not an exception to this.

First of all, there is dissonance between formal institutions and social perceptions. In a recent survey (25 March 1999)

\begin{footnotesize}
\begin{enumerate}
\item In the spring of 1997, the Federation of Korean Industries, the \textit{chaebol} association, prepared a report arguing for the abolition of all government ministries except the ministries of defense and foreign affairs and for the consequent reduction of government staff by 90%. The report had to be officially withdrawn because it was unfortunately leaked before the end of the embargo by a careless newspaper reporter and created a popular uproar (14 April, 1997, \textit{Maeil Business Daily}). While the chance of such a proposal being taken seriously was non-existent even considering the anti-statist mood that the country was in at that time, the incident is illustrative of the aggressiveness that the \textit{chaebol} were then showing in pushing for greater business freedom.
\end{enumerate}
\end{footnotesize}
by a leading business newspaper, the *Maeil Business Daily*, it was revealed that 500 “members of the public” interviewed believed very strongly that corporate profits belong more to society (7.35 on a scale of 10) than to shareholders (5.46 on a scale of 10). They also believed that employee welfare (8.09 on a scale of 10) and “social contribution” (7.99 on a scale of 10) are almost as important as profit-making (8.16 on a scale of 10) as an objective of corporations. In other words, after a decade of onslaught of the neo-liberal ideology and the wide-ranging changes in corporate law after the 1997 financial crisis, the Korean public still strongly believes in a social, or stakeholder-centred, view of corporations.

Secondly, there is dissonance between formal and informal institutions. Despite the formal institutional changes toward a shareholder-centred model of corporate governance and towards *laissez faire* industrial and financial policies, the Korean government has actively intervened in the process of corporate restructuring following the recent crisis. Although it is now using methods that are less explicit than before (e.g., indirect influence through the Financial Supervisory Commission, calculated pronouncements by key government figures), it has nonetheless played a critical role in pushing through the so-called “Big Deal” corporate restructuring programme. Its involvement in the recent reorganization of some technically bankrupt *chaebol* has also been largely in line with past practices, however much it likes to present its action as a radical departure from the past. As in the past (see 148 *Korean Chaebol in Transition: Road Ahead and Agenda*
section 3.2), it has imposed radical restructuring plans on ailing firms while ensuring their survival by facilitating a continuous supply of credit.

Thus seen, it is true that the government-chaebol relationship in Korea has recently, especially after the 1997 crisis, gone through some very important changes, but elements of the old corporate governance system still survive and sometimes exert a strong influence. However, it would not be right to regard the behaviour of the current Korean government as basically cynical – doing the same things as before while giving lip service to shareholder sovereignty and free market in order to avoid international criticism. The point is that informal institutions change much more slowly than formal ones ("old habits die hard"), and therefore the recent changes in Korea’s formal institutions of corporate governance cannot transform overnight the way in which corporations relate to each other, to the government, and to society at large.

4. Future of the Government-Chaebol Relationship

What emerges from our analyses above is that the “traditional” system of corporate governance, while not without important limitations, was by no means as corrupt and inefficient as it is widely believed these days. Also, the traditional system is by no means dead, despite public pronouncements to the contrary. However, many people argue that, whatever the merits of the old system may have
been, Korea is better off parting with it completely as soon as possible, because the changes in the country’s economic and political conditions have made the old system infeasible anyway.

Two arguments in this regard are frequently invoked. The first such argument is that the attainment of economic maturity by a country following more than three decades of rapid economic development has made centralized coordination very difficult, if not completely impossible. The other popular argument is that increasing democratization has made state intervention politically less acceptable, as it interferes with freedom. Let us examine these arguments more closely (further discussions can be found in Chang, 1999).

4.1 Economic Maturity

There are two variants to the economic maturity argument – one based on the problem of complexity, and the other based on the problem of uncertainty.

The complexity variety of the economic maturity argument is that with economic development, economies become more complex, and therefore they become more difficult to administer. Is this true?

It is true that, other things being equal, a more complex problem increases the informational requirements for a successful policy solution, and therefore is more difficult to manage centrally. But the point is that other things are not equal.

First of all, a more mature economy is likely to have a
better administrative capability, if only because its bureaucracy will have had more opportunities to engage in learning-by-doing. Secondly, a more developed economy is typically better organized into larger and better-managed units (e.g., large modern corporations, producer associations, community organizations). This means that it is easier to implement a given policy in a more mature economy, as the latter is likely to have more effective intermediate enforcement mechanisms.  

In short, a more mature economy typically (but not always) has more complex tasks at hand, but at the same time it typically has better capabilities (both at the governmental and social levels) to manage those tasks. Therefore, it is not clear whether centralized coordination through industrial policy becomes necessarily more difficult with economic development and maturity.

A related, but different, variety of the economic maturity argument is based on the problem of uncertainty rather than complexity. The argument is that when a country reaches the frontiers of technological development, it becomes much more uncertain what the government should be doing to help its industries.

However, first of all, many of the justifications for Industrial policies hold for frontier industries too (e.g., investment coordination, restraint of predatory monopoly practices), and

20) On the other hand, The point can also be made that industrial policies are typically very difficult to implement in industries where firms are very small and not organized into industry or regional associations.

2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 151
some of them may become even stronger with economic maturity (e.g., learning externalities). Secondly, even in a frontier industry with genuine uncertainty about its future, there is no reason why an intelligent bureaucracy in close consultation with the private sector should not be able to identify the broad trends and provide support for certain types of productivity-enhancing activities – the best example being that of Japan during the 1980s and the early 1990s (e.g., see Okimoto, 1989, Fransman, 1990, and Weiss, 1998, for some examples). Thirdly, most Korean industries have yet to reach the frontier, and therefore this argument is not relevant for them. Seen from this perspective, we may say that if industrial policy worked well in Japan as late as the late 1980s and early 1990s, it should work for Korea for another few decades, if not necessarily beyond.

4.2 Democratization

It is now widely accepted that interventionist industrial policies require a strong state that can over-ride sectional interests (Amsden, 1989; Chang, 1993; Evans, 1995). Many people have interpreted this statement, wrongly in our view, as implying that the increasing democratization of Korean society will make such policies politically less acceptable and therefore less feasible.

However, industrial policies are perfectly compatible with a democratic polity. We can see this point more clearly by looking at the experiences of countries like France, Japan, Austria, Norway, and Finland during the post-war period. All
of these countries have maintained a fully democratic political system since the Second World War, and many of them are famous for consensus-orientation in their politics. However, during the post-war period, all of them have successfully used industrial policies in one way or another. Indeed, in many of these countries, industrial policies were strengthened rather than weakened following the greater democratization of their societies after the Second World War.

What do these examples tell us? They tell us that the implicit assumption underlying conventional wisdom – namely, if the decisions are made democratically, people will naturally opt for less interventionist policies – is wrong. As our examples show, many democratic societies have adopted and successfully implemented strong interventionist Industrial policies at will, and therefore it is wrong to believe that de-mocracy is incompatible with an interventionist government. Indeed, we can go one step further and even argue that in-dustrial policies, or for that matter any other policies, can be more effectively implemented in a democratic society since every policy requires for its long-term success some degree of consent by those who are going to be affected by it. This is more likely to be the case if the decision was made democ-ratically rather than imposed from the top in an authoritarian, or even dictatorial, way.

It is certainly true that the conduct of industrial policy in Korea in the past has often been undemocratic, although probably not to the extent that it is often made out to be –
there was at least some degree of policy consultation not just with the business sector but with the wider public. However, it is erroneous to believe that reducing government intervention brings more democracy. Especially when there are large private sector entities like the chaebol with enormous economic and political power, less government intervention can even mean a reduction of democratic control over society. Indeed, given the strongly stakeholder-oriented view of corporation governance that prevails in Korea, the main problem that the Korean public seems to have against the old system of government-chaebol relationship is that of democratic accountability rather than their objection to government intervention itself. If that is the case, what is more important is not the simple reduction in the scope of government intervention, but the construction of a mechanism through which policy consensus can be reached democratically and policy actions made democratically accountable.

**IV. Conclusion**

In this paper, we have argued from many angles that the conventional wisdom regarding the chaebol system and the government-chaebol relationship has many serious flaws. We argued that some of the “pathological” features that according to this view distinguish the chaebol from firms in other countries – extremely low profitability, excessively high leverage, and excessive aversion to financing through
the stock market – do not have much empirical substance (in some cases more than others). Some other features – such as excessive diversification and high concentration of insider ownership – are partly true, but they are not as pathological as they are often thought to be. The most serious problem with the current dominant view, however, is that it fails to understand the nature of the investment-growth dynamics that has characterized the Korean economy during the last few decades, and how many of the allegedly “pathological” features of the Korean chaebol were integral to this rather successful dynamics.

If they are based on such flawed empirical bases and partial analyses, it is only natural that the recent reforms of the corporate governance and financial systems in the country have not been able to address some of the very problems that they are supposed to address and have in some cases made them even worse. For example, financial liberalization has led to an increasing dominance of the largest chaebol by enabling them to mobilize more funds through the bond market and the newly allowed investment funds. Moreover, when these changes were combined with the abolition of the ban on hostile take-overs, they have created incentives and opportunities for the chaebol to dramatically increase the importance of “insider” ownership.

We argued that there are even more worrying problems with these reforms than these unintended consequences. Firstly, these reforms are very likely to weaken some of the strengths of the traditional Korean system, such as the ability
to mobilize “patient” capital. And secondly, they are not going to be able to address the real problems posed by the chaebol – especially, their tendency to over-invest and the possible abuse of their enormous economic and political power.

We then argued that addressing such real problems of the chaebol requires a revival of industrial policy and financial regulation. In doing so, we pointed out some fundamental problems with the currently dominant view on the government-chaebol relationship – namely, “crony capitalism” and the “Too Big to Fail” argument – and suggested how this relationship should be restructured in our view. We argued that what we need is not the transformation of institutions in the Anglo-American image (and a very idealized and partial version of it at that) as the currently dominant reform agenda pursues, but a restructuring of the government-chaebol relationship (and the industrial and financial policy regimes that govern that relationship) in a way that is more consensual and more open to democratic scrutiny.


Bank of Korea (BOK) various years, *Financial Statement Analysis*, Bank of Korea, Seoul.

Bank of Korea (BOK) various years, *Flow of Funds*, Bank of Korea, Seoul.


2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 157


2. An Alternative Perspective on Government Policy towards the Chaebol in Korea 159


Mayer, C., “Financial Systems, Corporate Finance, and Eco-


PART II

_Chaebol Restructuring Policies and Evaluation_

3. Chaebol Restructuring Revisited: A Coasian Perspective 153
3. *Chaebol* Restructuring Revisited: A Coasian Perspective

Lee, Jae-Woo
I. Prologue : A Debate on Externality and Government Intervention

Top economic policy makers often claim, without exception, that the primary reason for state intervention in the chaebol restructuring process is the presence of negative external effects. For example, they argue that the sovereign credit rating of South Korea depends very much on how successfully the chaebol restructure themselves: if a giant chaebol collapses, it directly degrades Korea’s credit rating, eventually harming other firms.

Despite such justification for state intervention, this explanation leaves much room for debate. Is externality a sufficient condition for state intervention? The winner of the Alfred Nobel Memorial Prize in Economics Sciences in 1991 provides a succinct answer to this problem:

There are, without question, effects of their actions on others (and even themselves) which people making decisions do not take into account. But as employed today, the term carries with it the connotation that when “externalities” are found, steps should be taken by the government to eliminate them. As already indicated, the only reason individuals and private organizations do not eliminate them is that the gain from doing so would be offset by what would be lost (including the costs of making the arrangements necessary to bring about this result). If with govern-
mental intervention the losses also exceed the gains from eliminating the “externality,” it is obviously desirable that it should remain (Coase, 1988, pp.26-27).

What Coase says is that governments should only be allowed to intervene in markets when markets fail and also that the costs resulting from governments correcting market failures are less than the costs associated with the market failures themselves. This second condition implies that market failures are not a sufficient condition for state involvement.

This economics of government intervention implies that the state needs to be very cautious in deciding to take measures to curb corporate failures or problems. Under the “sacred” cause of reform, however, almost all chaebol policies have been widely accepted by the public.\(^1\) For example, the government has been deeply involved in industrial restructuring through the big deals and workout programs. Furthermore, it put pressure on the chaebol to lower their debt-equity ratio below 200% by the end of 1999. If the conglo-merates failed to do so, they were subject to penalties such as credit termination. Recently, in the process of dismantling the Daewoo group, the second largest chaebol in Korea, the government got deeply involved in the market. It will take much longer than any one expected to see what

\(^{1}\) We will see why the chaebol reform may be termed as a sacred war after realizing how deeply the anti-sentiment against the chaebol is rooted.
the ultimate outcome those policies will produce.

Popularity does not guarantee success. Sometimes it intoxicates policy makers and makes it more difficult for them to discern good policies from bad ones. Excessive state intervention, often found in those programs, can harm rather than help the economy. Especially, building up a set of market-friendly (alternatively, market-enhancing) institutions may be a long-term goal that successful reform policies should pursue.

Bureaucrats are more tempted to use the “visible hand” in times of crisis when there exists serious time constraints. To build up an economic system where the “invisible hand” works, it is imperative to tie the government’s hands institutionally. It is with respect to this that we put emphasis on institutional reforms rather than direct intervention.

The government tends to take intervening measures that are by nature discretionary. As a result, these operations might not follow widely accepted norms and procedures. In addition, they are often bound to a politically-set deadline. These features act counter to the long-term objective of reforms.

In this paper, we investigate the process of chaebol restructuring in Korea. In particular, we will highlight Coasian perspectives that appear to be very useful in analyzing both the chaebol and the government. In the “Nature of the Firm” (Coase, 1937), Coase launched the modern theory of the firm by asking, “If markets worked perfectly, why would there be firms?” Coase argued that firms would exist only in en-
environments in which firms perform better than markets could. To create space for firms, Coase suggested that some environments might be plagued by “transaction costs” that cause markets to perform inefficiently (Gibbons, 1999). This insight is very useful in understanding why the chaebol exist and what determines what they do.

Coase’s other path-breaking article is the “Problem of Social Cost” (Coase, 1960). What he shows in that article is that in a regime of zero transaction costs, an assumption of standard economic theory, negotiations between parties would lead to those arrangements being made that would maximize wealth, and this irrespective of the initial assignment of rights. This is the famous Coase theorem. This theorem demonstrates that in the world of zero transaction costs, Pigouvian solutions (such as government operations, regulations, or taxation, including subsidies) are unnecessary. Ironically, the real upshot of the theorem comes about when transaction costs are positive. In this situation, such a negotiation procedure would be extremely costly and make unprofitable such exchange contracting. Then the legal system, which determines who possesses which right, will have a profound effect on the working of the economic system. Coase pays attention to the role of the government but in a different way from Pigou. He succinctly summarizes the role of government in the following way:

It is obviously desirable that these rights should be assigned to those who can use them most produc-
tively and with incentives that lead them to do so and that, to discover (and maintain) such a distribution of rights, the costs of their transference should be low, through clarity in the law and by making the legal requirements for such transfers less onerous (Coase, 1992, p.718).

This can come about only if there is an appropriate system of property rights (and that they are enforced). In other words Coase points out the role of government in finding and maintaining the efficient structure of property rights. This insight provides us with some lessons on corporate restructuring methods. A market-based chaebol restructuring plan can be suggested from this analysis: to reduce the costs of using the market vis-à-vis chaebol organizations. More specifically, we (the government) need to find out what institutional drawbacks or hurdles prevent efficient and spontaneous bargaining and exchanges from taking place in markets and then remove (or change) them to see the real, not cosmetic, restructuring efforts of the chaebol.

II. Characteristics of Chaebol and Restructuring

In Korea, since the IMF bailout there is a very interesting and important mystery about corporate reform. Almost every poll, both at home and abroad, on the performance of
enterprise (especially *chaebol*) restructuring shows that the *chaebol*, or giant Korean conglomerates are lagging behind when it comes to resolute and determined reforms. It has even been argued that they are protesting the government’s reform drive.

One mystery here, however is that nobody can be sure of what is meant by “*chaebol* reform,” which has become one of the most popularly used keywords in a nation suffering from the IMF syndrome. The content and scope of *chaebol* reform has been very vague and leaves much to the imagination, according to who uses the term.

By “*chaebol* reform,” international institutions such as the IMF and the World Bank appear to mean solving the excessive debt problem epidemic to the Korean *chaebol*. International investors and financiers pay more attention to the transparency issue in the *chaebol’s* governance structure. Government officials are more concerned about over-diversification and the ensuing over-investment. Korean NGOs, which have been emerging as powerful *chaebol* watchdogs, argue that the *chaebol* reform must culminate in depriving the owners or current controlling shareholders and their families of control rights.

This absence of a generally accepted agreement in the content of *chaebol* reform necessarily gives rise to much confusion on the proper role of the government in the corporate reform process. This confusion has to a great extent contributed to the government’s trial-and-error process in planning and implementing corporate reform policies since

160 *Korean Chaebol in Transition : Road Ahead and Agenda*
the recent economic crisis. For example, All this uncertainty around *chaebol* reform is clustered around several core questions, such as whether the *chaebol* should be dismantled, and in what way should it be done?

To discuss the *chaebol* more specifically, first of all, one needs to identify what they are precisely. They can be characterized in various ways. More specifically, they are often viewed as having the following features in common.

- Their economic concentration is noticeable.
- They are conglomerates of many companies.
- They tend to spread across industries.
- Their companies hold shares in each other.
- They are more dependent upon centralized control than the Japanese *keiretsu*.
- Unlike the *keiretsu*, most *chaebol* do not own a bank, but have other financial institutions such as securities and insurance companies.
- They are highly debt-leveraged.

They can be summed up in 3 aspects: with few exceptions, they are family-owned and controlled (corporate governance structure), highly diversified conglomerates (business structure), and debt-leveraged (capital structure).

1. **Pyramid Control by founding families**

   With the exception of the Kia group, which was acquired
by Hyundai, almost all chaebol are owned and controlled by their founders or their offsprings. As shown in Figure 1, the equity owned by the founding families of the top 30 chaebol is decreasing every year. On average, equity owned by the controlling shareholders has dramatically dropped from 13.7% in 1990 to 5.4% in 1999. Thus, their control over the chaebol is becoming more dependent on crosssubsidiary ownership.

Theoretically, the presence of large shareholders can have benefits, such as reducing agency costs (and the free-rider problem) arising from the separation of management and finance, or, in more standard terminology, of ownership and control. This is self-evident since the holders of considerable

162 Korean Chaebol in Transition: Road Ahead and Agenda
amounts of shares clearly have an interest in monitoring whether the company is properly managed or not.

On the contrary, large investors might produce costs in corporate governance. For example, they expropriate other investors by pursuing their own interests, which need not coincide with the interests of other investors in the firm. Their ability to do so is especially great if their control rights are significantly in excess of their cash flow rights. This happens especially when they own equity with superior voting rights or if they control the firm through a pyramid structure, i.e., if there is substantial departure from one-share-one-vote. A corporate governance article lists the potential costs of having large investors: “straightforward expropriation of other investors, managers, and employees; inefficient expropriation through pursuit of personal (non-profit-maximizing) objectives; finally the incentive effects of expropriation on the other stakeholders” (Shleifer and Vishny, 1997, pp.758-761).

Considering the disproportionately low share of equity of the “manager-owners,” who have built their conglomerates, the above stated potential costs are more likely to be realized in the process of chaebol management. For example, the Economist (June 1995) reports that the Korean chaebol sometimes sell their subsidiaries to relatives of the chaebol founder at low prices. An excessive level of cross-subsidiary transactions and transfer pricing is the manifestation of expropriation of other investors, such as small shareholders, by the controlling shareholders.
2. Empire-Building of Conglomerates

The *chaebol* have been engaged in expanding their business into unrelated areas. Many Economists and strategy consultants have criticized the *chaebol*’s extreme expansionist strategy as “octopus leg” expansion. By looking at the changes in the number of *chaebol* affiliates, one can easily see that the *chaebol* have expanded excessively into new business areas. But their real problems lie in the fact that they have become “locked-into” their existing businesses and can not shed or cut down inefficient or non-viable legs. Cross-shareholding, cross-debt guarantees and internal credit sharing are the primary factors for the strong interlocking relationship among affiliates.

*Table 1* The Number of Subsidiaries of the Big 30 Groups

<table>
<thead>
<tr>
<th>Rank</th>
<th>Group</th>
<th>87</th>
<th>88</th>
<th>89</th>
<th>90</th>
<th>91</th>
<th>92</th>
<th>93</th>
<th>94</th>
<th>95</th>
<th>96</th>
<th>97</th>
<th>98</th>
<th>99.4</th>
<th>99.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hyundai</td>
<td>32</td>
<td>34</td>
<td>37</td>
<td>39</td>
<td>42</td>
<td>43</td>
<td>45</td>
<td>48</td>
<td>48</td>
<td>46</td>
<td>57</td>
<td>62</td>
<td>62</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Daewoo</td>
<td>29</td>
<td>28</td>
<td>28</td>
<td>27</td>
<td>24</td>
<td>22</td>
<td>22</td>
<td>24</td>
<td>22</td>
<td>25</td>
<td>30</td>
<td>37</td>
<td>34</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Samsung</td>
<td>35</td>
<td>37</td>
<td>42</td>
<td>45</td>
<td>48</td>
<td>52</td>
<td>55</td>
<td>50</td>
<td>55</td>
<td>55</td>
<td>80</td>
<td>61</td>
<td>49</td>
<td>44</td>
</tr>
<tr>
<td>4</td>
<td>LG</td>
<td>57</td>
<td>62</td>
<td>59</td>
<td>58</td>
<td>62</td>
<td>58</td>
<td>54</td>
<td>53</td>
<td>50</td>
<td>48</td>
<td>49</td>
<td>52</td>
<td>48</td>
<td>37</td>
</tr>
<tr>
<td>5</td>
<td>SK</td>
<td>16</td>
<td>18</td>
<td>20</td>
<td>24</td>
<td>26</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>32</td>
<td>32</td>
<td>46</td>
<td>45</td>
<td>41</td>
<td>36</td>
</tr>
<tr>
<td>6</td>
<td>Hanjin</td>
<td>13</td>
<td>16</td>
<td>18</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>21</td>
<td>23</td>
<td>24</td>
<td>24</td>
<td>24</td>
<td>25</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>Ssangyong</td>
<td>22</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>23</td>
<td>22</td>
<td>23</td>
<td>25</td>
<td>22</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>8</td>
<td>Hanwha</td>
<td>21</td>
<td>23</td>
<td>26</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>27</td>
<td>29</td>
<td>29</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>KeumHo</td>
<td>19</td>
<td>19</td>
<td>12</td>
<td>18</td>
<td>22</td>
<td>25</td>
<td>24</td>
<td>22</td>
<td>14</td>
<td>27</td>
<td>26</td>
<td>32</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>Lotte</td>
<td>31</td>
<td>32</td>
<td>32</td>
<td>31</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>30</td>
<td>29</td>
<td>28</td>
<td>30</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>11</td>
<td>Donga</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>16</td>
<td>19</td>
<td>22</td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

164 *Korean Chaebol in Transition : Road Ahead and Agenda*
This mixing up of profit- and loss-making companies (or divisions) inevitably brings about some level of subsidization across affiliates and makes it more difficult for the “internal capital market” to work properly as Williamson (1975) ideally expects from conglomerates. Transfer pricing as a subsidizing device, resulting in prices far from those dictated by the market, often triggers sanctions from the Fair Trade Commission.

3. Chaebol Restructuring Revisited: A Coasian Perspective 165
In addition, unrelated diversification can be another feature of the chaebol. While a tight business readjustment has been underway since the breakout of the financial crisis, an over-diversified business portfolio is still not the exception but the rule among the chaebol. In effect, the Big 4 (Hyundai, Samsung, Daewoo, LG) literally operate in all businesses “from chips to ships,” covering the financial as well as the manufacturing sectors. Other chaebol show a similar pattern, but with less severity, creating a “one set” system of self-sufficient production.

<Figure 2> Market Shares of the Big 10 Groups in Selected Industries
3. Debt-leveraged Business Expansion

Traditionally, Korean conglomerates preferred debt to equity as a financing source. To explain this debt-oriented financing practice, several factors can be suggested. The “owners” and their families, who founded their businesses in the 1960s-1970s, wanted to maintain control rights while at the same time relying on outside investors to accommodate new investments and firm expansion.

Korean financial institutions have fostered this type of corporate financing. The stock market was so weak that it was unable to provide the rapidly growing Korean enterprises with sufficient capital. Instead, big commercial banks at that time played an important role in funding and nurturing businesses, filling the gap for a weak capital market. Many economists argue that those banks, indirectly controlled by the government, supplied large-scale loans to certain businesses in order to build up so-called strategic industries. These strategic industries, such as heavy industries, typically needed large-scale investment, causing enterprises to be more debt-dependent.

In the macro perspective, a chronic high rate of inflation also lowered the cost of borrowing. Real interest rates were low, and in some period even negative. With a cheap price for capital, firms had very little incentive to look for financing devices other than debt.

No matter what the reasons are, the debt-equity ratio of the chaebol had consistently risen until 1997 before it started
decreasing dramatically under pressure from the government.

A high rate of debt *per se* does not create a problem unless it is abnormally high. Indeed, Korean firms maintained such high leverage ratios in the previous decades, still experiencing few economic difficulties at that time. Rather, economists argued that Korea, which lacked “development capital” or “seed money,” had no choice but to go ahead with such leveraged expansion.

<Figure 3> Debt-Equity Ratio of Big 30 Groups and Manufacturing firms

The real problem of leveraged expansion arises when it is accompanied by bad investments. It is when projects fail to generate revenues exceeding their opportunity costs that high leverage causes serious concerns. In Korea, the excessive

168 *Korean Chaebol in Transition: Road Ahead and Agenda*
investment problem has been exacerbated as many *chaebol* were earning less than their economic costs. The Korea Stock Exchange (1997) shows that most *chaebol* recorded negative economic value-added during the several years before the 1997 IMF bailout.

The high leverage ratios of Korean companies is now viewed as an anomaly by observers from developed economies. Many specialists have pointed out excessively debt-dependent financing, not followed by corresponding profitability, as a primary source of the Korean economic crisis.

*<Figure 4> Economic Value-Added of the Big 30 Groups and Non-group Companies>*

Yet, one cannot tell which level of debt ratio will be optimal for Korean firms. Nonetheless, there exists a

3. Chaebol Restructuring Revisited: A Coasian Perspective 169
consensus that on average Korean companies need to make their utmost effort to lower the ratio below a proper level to pull down the economy-wide default risk.

4. Chaebol on the Way to Restructuring

To quote D. North (1990), the Korean economy has experienced “discontinuous and evolutionary change.” Such a drastic “shift in the relative price system” of economic institutions has brought about great turmoil and uncertainty in economic organizations. It is almost without saying that, to survive, firms have striven to improve their organization to better adapt to this sudden change in the institutional environment.

The IMF bailout fund at the end of 1997 was followed, first of all, by innumerable reform measures by the government in economic, social, and political institutions. To cure the chaebol disease using the power of market competition, the government launched a bold liberalization package in the product and capital markets and allowed foreign capital and products to freely compete in the domestic market. It also made a large-scale revision of corporate and security laws to enhance transparency in accounting and business management. While the government has carried out institutional reforms through legal and regulatory changes, it has also meddled into “big deal” operations, or more exactly large-scale business swaps among the chaebol. The government, who is impatient to wait and see the results of chaebol
restructuring, also is indirectly engaged in workout programs through which banks are supposed to lead the chaebol’s restructuring process. In fact, however, governmental authorities such as the Financial Supervisory Board have taken the initiative, making essential decisions in this corporate recovery program. The debt-equity ratio guideline of 200% was suggested by the government and subsequently became a \textit{de facto} rule, a benchmark for capital restructuring.

It is still too early to evaluate the appropriateness of these policies. Regardless of whether they are well implemented or not, however, corporate reform policies should have a tremendous impact on enterprises, including the chaebol.

We are still not sure whether this change in both formal and informal institutions will trigger the actual dismantling of the chaebol, thus setting up a new milestone for the Korean economy. One sure thing, however, is that the chaebol can not survive unless they change fundamentally. To see how much they will change, one needs to take a look at the chaebol before and after the IMF bailout.

- How many subsidiaries have been cut off?

First of all, as a rough indicator of restructuring, we must look at the change in the number of affiliates. According to many business gurus, the chaebol are overly diversified and they need to be more focused. It does not mean, however, that they should give up their diversification strategy, instead focusing narrowly on a core sector as big businesses in the
advanced economies do (Khanna and Palepu, 1997, 1999). Rather it has been suggested that the chaebol should adjust their diversification portfolio according to newly evolving market conditions.

In the restructuring plan announced by the chaebol, they pledged to significantly reduce their number of affiliates. From 1998-early 1999, they closed, sold, and merged many subsidiaries.

Has the over-investment problem been alleviated to a great extent?

The answer to this question is probably “no.” In many industries subject to the big deals, negotiations between the firms targeted for the deals are still at a standstill. As a result,
it may take another year or more to see the final completion of the deals. Only in the semiconductor industry has there been a successful merger agreement (between Hyundai and LG), already leading to the creation of a new company.

- To what extent have the leverage ratios been lowered?

The *chaebol*’s debt-equity ratios, which had increased to levels well beyond the international norm, have now stabilized at much lower levels compared with 1997 and before.

In particular, the 5 big groups, which have strongly been urged to lower their debt ratios to below 200% by the end of 1999, have done remarkably well. Samsung achieved that goal in June 1999, earlier than it had planned. The big 4 *chaebol* (Daewoo, now under the workout program, is excluded), had lowered their debt ratios below the government’s 200% level as of the end of December 1999.

*Figure 6* Debt-Equity Ratios of 5 Biggest Groups

<table>
<thead>
<tr>
<th></th>
<th>97.1</th>
<th>98.1</th>
<th>99.1</th>
<th>99.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyundai</td>
<td>578</td>
<td>449.3</td>
<td>340.8</td>
<td>152</td>
</tr>
<tr>
<td>Daewoo</td>
<td>474.4</td>
<td>526.5</td>
<td>588.2</td>
<td></td>
</tr>
<tr>
<td>Samsung</td>
<td>371.3</td>
<td>275.7</td>
<td>192.5</td>
<td>146</td>
</tr>
<tr>
<td>LG</td>
<td>512.1</td>
<td>341</td>
<td>246.5</td>
<td>147</td>
</tr>
<tr>
<td>SK</td>
<td>458.6</td>
<td>354.9</td>
<td>227.3</td>
<td>133</td>
</tr>
</tbody>
</table>

200% debt-equity guideline imposed by the government

3. Chaebol Restructuring Revisited : A Coasian Perspective 173
In the meantime, the 6-30th biggest chaebol have already concluded Corporate Restructuring Agreements (CRAs) with their main banks. Through the sell-off of non-core businesses, unnecessary real estate and foreign capital inducements, they are trying hard to meet the ratio agreed to in the CRAs. Given their current level of debt and lesser likelihood of profitable recovery, some groups may default in the near future. Then, they may be subjected to the workout program or be liquidated.

As shown above, at least in terms of the debt ratio figures, debt restructuring may already have been successfully achieved. However, it remains to be seen whether the application of the 200% guideline to all chaebol is appropriate. After learning how the chaebol managed to lower their debt-equity ratio to 200%, one could be more reluctant to praise the government’s debt restructuring policy. We will explore this issue in more detail in later chapters.

- To what extent have debt-guarantees been cleared?

The chaebol’s debt-guarantee practice was criticized as one of the primary sources for their over-borrowing behavior. That system, frequently called “mutual-payment guarantees” in which chaebol subsidiaries promised to reimburse lenders if their sister firms defaulted on a loan, has been prohibited. The 30 biggest chaebol are required to clear such debt-payment guarantees completely by the end of March 2000, which is one of the conditions outlined in the IMF agreement.
So far, the clearing of debt-guarantees has been right on schedule. Through diversified ways such as the redemption of debts, the provision of more collateral, and risk-adjusted interest rate increases, the 30 biggest chaebol have succeeded in dramatically lowering the amount of debt-guarantees from 26.9 trillion won in April 1998 to 9.8 trillion won in April 1999. As of April 1999, the remaining debt-guarantees accounted for only 9.7% of their capital. In particular, the 5 biggest chaebol have reduced the size of their debt-guarantees faster than the smaller groups. We guess that the chaebol will not experience any serious problem in clearing up their mutual guarantees by the end of March in 2000.

<Figure 7> Change in Debt-Guarantees of the 30 Biggest Groups
• Have the *chaebol* increased their profitability?

The profitability of the *chaebol* has not improved. Rather, it worsened in 1998 relative to 1997. While sales increased, profits decreased, indicating keen competition and “dumping.” In the case of the biggest 6-30, even sales decreased severely.

Recently, however, some indicators such as consumption, investment, and GNP growth rates have shown signs that an economic turnaround had already started in 1999. A large portion of *chaebol* subsidiaries are expected to show a sharp increase in sales and profits, triggered by the economic rebound.

It is too early yet to conclude that the *chaebol* have overcome their financial liquidity problems as we witness more difficulty in Daewoo. Instead, it would be more proper to say that the Korean conglomerates are still walking on
thin ice.

*Figure 9* Sales of the 30 biggest *Chaebols*

*Figure 10* Profits and Profit Rates of the 30 biggest *Chaebols*

3. *Chaebol Restructuring Revisited: A Coasian Perspective* 177
In what respects has the corporate governance system improved?

There is no established consensus on what can be characterized as a “good” corporate governance structure. However, it is generally agreed among researchers that Korean corporations, especially the chaebol, lack some essential elements of a good system. Without sufficient legal protection for investors, for example, chaebol “owner-managers” have been suspected of expropriating other investors such as small shareholders and debt-holders.

Since the end of 1997, the government has launched a
comprehensive package of corporate governance reform, including strengthening minority shareholders’ rights, allowing the easy transfer of shares, keeping the election of directors relatively independent of the controlling owners, and giving shareholders extensive powers to sue directors for violations of fiduciary duty. In addition, as a way to enhance managerial transparency, the 30 biggest business groups must release consolidated financial statements that will make more elaborate provisions of the financial information on the chaebol. This time, the government’s special interest in corporate governance is unprecedented and can be a differentiating factor from the previous policies of the 1980s and early 1990s, which were mainly concerned about industrial restructuring.

- Has the internal (or cross-subsidiary) transaction practice changed at all?

During the 1970s and 1980s, internal transactions such as product and financial trades between affiliated companies were taken for granted. This practice is associated with group management, in other terms, flagship management. However, such practice has increasingly been seen as illegal. It is the result of the rising anti-chaebol sentiment among the general population. All practices regarding the chaebol are always seen as inefficient. Professor Coase (1972) succinctly expressed his preoccupation with inefficiency in this explanation: “If an economist finds something – a business
practice of one sort or another – that he does not understand, he looks for a monopoly explanation.”

<Figure 12> The Amount of Fines Charged Against Illegal Internal Trades

At this time, we do not know much about internal trading, and cannot reach a decisive conclusion, even in theory. What we do know, however, is that whether the practice of cross-affiliate trading promotes or impedes competition in markets cannot be determined without an in-depth investigation of individual cases at issue.

Recent statistics show that still great deals of cross-subsidiary deals are going on. The Fair Trade Commission and Tax Agency are together giving the chaebol an unprecedented amount of fines for illegal transfer pricing

180 Korean Chaebol in Transition : Road Ahead and Agenda
and cross-subsidies. Any sizable gap with market price is, without exception, considered illegal.

• Have noticeable changes in the management of big businesses taken place?

Many changes in the chaebol have been occurring. First of all, the too-big-to-fail mentality is gone. Daewoo, which was the second largest group, is now undergoing a very thorough dismantling process. In all, almost a third of the 30 largest chaebol are experiencing severe financial distress and are in the process of bankruptcy, court settlement or receivership, or debt-workout.

Most, but not all, current managers have been expelled from the chairmanship. Other owners, exempt from legal responsibility, are being accused of lacking “social” responsibility because of their misdirected investment decisions.

All this upheaval has created a great earthquake on the chaebol map in Korea. Many chaebol have come and others have disappeared. It would be very hard for us to guess which chaebol will ultimately be the winners in this survival game.
III. Changes in Chaebol’s Political and Economic Environments

1. Capital Markets and Corporate Finance

The large chaebol are expected to give up the benefits they used to enjoy because of their size. Banks are adjusting the chaebol’s credit limit downward. Now, the 5 biggest groups are prohibited from issuing corporate bonds and this regulation will continue to apply in the future. To lower their biased credit concentration and its resulting risks, banks are determined to gradually reduce their loan to the large chaebol, particularly the top 5.

In judging whether a debt is good or bad, banks no longer look as to whether or not debtors can pay the interest on the loan. Instead, they are more concerned about looking for criteria such as growth potential or long-term profitability. This new practice, initiated by the Financial Supervisory Commission, has had a very detrimental effect on debt-ridden chaebol with low profitability. Chaebol of the same size are now being given quite different credit ratings. In the past, this credit discrimination occurred only between the chaebol and SMEs. Presently, however, it is happening even between large chaebol, not excluding the top 5.

Capital markets, which are more active than ever, are already factoring in this change. Market evaluations of big businesses’ restructuring efforts vary widely. Successful business groups carrying out restructuring plans on schedule are
enjoying many benefits, such as increasing stock prices and also decreasing interest payments on their loans, bonds and commercial papers. For those chaebol seen by the market as failing in restructuring, exactly the opposite happens. In this respect, for some business groups there is no other way than showing some positive outcome from restructuring in order to restore their fallen or lost credibility.

Non-bank financial institutions (NBFI) owned by the chaebol will not be able to escape special audits by regulatory authorities and more stringent monitoring by independent directors. Once regarded as a financial tool to operate so called “internal capital markets” within the chaebol, chaebol-owned NBFI s will have to establish a special kind of board of directors in which external directors must represent more than half of the total. They must keep more stringent disclosure rules, providing more information on investment and asset management to the public.

If a chaebol failed to lower its debt-equity ratio below 200% by the end of 1999, what sanctions were imposed against it? Banks cut down or withdrew their loans. They also put the chaebol not having kept their promises, into the workout program. But the harshest penalty probably will come from the capital market itself. The fact that business groups failed to fulfill their agreement with their main bank may trigger a significant downgrading of credit. This indicates that a “penalty from the market” can be much more painful than a “penalty by the government.”

3. Chaebol Restructuring Revisited: A Coasian Perspective 183
2. Product Market and Foreign Competition

In accordance with the IMF conditions for bailout fund provisions, the policy of import-source diversification, whose main purpose was to restrain the excessive import of Japanese products, has been curtailed since July 1999. Many products, such as Japanese cars and electric appliances, are now being imported on a large scale. Korean manufacturing companies, who used to benefit from monopolistic and oligopolistic conditions, have lost a significant share of the market due to their lack of competitiveness.

This opening of product markets is having a great influence on the diversification strategy of Korean corporations. Now, they have to scale down their business portfolio and sell-off or close divisions that do not have internationally competitive technology or other comparative advantages.

3. Market for Corporate Control and Corporate Governance

One of the noticeable changes in the aftermath of the IMF crisis is the increasing participation by foreign investors in the equity structure of Korean firms. Due to the lifting of investment limits for foreigners, the amount of blue chip shares owned by foreign investors is gradually increasing. In particular, their investments are concentrated in chaebol holding companies, leading domestic banks, and high-tech
companies. In some companies, foreign investors’ share of equity has already surpassed half of total equity, emerging as a potential threat to domestic corporate managers (and owners).

Foreign institutional investors often make strategic alliances with domestic non-governmental organizations (NGO), calling for more transparency in the management and accounting practices of the chaebol. Sometimes, they do not have a direct interest in corporate control, but existing management cannot disregard their voice because they own a high proportion of the shares.

Other important factors in fundamentally transforming corporate governance in the chaebol are the more frequent investigations and sanctions by the government (more exactly, the Fair trade Commission) against cross-affiliate transactions within the chaebol. Intra-group trading in the product and financial markets was taken for granted in the past. Nowadays, however, the FTC has made this practice illegal, and furthermore considers as illegal any transaction that deviates from market prices.

This “hard stance” on the part of the FTC will be maintained for the time being. In addition, it is very likely that even applying rules of reason to the deals will not refute the FTC’s charges against internal deals. As a result, the chaebol have no choice but to adopt a new group management governance system, i.e., group-wide product and financial trading, that must satisfy efficiency and legality conditions at the same time.
Despite much stronger legal protection of their property rights, a result of newly revised corporate laws and stronger enforcement by the government, foreign investors are still skeptical about this *chaebol*-specific practice. This deep-rooted distrust is evident in the fact that in deciding where to invest, they put higher priority on whether companies have a transparent management system rather than on how well their balance sheets appear.

**IV. How Will the Chaebol Determine What to Produce?**

Given the revolutionary changes in the legal and institutional environments as well as their enforcement, one can expect the *chaebol* to adapt to this shift in business constraints. Facing fundamentally different “relative price systems,” they must realign their business strategy, capital structure, and governance systems to better fit the new business conditions. In economic terms, they must choose a new strategy to meet the changed costs and benefits of running groups.

**1. Zero vis-à-vis Positive Transaction Costs of Using the Market**

Business specialization, or focusing on a “core competency” in terms of modern business strategy, has been
an orthodox policy of big business restructuring and, more extensively, industrial restructuring. However, without appropriately developed market conditions, this suggestion may be wrong and lack any substantial argument. Let’s see why it is so.

Coase (1937), in an article that was cited by the Royal Swedish Academy of Sciences in awarding the Nobel Prize for economics in 1991, argued that there were costs associated with the use of the price mechanism. What the prices are has to be discovered. There are negotiations to be undertaken, contracts have to be drawn up, inspections have to be made, and arrangements have to be made to settle disputes, and so on. These costs have come to be known in the economic literature as “transaction costs.”

Their existence implies that methods of coordination alternative to the market, which are themselves costly and in various ways imperfect, may nonetheless be preferable to relying on the pricing mechanism, the only method of coordination normally analyzed by economists. It was the avoidance of the costs of carrying out transactions through the market that could explain the existence of the firm in which the allocation of factors came about as a result of administrative decisions (Coase, 1992,

2) Coase’s original article (1937) defines transaction costs as “the costs of using the price mechanism,” “the costs of carrying out transactions by means of an exchange on the open market,” or simply “marketing costs.”
There also exist the costs of organizing transactions within an organization. Inside the firm, entrepreneurs direct resource allocation, not necessarily through the price mechanism. In the process, they may make some coordination mistakes. More specifically, as a firm becomes larger, it faces rising costs because of the increase in administrative costs, more mistakes and failures to allocate resources wisely, and more difficulties to coordinate because of more diverse activities.

The benefits and costs from operating a firm determine the optimal size of a firm. This also answers the question of “why is all production not carried out by one big firm.”

Extending the theory of the firm in a more specific context, one can find a persuasive explanation as to how the chaebol were formed and in what way they will evolve in the future.

From Coase’s explanation of the firm, the policy suggestion of specialization might be based on the unrealistic assumption that transaction costs are zero in the market context. Basically, the division of labor may be limited by the extent of the market (Stigler, 1970). In this sense, specialization may be limited by market conditions, necessarily including market size. The market or institutional context, in effect, determines the transaction costs of carrying out a transaction in the open market.

How do the chaebol determine what to produce? Here Coase’s (1937) argument – firms exist only where they perform better than the market can – can be, without many
modifications, applied to the explanation of why the *chaebol* have grown to what they are now. By comparing *chaebol*-like governance with market governance, one can choose the better governance structure according to relative transaction effectiveness. To the right of the dotted line in Figure 13, firm governance as in the *chaebol* works better. To the left of the dotted line, market governance is more effective.

A commonly forgotten point here, though, is that it is one thing to explain when and why the *chaebol* may perform better than markets can, but quite another to assert that they will perform perfectly. Inefficiency will be normal, not exceptional in this peculiar type of *chaebol*-specific internal organization.

<Figure 13> Transaction Difficulty and Choice between

![Diagram of Transaction Difficulty and Choice between Chaebol-like Firm and Market](image-url)
Market and Firm Governance

2. Decrease in Transaction Costs

The dispute on whether transactions costs are zero or positive is not the real issue here. More important is which way the (certainly positive) transaction costs for using the price mechanism will move. As was clearly shown in the previous chapter, \textit{chaebol}-related regulations and institutions are moving in the direction of decreasing the costs of using markets and at the same time increasing the costs of using group management, such as the \textit{chaebol} governance system. In Figure 14, the curve indicating the overall effectiveness of \textit{chaebol} governance shifts downward, while the curve for market governance shifts upward. Thus, after taking into consideration some fundamental changes in the institutional and regulatory frameworks, one can pinpoint the critical point for choosing between market and \textit{chaebol} governance, which shifts from A to B (See Chapter 4). As a result, one would certainly expect the \textit{chaebol} to perform market transactions more frequently than they did in the past.

If economic theory on firm organization is formulated well enough, it will enable economists to predict in which direction the \textit{chaebol} are moving. If the predictions end up being wrong, it will be because the primary constraints, according to which Korean big business optimize their behavior, were not specified properly.

There is now plenty of evidence suggesting that the \textit{chaebol} are rapidly replacing transactions within internal
organizations with market-type transactions: the breaking up of

*Figure 14* Shifting Effectiveness of Using the Market vis-à-vis the *Chaebol* Organization

chaebol into small “sub-chaebol,” the sell-off or closing of marginal subsidiaries, various types of divisional spin-offs, and the growing popularity of outsourcing (or contracting out) in procuring material and services.

While it is beyond our knowledge to estimate the exact extent of substitution of market for group management, we suspect that not only is this substitution process not over yet, but that it will continue rather rapidly. Moreover, we expect that after this restructuring, booming Korean business groups will take a much different form than before.

3. *Chaebol Restructuring Revisited: A Coasian Perspective* 191
V. What Debt–Equity Ratio Level Is Optimal?

1. Modigliani-Miller Theorem and Its Importance

About 40 years ago, Modigliani and Miller (1958) published an interesting article suggesting that “the market value of any firm is independent of its capital structure” under some strict conditions that neither default risk of firms nor corporate tax exist and that the capital market is efficient.

Looking carefully into it, one can argue that this theorem, named after its authors (and hereafter the MM theorem), is just a capital market corollary of the Coase theorem. In other words, with “zero transaction costs” in capital markets, the gearing ratio of firms does not matter at all in determining corporate value. This means that if there is no serious costs arising in capital markets from converting debt into equity or, going the opposite way, equity into debt, whether a company is leveraged or not does not affect its value.

Paradoxically, the real value of the MM theorem can be found when one looks at “positive transaction costs” in capital markets. Actual capital markets determine differential transaction costs depending on the use of debt or equity. For example, the government gives differential tax treatment for interest and dividend payments. The risk of bankruptcy will go up with higher degrees of leverage. More importantly, the choice of debt vis-à-vis equity has a critical impact on the corporate governance structure.
For these reasons and others, the ultimate level of debt-equity ratio can be very important in determining firm value. Given the imperfections in capital markets and the unpredictability of regulatory action, it is very difficult to tell which level will be optimal. Instead, all we learn from corporate finance theory is that each company has its own unique capital structure (say, debt-oriented, equity-oriented, or a hybrid form) that is best aligned to its market and institutional conditions.

2. De-Leveraging of Capital Structure

There is still some debate on whether Korean big businesses are really over-leveraged, in other words, whether their leverage level is higher than “the optimal one” in the
context of the Korea-specific financial environment. Some economists argue that the average debt ratio of Korean firms is much higher than their international counterparts. After seeing the low debt ratios in developed economies, they instinctively eye Korean firms’ above-average debt ratios with some skepticism. In addition, the fact that many Korean big businesses have gone bankrupt shows that the chaebol have borrowed too much.

Others on the opposite front argue that the presumed anomaly in such a debt structure is not firmly grounded on a comprehensive analysis of capital markets and institutions in Korea. They say that it is undeniable that debt financing has played an important role in supplying “oil” to the Korean growth machine. In retrospect, they have taken the past practice of debt financing for granted. Despite their affirmative position on debt financing, however, they share with others the recognition that important changes in capital markets and institutions, which we observe now, adversely affect the old practice of debt-oriented financing.

First of all, financial institutions are applying more stringent criteria in evaluating debtors’ credit-worthiness according to their debt ratio. They are more reluctant than ever to extend corporate credits if a firm’s debt ratio is very high. Since the financial crisis, they have witnessed a series of giant conglomerate bankruptcies, including even Daewoo, the number-two chaebol. As a result, it has become necessary to take the debt ratio as the first priority in judging credit worthiness.
As we can see now, financial markets are almost completely open, and foreign investors are more actively participating in corporate finance. The impact of their investment on domestic enterprises is enormous. Higher bankruptcy risks also change the behavior of international financiers. Their investments are very sensitive to the financial status of firms. Those investors who have seen low debt-equity ratios in developed countries have good reasons to care much about the high debt ratios in this risky country in the process of economy-wide restructuring.

In addition, large debtors like the chaebol will be subject to new and strict ceilings on the total amount of loan provisions to a single group, which will match international standards.

Another factor responsible for cost increases in debt-financing are the criteria used by financial institutions in judging whether a loan is performing or not. In the past, as long as its interest was serviced regularly, a loan was not categorized as non-performing or as a “bad” debt. Now, it is a completely different story. Banks are putting more emphasis on “forward looking criteria,” such as the future repayment capability of debtors, and less on the present serviceability of the interest. If any firm shows uncertain prospects of recovery, it will be classified as a non-viable firm.

The last but not least important factor responsible for increasing the cost of debts was the threat of sanctions by the government against any chaebol if they failed to meet the
200% debt-equity ratio requirement. It is true that a number of questions regarding the efficiency of that requirement have still not been answered in financial circles. Besides the legitimacy question, the expected costs from formal or informal sanctions will be more painful than one can expect. In the end, it would not be in the chaebol’s best economic interest to ignore the seemingly misguided guideline (we will discuss later why it is so).

These changes in financial institutions and capital market regulations alter the relative price for Korean business groups of using debt compared with equity. It is evident that chaebol size per se will not be an advantage in the stock and bond markets and that the chaebol are all in need of capital restructuring to reduce their leverage.

*Figure 16* The Shift in the Optimal Leverage Ratio
Returning to the MM theorem, we can compare the pre-IMF with the post-IMF cost-benefit conditions for debt-equity use. The corporate value curve, which determines the debt-equity ratio, shifts to the left as institutions in the capital market undergo changes. The optimal level of leverage also decreases. Unfortunately, one can not tell how low the exact level of \((D/E)^{new}\) must be. But the right solution for capital restructuring is to lower the debt ratio, in other words, “de-leveraging.”

Over the last two years, big businesses have made efforts to reduce their debt-equity ratio. According to statistics, it seems that they have shown some progress in lowering the gearing ratio (See Chapter 2). However, it may not be the real story, but a kind of financial illusion.

There are three ways of reducing the debt-equity ratio, and they complement each other: to lower the debt, to increase capital, and finally to convert debt into equity. The first option has not worked so far.

To meet the deadline for debt reduction, the chaebol have had no choice but to issue new equity. However, a significant part of newly-issued equity has been acquired by subsidiaries of the same business group. In particular, the system of cross-shareholding has allowed this financial maneuvering to go on. The debt ratios of the chaebol declined considerably in the one and a half year since the end of 1997. Not real declines in the amount of debts, but increases in cross-ownership of equity have contributed to lowering the debt-
equity ratio. Has this lowered the risk of bankruptcy for the chaebol? Has this increased the cash flow of groups, hence increasing their corporate value? The answer to these questions is “no.”

Once again, from the MM theorem one can conclude that it is the earning power, not the extent of leverage, that truly determines firm value. As Miller recently put it when he testified in an S&L trial, “The firm is like some gigantic pizza, represented by its underlying earning power. You can’t increase the value of that pizza by cutting it up into different slices- in this case, of debt and equity securities.” (Fortune May 25, 1998)

<Figure 17> Change in Assets, Capital, Debts and Debt Ratios of the 30 Biggest Groups (Financial and Insurance Firms Excluded)
More serious was the problem created by the government pressuring the chaebol too aggressively to reach the 200% debt ratio level in a short period of time. The financial authorities, not the companies, dictated the debt ratio level. The nature of the capital restructuring process exacerbated the “cosmetic” debt restructuring problem of the chaebol, who had no alternatives but to meet the deadline, the end of 1999.

VI. The State’s Role in Corporate Restructuring

The government has been advised to adopt corporate
restructuring policies that are firmly based on market principles. In response to this advice, the government has proclaimed its will to stay on that track. However, in the process it has meddled deeply into what is regarded as purely business decisions, such as levels of diversification and capital structures. In the end, to speed up chaebol restructuring, the government has pushed for early reductions of debt-equity ratios below 200% and large business swaps between the chaebol, what the public called “big deals.” If a big business was not able to abide by the debt guideline, it received severe penalties from its main banks, in fact from the government who owns and directs the banks. To complete the big deals, it forced both the selling and buying parties to accept the swaps. Whether it will produce any synergy and integration effects, as was expected, remains to be seen.

Facing the urgency of debt restructuring, for the last two years the chaebol have been rushing to sell, but few have wanted to buy. When financial intermediaries are not well developed, the pricing of assets for sale is almost impossible. As a result, the “restructuring market” breaks down and few transactions occur. This is what happened in Korea during the economic crisis. Khanna and Palepu (1999) explain this as a classical example of what economists call the “lemon” problem.3)

3) It works like this: If a buyer does not have reliable information about the quality of a specific product, he will pay only an amount that reflects the average quality of similar assets in the market. But the value is insufficient to pull sellers of high-quality products into the market. Their unresponsiveness

200 Korean Chaebol in Transition: Road Ahead and Agenda
The main problem in corporate restructuring is that the institutional context is neither restructured nor conducive to restructuring. Of course, it is well understood that the government could not wait and see until the institutions for corporate restructuring were properly set up. Public economics, particularly the Pigouvian lesson, shows that when market failures occur, the government necessarily meddles in the market. But that approach would presuppose that government failure will be negligible, quite less than market failure. Sometimes, however, interventions by the state are not successful, making restructuring more costly to the public, and hence to let private negotiations dictate the outcome is the best policy.

A good example can be found in the two contrasting cases of the government-driven and market-driven swap deals. The latter deals, not subject to government intervention during negotiations, have been completed much quicker than the former, some of which we are still uncertain which way they will go.

Now entering a new millennium, the government needs to make a fundamental shift in economic restructuring strategy. We are just entering the era of the “new economy,” whose distinguishing characteristics is the burgeoning of IT (Information Technology) and knowledge-based industries. The “digital” revolution, highlighted by the Internet, is trans-
forming the way we exchange goods, services, and even intellectual property. It alters markets as well as technology in every respect. Considering these changes and their implications on the economy, the government needs to give up its role as a “grabbing hand,” which directs resource allocation in the economy. To confirm the necessity for this policy turnaround, it is helpful to recall that intervention by the state in the financial as well as manufacturing sectors was one of the major causes of Korea’s recent economic hardship.

Instead, the state needs to build “restructuring-friendly” institutions. In other words, it must strive to be a “helping hand” that takes much care to strongly support, not control, the economy.

More specifically, the government must make efforts to reduce the economy-wide transaction costs for enterprise readjustment. Generally, heavy taxes, complex regulations, and uncertain laws are often mentioned as primary factors that hinder swift and sustained restructuring. In this respect, Coase has a point that policy makers need to keep in mind:

If the costs of making an exchange are greater than the gains which that exchange would bring, that exchange would not take place and the greater production that would flow from specialization would not be realized. In this way transaction costs affect not only contractual arrangements, but also what goods and services are produced. (Coase, 1992,

202 Korean Chaebol in Transition : Road Ahead and Agenda
In this respect, we need to look at progress in the big deals more carefully. The government pushed the chaebol into a corner by urging them to finish the deals by a specified deadline, otherwise it threatened to use the state-controlled banking system to starve the chaebol of money. Using Coase’s insight, one comes to realize that there might exist two explanations for why the chaebol delayed the business swaps: transaction costs may be extremely high in swapping businesses between chaebol, or the benefits from these transactions may be negligibly low. Which argument is more persuasive?

A careful review of the automobile industry’s big deal might help us answer this question. As one of the original big deal packages, the auto-manufacturing subsidiary of Samsung was supposed to be taken over by Daewoo. In the process of negotiations, however, both parties failed to narrow the large gap between the asking and offering prices. In my view, the big deal policy and its enforcement uncertainty increased transaction costs prohibitively, contributing to the ultimate failure of the deal.

For instance, it was very uncertain whether the acquiring company would be entitled to stop producing the existing SM5 model and to layoff workers after the takeover. It was mainly due to uncertain rules of law and to political intervention in the process. Despite a clause to this effect in the labor law, the right to layoff workers after M&As was
not taken for granted, but instead was determined by political considerations independently of the firms at issue.

\[
\text{Asset Value of (Physical) Facility} \\
\quad + \text{Transaction Costs needed for Property Right Exchange}
\]

\[
\text{Total Price of the Firm}
\]

The exercise of the above-mentioned rights would necessarily change the ultimate price of the firm on sale. If they were not exercisable, Daewoo could not offer a higher price for taking over the firm. In that case Samsung Motors would be like land in a greenbelt zone whose owners are much restricted in exercising property rights. Unfortunately, no one was sure of the managerial property rights to terminate or change the production lines, or of the right to layoff workers after the merger. Even the mediating position of the government on this issue was very hard to predict at that time.

The above case illustrates that the costs arising from an imperfect delineation and enforcement of property rights might be even greater than the physical costs of a factory. It highlights that such legal uncertainty might prohibitively increase the costs of restructuring and also that the rules of economic institutions must be delineated and, more importantly, enforced as they are specified.

Coase (1960) has argued that in the absence of transaction costs the assignment of property rights does not matter from the viewpoint of efficiency because, once the rights are assigned, parties can trade them in the market. This important result has shown that, in the absence of transaction costs arising from an imperfect delineation and enforcement of property rights.
costs, the efficiency concept applies not only to the market for goods and services, but also to the market for property rights. One implication of this result is that governments have to ensure that property rights are defined as fully and clearly as possible. In other words, governments have to act to minimize the uncertainty about property rights to the extent possible. The other implication is that in the case of externalities, governments need not interfere in private transactions through taxes or subsidies because the parties involved would be able to reach the optimal solution privately.

VII. Post-Chaebol Corporate Map

1. Evolutionary Change in the Chaebol

Despite their intrinsic weakness, it is almost undeniable that the big businesses, or chaebol, have led Korea’s economic growth. The experience of the recent economic crisis, however, tells us that the chaebol, as they are, will not be able to continue taking on such leading roles. Considering such a big shift in the market and institutional environments (see Chapter 4), they need to fundamentally change the way they run their businesses in order to survive in the future. In addition, the digital revolution, with its dramatic reduction in information costs (a major component of transaction costs) will have a great impact on group management. While the IT
revolution acts to expand the boundaries of firms, on the other side of the coin it also helps expand market transactions vis-à-vis firm organization. On the balance, the latter effect will dominate the former one. In the end, most of those changes are evidently market-enhancing, which inversely acts to increase the costs of running a number of businesses under a single umbrella.

The most influential factor for changing the cost of business group management, as it were, was the condition of competition in the market. Both in domestic and international markets, chaebol groups are being exposed to competition at a higher level than ever before and the extent of competition will be intensified further as time goes by. Again, one needs Coase’s insight. He emphasized that it is the degree of competition that ultimately determines the final configuration of the firm.

A firm will tend to expand until the costs of organizing an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organizing in another firm. (Coase, 1937)

The first test to determine the advantages of firm trade over market trade has already been well understood among economists. On the other hand, the second test, which requires a firm’s superiority over another firm, has not been
given enough attention. The condition that a firm is better at organizing transactions than the market does not guarantee the emergence of the firm. If it fails to do so more efficiently than another rival firm, it can not stand by itself and avoid being integrated into the market system. In other words, the transactional efficiency of firms can be a function of both the market and its competition.

The competitive environment has significantly changed since the breakout of the financial crisis. The increasing pressure from global competition forces the chaebol to change the structure of group management in the direction of “de-conglomeration” of businesses, “de-leveraging” of the capital structure, and “de-empowering” of the controlling families. However, it is not forcing the chaebol to turn into an opposite image of the present configuration: an extremely specialized company (no diversification at all) with a purely equity-financed capital structure (no debts at all).

Without exact knowledge of the organizational response to the changing constraints, it would be premature to conclude how optimally the chaebol will react to the shifts in the constraints or choice set. One thing we are sure of, however, is that internally-organized transactions are more costly to use while market-type transactions are cheaper. Hence, market transactions will definitely increase. What will be the typical evolutionary path of a chaebol in the future? To accommodate the market pressure, it will take a different organizational form. The chaebol will be a more loosely

3. Chaebol Restructuring Revisited: A Coasian Perspective 207
linked fe-deration of affiliated subsidiaries.

First of all, many satellites or subgroups will be spun-off from the entire chaebol. This process can be called FBOs (Family Buyouts). The degree of mutual dependence among the subgroups will depend on chaebol-specific conditions. Furthermore, at the firm level, managerial independence will be emphasized. Traditional MBOs (Management Buyouts) will take place frequently. Instead of direct subsidization, only profit-oriented transactions will be allowed. In this sense, subsidiaries will become affiliated in a new way, in other words, not financially but strategically.

In addition, non-performing or non-profitable divisions within a firm will be shed or spun-off into independent companies. At this level, diverse types of EBOs (Employee Buyouts) will be taking place. Statistically, this type of spin-off from the mother company has taken the highest proportion. How deep strategic alliances will continue between the divesting and divested companies will depend on the benefits of internal transactions, or strategic relatedness.

*Figure 19* Group-wide Spin-off (Group, Company, and Divisional Level)
In addition to the de-diversifying efforts, a large part of the functionally or vertically integrated tasks inside the chaebol will disappear. For example, several functions organized inside the chaebol will be spun-off to become subcontractors or replaced by independent outsourcing. Any function such as advertising, R&D, finance, labor management, intermediate parts and material procurement, and general management can be considered as candidates for outsourcing. In this case, whichever is most cost-effective between internal procurement and contracting out will prevail.

De-diversification and de-leveraging are linked to the de-empowerment of current management. For example, debt-equity conversions, which are a popular method used in the debt restructuring process, dilute equity concentration and ultimately affect the ownership structure of enterprises. Many manager-owners have already lost their control rights.

3. Chaebol Restructuring Revisited : A Coasian Perspective 209
after making debt-equity swaps with creditor banks.

Small shareholders and other investors are getting more legal protection than ever as one can see from the recent revisions in corporate, securities, and accounting regulations. Internal *chaebol* trades will be exposed to and tested by markets and regulatory agencies such as the Fair Trade Commission (See Chapter 4). As a result, managerial and accounting transparency will be significantly enhanced as well as management transparency and information disclosure.

In particular, Korea must follow the so-called global standards of governance and accounting structure since any trade-oriented country cannot avoid being nested in the global economic system. More important is the issue of the speed of adjustment in institutions. The more beneficial the reform of the governance structure, the more firms will participate voluntarily in the reform. It is firms themselves that benefit most from governance restructuring.

2. Agenda for the *Chaebol* : More Market Interface inside Business Groups

Coase (1937) depicted firms as economic organizations where market transactions are eliminated, and instead the entrepreneur-coordinator directs production. For actual transactions, however, it would be very hard to clearly distinguish internal transactions from transactions in the market. Even inside firms, market interface, like spot market trades, can
take place. 4) Conversely there are many instances of market transactions that resemble internal transactions typified inside a firm.

As we see, the market environment is changing in such a way as to increase the relative price of using internally-coordinated systems, like business groups, to a great extent. The most effective response of business groups to this external business condition is to adopt a style of management that is more market-based. In other words, they need to bring more “market-ism” inside the chaebol system. Khanna and Palepu (1999) have suggested the abandonment of the traditional “command model,” whose headquarters were deeply involved in directing resource allocation inside business groups. Instead, they suggest a new model for headquarters that actually provide a soft infrastructure – organizations such as venture capital funds or leveraged buyout firms.

<Figure 20> Need for Market Interfaces Inside Business Group

4) Regarding this matter, Simon (1991) explains that “the possibility of using internal division-by-division balance sheets, and internal pricing in negotiation between components of an organization further blurs the boundary between organizations and markets.”
So far, have corporate headquarters played the role of “Robin Hood,” taking from cash-rich divisions with poor investment opportunities and giving to cash-poor divisions with good investment opportunities? Or have they practiced a kind of (dysfunctional) “socialism” by reallocating resources regardless of the ability of divisions to use those resources productively? It is not easy to tell which scenario is more credible. As many chaebol critics argue, however, it is true that chaebol managers have predominantly been owners and many, but not all, subsidiaries have had negative earnings. Hence it would be very hard to find counterexamples to the Robin Hood model as the dominant one in capital re-allocation inside the chaebol.

The unlimited use of so-called “internal capital markets” could be very risky. In some ways it needs to be used smartly and selectively. Khanna and Palepu (1999) again make a distinction between two types of inter-group financial transactions – the financing of new ventures and the financing of ongoing operations. They believe that the financing of businesses is indeed best left to commercial banks and capital markets. In financing new businesses, however, they advocate that business groups can create significant value by providing venture capital and should retain that more focused role until independent market institutions develop.

By adopting a holding company structure and eliminating cross-holdings among individual group companies, business
groups can significantly mitigate investor’s concerns about transparency and accountability. One important principle is that the headquarters should not interfere in the day-to-day operations of their ventures. If they did, the groups could have so-called “corrupted” forms of organization as Williamson (1975) expects. Business groups need to give their units greater freedom in running their operations. Operating decisions such as executive compensation must be delegated to the subsidiary level. Business units or divisions must be evaluated based on a “profit center.” Money-losing businesses should be closed rather than subsidized. If not, they should be charged for illegal insider trading or violating the antitrust law. In this sense, managers should learn the know-how to give up losing businesses or businesses to which the head office cannot add value.

The groups also need to adopt a wholly different capital structure. They should be based more on equity financing. In theory, to undertake very risky projects, they need to rely far more on long-term equity capital. Before they were faced with the economic crisis in 1997, chaebol groups were both heavily indebted and involved in a wide range of very risky ventures. This severe mismatch between a company’s asset structure and its financial structure has made Korean enterprises vulnerable to high rates of default risk. Therefore, in terms of group finance, business groups will need to adopt a “debt-to-capitalization” strategy.

The headquarters of business groups can also play a more active role in bringing world-class standards and practices of
disclosure and governance to their affiliated companies. The successful achievement of this task is critical to restructuring conglomerates because the rational readjustment of the corporate governance structure as a long-term commitment must precede other reforms in areas such as recapitalization and business readjustment. At the early stages, a firm will find it hard to accept investor demands for transparency, accounta-bility, and a focus on value. However, the rewards are great. Business groups that are willing to respond to these needs have access to virtually unlimited capital as Khanna and Palepu (1999) predict. It is now common knowledge that it is firms themselves that benefit most from this governance reform.
3. New Corporate Map of the Korean Economy

To figure out how the corporate map will look like from 2000, it would be very illustrative to take the viewpoint of the proverbial Marsian looking down at the Korean peninsula. For mapping purposes, he suggests painting the chaebol green and market connections red. Then, “No matter where our visitor approached, the greater part of the space below would be within the green areas, for all of the inhabitants would be employees, hence inside the chaebol boundary. The chaebol would be dominant features of the landscape. A message sent back home …would speak of ‘large green areas interconnected by red lines.’ It would not likely be ‘a network of red lines connecting green spots.’” 5)

This map has changed significantly over the last two years of economic turnaround in every aspect of the economy. Some of the green areas have contracted and others simply disappeared from the map. In contrast, existing red lines have expanded and new ones emerged. The new red lines have been created to fill the void created by the decline of the green areas.

It will still be hard to foresee what the final configuration of the network of green areas interconnected by red lines will turn out to be in the future when short-term restructuring is completed.

It is valuable to note that the chaebol, foreign companies

5) This analogy is taken from Simon (1991) and modified to explain the existence and dominance of chaebol organizations in Korea.
operating in Korea, and SMEs (small and medium enterprises), including venture companies, are not substitutes but complement each other. It would be quite misleading to think that if the *chaebol* were dismantled by force, SMEs would have more growth opportunities. If breaking up the *chaebol* is not approached strategically or in careful steps, it could destroy value in the *chaebol* and also in the Korean economy as a whole.

It would not create value to just destroy or dismantle the *chaebol*. However, this does not mean that they do not need to drastically restructure. Indeed they do so. As market pressure intensifies and institutional arrangements are set up properly, they will have no choice but to reorganize. In some instances, they will need to strategically “break up” the organization or “spin-off” some parts (See Chapter 8.1). Rapid divestment of non-core assets and functions will enable large enterprises to restructure and re-invest in growth areas. In other instances, spinning-off peripheral units can be a good way to develop emerging small-scale independent enterprises.

Large companies tend to spin-off non-core units or divisions. Those new start-ups can become completely independent companies. In many cases, however, the process of spinning-off small enterprises has involved the retention of a minority or majority stake by the parent company. The high transaction costs associated with under-developed markets in Korea are an obvious inducement to retain both formal and informal linkages between the divesting and the
divested firms. As for the newly spun-off companies, they can leave the large groups and take advantage of their knowledge and social contacts to establish themselves in a profitable line of business.

<Figure 21> The Number of Spin-offs from the 30 Biggest Chaebol

<table>
<thead>
<tr>
<th>Year</th>
<th>big 5</th>
<th>big 6-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>97</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>98</td>
<td>26</td>
<td>340</td>
</tr>
<tr>
<td>99.1-6</td>
<td>7</td>
<td>111</td>
</tr>
</tbody>
</table>

As large firms are increasingly spinning off existing functions and outsourcing work, SMEs will have more opportunities to widen their market share, thus realizing economies of scale. In particular, spun-off companies will gradually move from being subsidiaries to becoming independent subcontractors. Then, existing SMEs should have a better chance than before in competing for subcontracting work from large businesses since they will be competing on a level-playing field with former subsidiaries.

In the new economy, every growing business will be
transformed into a knowledge-based one. Traditionally, the chaebol have been said to have a competitive advantage in “cash cow” businesses such as electronics, semiconductors, steel, shipbuilding, and chemical industries that require huge lump-sum investments. But IT and other technological changes will turn those manufacturing businesses into knowledge-based industries. Knowledge will increasingly be embedded in the products, production process or skills of those traditional manufacturing industries. If firms do not catch up to this trend, they will definitely lose out. Large conglomerates also have a serious interest in that transition to knowledge-based industries. To catch up to leading firms in that industry, which will grow faster than any other industry, Korean firms will need to completely readjust their lines of business into a new business portfolio. Many existing businesses must be strategically abandoned in order to focus on new businesses. It goes without saying that through this process, many business lines or products shed by the large companies will be taken over by SMEs.

In the so-called “star” businesses such as information, telecommunications, biotechnology, and other technology-based service industries, SMEs and venture businesses can be as competitive as the large business groups can be. More flexible and more willing to take risks, they stand a higher chance for success in this arena. In particular, the capital market, long inhospitable and discriminatory vis-à-vis SMEs, is now giving them special attention. Any firm with a good governance structure will not have much difficulty in
attracting domestic and foreign investment. All these changes imply greater opportunities for promising SMEs and ventures in the new economy.

Another core player in the Korean economy will be foreign-owned companies operating in the domestic market. So far they have purchased a number of chaebol businesses and have made capital alliances with them. Many foreign companies -

**<Figure 22> Business Type of Spun-off Companies**

**<Figure 23> The Number of Registered Venture Businesses**

3. Chaebol Restructuring Revisited: A Coasian Perspective 219
panies are making strategic alliances with Korea’s big businesses in fields such as marketing and even R&D. Since the outset of the economic crisis, foreign investment into Korea, direct and indirect, has notably and consistently increased. This means that foreign companies are major players in both the capital and products markets, and that their voice and influence can not be disregarded any more.

<Figure 24> Foreign Investment in Korea

On the one hand, foreign companies are making strategic alliances with the chaebol, but on the other hand, they are also competing fiercely with domestic companies. In many cases, foreign companies are international market leaders. Without properly designed strategic alliances with them, domestic firms could be in big trouble when they try to penetrate world markets. Foreign firms are now the third
factor along with the *chaebol* and SMEs, no more negligible in determining the future Korean corporate map.

In the coming years, the Korean corporate map will be re-drawn and will look like a tripod: it will be supported by a group of loosely coupled *chaebol*, a group of foreign-owned companies, and an increasing number of SMEs including venture companies.
References


3. Chaebol Restructuring Revisited: A Coasian Perspective 223
July-August 1999.


4. Excess Capacity and Big Deals

In Kwon Lee
I. Introduction

Chronic excess capacity or over-investment has been a key issue whenever Korea experiences economic difficulties. The Korean government has repeatedly interfered with market mechanisms to dissolve structural excess capacity since it started full scale restructuring in the early 1980s. The purpose of this policy was to cure the adverse effects of excessively redundant investment in heavy and chemical industries after the second oil shock in 1979. Then, with the enactment of the Industry Development Law in the mid 1980s, the government initiated the restructuring of facilities in declining industries such as textiles, dyeing/processing, and fertilizers in which chronic excess capacity had existed for a long time. The Korean government continued to indirectly engage in resource allocation through its “Core Business Specialization” program in the 1990s because it believed that excessive business diversification and over-investment on the part of the chaebol might weaken the country’s international competitive edge in major industries. The government came up with the “Big Deal” policy, in which the 5 largest chaebol were asked to swap 8 businesses in key industries to alleviate chronic excess capacity in these businesses, which was pointed out as being one of the key factors bringing about the financial crisis of 1997. The eight major industries targeted by the big deals were the semiconductor, petrochemical, automobile, aerospace, railway vehicle, power-generator/ship-engine, oil refining,
and electronic industries. Looking back on past industrial policies vis-à-vis excess capacity since the 1980s, the latter has been continuously mentioned at the center of the former, and without exception, the government has taken an active part in resource reallocation to solve that problem. Based on the statistical analysis of a panel data composed of 26 firms’ financial information over the sample period of 1988-1998, this paper rigorously examines whether chronic excess capacity has existed or not and which factors determine the scale of excess capacity. This research shows that the size of excess capacity is influenced by demand shocks, market structure, capital intensity, and a variety of strategic interactions among oligopolistic firms. Statistical results illustrate that government-led resource allocation, such as the “Big Deals,” has limits in its function and effectiveness. This paper is organized as follows. Section II describes the extent and the general determinants of excess capacity in the eight industries concerned. Section III explains the data, empirical model, and test results of model specification. Section IV contains empirical estimation results and statistical inferences. The paper ends with a summary and concluding remarks in section V.

II. Determinants of Excess Capacity

1. Does Chronic Excess Capacity Exist?

4. Excess Capacity and Big Deals 227
Excess capacity that can be a considerable burden on the national economy as well as on the firms concerned is called chronic excess capacity. Chronic excess capacity refers to a state of constant over-capacity during normal economic phases as well as during peak demand. It is not natural capacity or temporary excess capacity due to some particularities of the market structure or economic fluctuations.\(^1\) Redundant and excessive facility investment resulting from imprecise forecasting of future demand and supply can be said to have occurred *ex post*. In such a case the concept of *ex ante* excess capacity is not validated.

Facility investment efficiency equivalent to the value-added/tangible fixed asset ratio, or current profit rate, is often utilized as a proxy variable for excess capacity. However, these terms, as a proxy variable for excess capacity, are vulnerable in the sense that they are significantly affected by market structure and cost-related disturbances. In this study a variable of unutilized capacity, that is, a measure of idle facility for each firm, is designed as a proxy variable. A detailed explanation of unutilized capacity used in this study is temporarily postponed.

The yearly average growth rate of sales in “Big Deal” industries over the sample period of 1988-1998 is 23.48%, which is almost double the yearly average growth rate of sales (11.79%) for all industries in the manufacturing sector. The annual average growth rate of sales in “Big Deal”

\(^1\) Bain (1962) defines chronic excess capacity as a “persistent tendency toward redundant capacity at times of maximum or peak demand.”
industries is as follows: 45.58% for semiconductors, 23.01% for petrochemicals, 13.93% for autos, 42.41% for aerospace, 26.01% for railway vehicles, 16.40% for power-generators/ship-engines, 14.94% for oil refining, and 20.47% for electronics.

<Table 1> Growth Rate of Sales

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Semiconductor</td>
<td>-24.39</td>
<td>17.66</td>
<td>93.14</td>
<td>69.52</td>
<td>54.95</td>
<td>69.11</td>
<td>79.86</td>
<td>-12.91</td>
<td>18.08</td>
<td>18.52</td>
<td>45.58</td>
<td></td>
</tr>
<tr>
<td>Auto</td>
<td>20.94</td>
<td>12.84</td>
<td>29.51</td>
<td>8.71</td>
<td>10.99</td>
<td>23.07</td>
<td>22.99</td>
<td>19.80</td>
<td>18.16</td>
<td>9.64</td>
<td>-23.44</td>
<td>13.93</td>
</tr>
<tr>
<td>Aerospace</td>
<td>27.00</td>
<td>-3.82</td>
<td>17.10</td>
<td>118.54</td>
<td>-25.17</td>
<td>30.22</td>
<td>91.41</td>
<td>86.10</td>
<td>33.68</td>
<td>31.45</td>
<td>56.20</td>
<td>42.41</td>
</tr>
<tr>
<td>Railway vehicle</td>
<td>39.78</td>
<td>19.00</td>
<td>70.39</td>
<td>3.11</td>
<td>120.50</td>
<td>8.01</td>
<td>43.57</td>
<td>-12.52</td>
<td>24.82</td>
<td>-3.62</td>
<td>-23.90</td>
<td>26.01</td>
</tr>
<tr>
<td>Power-generator / Ship-engine</td>
<td>3.66</td>
<td>8.44</td>
<td>40.87</td>
<td>42.35</td>
<td>16.92</td>
<td>5.70</td>
<td>15.50</td>
<td>28.61</td>
<td>15.58</td>
<td>18.48</td>
<td>-15.75</td>
<td>16.40</td>
</tr>
<tr>
<td>Oil refining</td>
<td>23.23</td>
<td>42.05</td>
<td>29.31</td>
<td>28.58</td>
<td>20.29</td>
<td>4.78</td>
<td>7.64</td>
<td>14.18</td>
<td>21.44</td>
<td>-1.72</td>
<td>-25.46</td>
<td>14.94</td>
</tr>
<tr>
<td>All Manufacturing</td>
<td>17.55</td>
<td>8.38</td>
<td>17.08</td>
<td>11.12</td>
<td>8.98</td>
<td>11.46</td>
<td>14.71</td>
<td>15.48</td>
<td>8.47</td>
<td>4.75</td>
<td>-</td>
<td>11.79</td>
</tr>
</tbody>
</table>

The average capacity operating rate by industry over the sample period was as follows: 92.27% for semiconductors, 93.83% for petrochemicals, 72% for autos, 79.05% for aerospace, 69.67% for railway vehicles, 77.89% for power-generator/ship-engines, 92.14% for oil refining, and 80.56% for electronics. Over the same period the annual average capacity utilization rate for the manufacturing sector was 79.36%. The rate fluctuated annually within a band of ±1-

4. Excess Capacity and Big Deals 229
2% around 80%.

<Table 2> Capacity Operating Rate
(\text{unit : \%})

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Semiconductor</td>
<td>90.59</td>
<td>87.64</td>
<td>77.69</td>
<td>88.00</td>
<td>96.49</td>
<td>94.00</td>
<td>102.40</td>
<td>98.33</td>
<td>96.78</td>
<td>91.75</td>
<td>89.55</td>
<td>92.27</td>
</tr>
<tr>
<td>Petrochemical</td>
<td>82.00</td>
<td>86.33</td>
<td>92.98</td>
<td>104.03</td>
<td>93.04</td>
<td>98.66</td>
<td>106.21</td>
<td>96.67</td>
<td>94.50</td>
<td>89.84</td>
<td>88.81</td>
<td>93.83</td>
</tr>
<tr>
<td>Auto</td>
<td>64.49</td>
<td>65.26</td>
<td>64.94</td>
<td>62.79</td>
<td>62.01</td>
<td>80.00</td>
<td>88.00</td>
<td>81.87</td>
<td>89.83</td>
<td>76.12</td>
<td>56.65</td>
<td>72.00</td>
</tr>
<tr>
<td>Aerospace</td>
<td>58.98</td>
<td>65.52</td>
<td>78.12</td>
<td>77.86</td>
<td>54.19</td>
<td>67.24</td>
<td>140.46</td>
<td>54.65</td>
<td>45.29</td>
<td>68.52</td>
<td>87.07</td>
<td>79.05</td>
</tr>
<tr>
<td>Railway vehicle</td>
<td>74.96</td>
<td>72.56</td>
<td>77.26</td>
<td>67.29</td>
<td>66.26</td>
<td>55.91</td>
<td>74.33</td>
<td>71.59</td>
<td>65.83</td>
<td>65.45</td>
<td>84.22</td>
<td>69.67</td>
</tr>
<tr>
<td>Power-generator/Ship-engine</td>
<td>86.35</td>
<td>56.43</td>
<td>73.73</td>
<td>70.23</td>
<td>66.96</td>
<td>79.09</td>
<td>82.33</td>
<td>81.62</td>
<td>83.56</td>
<td>85.00</td>
<td>91.50</td>
<td>77.89</td>
</tr>
<tr>
<td>Oil refining</td>
<td>91.52</td>
<td>91.35</td>
<td>91.93</td>
<td>96.30</td>
<td>82.98</td>
<td>89.48</td>
<td>92.52</td>
<td>97.73</td>
<td>98.03</td>
<td>85.29</td>
<td>85.38</td>
<td>92.14</td>
</tr>
<tr>
<td>Electronics</td>
<td>75.90</td>
<td>70.95</td>
<td>78.74</td>
<td>77.01</td>
<td>83.97</td>
<td>76.17</td>
<td>85.96</td>
<td>82.24</td>
<td>83.39</td>
<td>86.12</td>
<td>85.67</td>
<td>80.56</td>
</tr>
<tr>
<td>All Manufacturing</td>
<td>79.20</td>
<td>76.30</td>
<td>78.30</td>
<td>79.50</td>
<td>78.40</td>
<td>77.90</td>
<td>81.30</td>
<td>81.00</td>
<td>81.80</td>
<td>79.90</td>
<td>-</td>
<td>79.36</td>
</tr>
</tbody>
</table>

It is inferred that a capacity operating rate of 80% is usually regarded as the normal level in manufacturing industries, even though the normal capacity operating rate is slightly different by industry. I also use 75% as a benchmark for the capacity operating rate during recessions. The average capacity utilization rate in 1989, a year of economic downswing in the sample period, was 76.35%, still higher than the benchmark of 75%. Average capacity utilization rates in 1994-1996, years of economic upswings, rose to 81-82%. The number of years in which capacity operating rates fell short of 75% and 80% respectively, and ratios of the number of the years falling under each category to the number of total sample years are summarized in Table 3.
The ratios by industry defined under the benchmark rate of 80% are considerably high for the auto (63.64%), aerospace (81.82%), railway vehicle (90.91%), power-generator/ship-engine (45.45%), and electronic (45.45%) industries. Even the ratios based on the benchmark rate of 75%, defined as the capacity operating rate in economic downturns, turn out to be high for the auto (54.54%), aerospace (63.64%), railway vehicle (81.82%), and power-generator/ship-engine (36.36%) industries. These ratios indicate that there has been an accumulation of structurally excessive capacity from continual over-investment in these industries far in excess of growing aggregate demand over the sample period.
2. Discussion on the Determinants of Excess Capacity

Almost all theoretical and empirical studies on the interaction of market structure, market behavior, and market performance tackle the issue of allocative efficiency. These studies commonly use the mark-up rate as an indicator of market performance. On the other hand, there are few papers that look into the interaction of strategic market behavior and market structure with excess capacity, another important dimension of market performance. Chamberline (1957) was the first economist to raise the economic theory that excess capacity exists in monopolistic competition markets. He regards as excess capacity the gap between capacity output, defined as the lowest point on the total average cost curve, and actual output. He explains excess capacity as an inevitable cost deriving from the output variety of products in monopolistic competitive markets. Of the major empirical studies dealing with the relationship between market structure and excess capacity (Bain, 1962; Meehan, 1967; Scherer, 1969; F. and L. Esposito, 1974, 1986), only the studies of Bain (1962) and F. and L. Esposito (1974 and 1986) directly relate market structure\(^2\) to the degree of

\(^2\) Bain (1962) observed that chronic excess capacity did not appear in his six sample industries with “substantial” or “very high” entry barriers but did appear in his three industries with “moderate to low” entry barriers. Meehan (1967) investigates how industries adjust their capacity when faced with a permanent increase in demand. Using a sample of five industries, he finds that the same degree of excess capacity develops in the two atomistic industries (soft coal mining and flour milling) as in the two oligopolistic industries (steel and cement manufacturing). In the pre-war aluminum industry, a monopoly,

232 *Korean Chaebol in Transition: Road Ahead and Agenda*
chronic excess capacity. F. and L. Esposito (1974) investigated the quantitative relationship between market structure and a direct measure of excess capacity for 35 American industries in the manufacturing sector. In order to capture chronic excess capacity, the dependent variable is measured over a period of rising aggregate demand, 1963-1966. The results suggest that partial oligopolies experience significantly more excess capacity during periods of growing aggregate demand than do tight oligopolistic or competitive industries. In a statistical analysis of 273 U.S. industries, F. and L. Esposito (1986) find excess capacity levels in periods of peak demand to be 2.8 percentage points higher on average in middling oligopolies than in either atomistically structured or tightly oligopolistic industries, taking into account demand variability, demand growth, capital intensity, and also plant durability.

Economic theory clearly defines the expected excess capacity outcomes when perfectly competitive and monopolistic markets are faced with a permanent increase in market demand. 3) It is less clear in defining excess capacity

there was no evidence of excess capacity. Scherer (1969) approaches the problem by trying to explain the degree of investment instability. He constructs a measure of investment instability for the period of 1954-1963 and regresses this measure against industry concentration and a measure of demand instability. He finds a positive and significant relationship between concentration and investment instability.

3) Perfectly competitive markets experience the entry of new firms and the over-expansion of existing firms because the elasticity of price expectation of each firm is one. As a result, the expanded industry capacity output exceeds quantity demanded at the long-run equilibrium price and aggregate industry capacity is underutilized. In contrast, monopolists adjust their capacity to the expected long-

4. Excess Capacity and Big Deals 233
in oligopolistic industries where strategic interactions among rival firms about choice variables such as price and output entail. For oligopolistic industries with high sales concentration, high barriers to entry, and less degree of product differentiation, the probability of collective action to share maximal industry profit is very high. If the formation of ‘focal points’ among competing firms, equivalent to cartel-like behavior, is followed, one expects a rather smooth adjustment toward the new long-run equilibrium capacity level given a permanent increase in demand. Capital is fully utilized much in the same manner as in the monopolies. On the other hand, excess capacity can arise in a tight oligopolistic industry if at least one of the oligopolists views an increase in industry demand as a good opportunity to increase its sales and market share. In this situation excess capacity is avoided only if the non-ambitious oligopolists allow decreases in their market shares.

Excess capacity is related with market behavior to strategically deter new entries. Excess capacity has been consi-dered to have commitment value since it satisfies Geroski’s pre-conditions : observability, durability, and irreversibility. Spence (1977), in a seminal paper, argues that excess capacity enables incumbents to threaten to expand output and cut prices following entry, thereby making entry unprofitable. This so-called excess capacity hypothesis run equilibrium price and excess capacity does not occur. Since entry is effectively deterred, the capacity output defined by the monopolists is not disturbed.
argues that entry deterrence is achieved by intensifying the level of post-entry competition anticipated by the entrants, and parts of the capacity installed pre-entry will be left idle after entry has been deterred. Similar theoretical arguments can also be found from Eaton and Lipsey (1979), Spulber (1981), Perrakis and Warskett (1983), and Reynolds (1986).\textsuperscript{4)\textsuperscript{}} However, empirical studies do not consistently support the validity of this hypothesis.\textsuperscript{5)\textsuperscript{}}

Even though market structure and strategic investment for entry deterrence can have an effect on the existence of excess capacity, there are other determinants of excess capacity. An oligopolist may also create excess capacity in order to retain his own buyers and service his rivals’ customers in case unanticipated future increases in demand occur. In turn, the fear of a future loss of market share may impel rival oligopolists to increase capacity beyond what is needed to meet their current demand. Uncertainty in future industry demand is likely to be reflected in a disproportionate increase in capacity for all firms. Firms optimistic about future market demand will aggressively expand their production facility. In contrast, firms

\textsuperscript{4)\textsuperscript{}} Dixit (1980) questions this hypothesis on the grounds that the equilibrium examined by Spence is not ‘perfect.’ He shows that when the requirement of subgame perfection is imposed, capacity can still be strategically used to deter entry, but idle capacity is not observed in equilibrium. In a variant Dixit model, however, Bulow, Geanakopolos, and Klemperer (1985) show that excess capacity can be found in perfect equilibrium if competing products are strategic complements.

\textsuperscript{5)\textsuperscript{}} Refer to empirical studies carried out by Hilke (1984), Ghemawat (1984), Kirman and Masson (1986), Masson and Shaanon (1986), and Liberman (1987).
pessimistic of future market demand will adjust their production facilities to conservative levels. Besides these factors, capital intensity, demand shock, and firm size competition may affect the degree of excess capacity. In summary, uncertainty in market demand and strategic interactions between rival firms in oligopolistic industries may inevitably bring about excess capacity.

III. Data and Empirical Model

1. Data

Industry data was collected from the National Statistical Office’s Mining and Manufacturing Survey (1987-1998), and various financial data at the firm level was taken from the Annual Report of Korean Companies provided by the Korea Investors Service and from firms’ auditing documents. The number of sample industries and firms are eight and twenty-six respectively. The sample industries and firms are listed in Table 4.

<Table 4> List of Sample Industries and Firms

<table>
<thead>
<tr>
<th>Industry</th>
<th>Korea Standard Industry Classification 87-90</th>
<th>Standard Industry Classification 91-97</th>
<th>Name of Firm</th>
<th>Listed or Unlisted</th>
<th>Year of Establishment</th>
<th>Old Name of Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semiconductor</td>
<td>3834</td>
<td>321</td>
<td>HYUNDAI ELECTRONICS IND. CO., LTD.</td>
<td>listed(96)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LG SEMICON CO., LTD</td>
<td>listed(96)</td>
<td></td>
<td>GOLDSTAR ELECTRON CO., LTD.</td>
</tr>
</tbody>
</table>

236 Korean Chaebol in Transition : Road Ahead and Agenda
<table>
<thead>
<tr>
<th>Chemical</th>
<th>Company Name</th>
<th>Status</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrochemical</td>
<td>SAMSUNG ELECTRONICS CO., LTD.</td>
<td>listed</td>
<td></td>
</tr>
<tr>
<td>3511</td>
<td>SAMSUNG GENERAL CHEMICAL CO., LTD.</td>
<td>unlisted</td>
<td></td>
</tr>
<tr>
<td>3512</td>
<td>HYUNDAI PETROCHEMICAL CO., LTD.</td>
<td>unlisted</td>
<td>1988</td>
</tr>
<tr>
<td>3513</td>
<td>SK CORPORATION</td>
<td>listed</td>
<td></td>
</tr>
<tr>
<td>3515</td>
<td>LG CHEMICAL LTD.</td>
<td>listed</td>
<td></td>
</tr>
</tbody>
</table>

4. Excess Capacity and Big Deals 237
### Korean Standard Industry Classification

<table>
<thead>
<tr>
<th>Industry</th>
<th>Name of Firm</th>
<th>Listed or Unlisted</th>
<th>Year of Establishment</th>
<th>Old Name of Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto 38431</td>
<td>HYUNDAI MOTOR CO.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DAEWOO MOTOR CO., LTD.</td>
<td>unlisted</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>KIA MOTORS CORPORATION</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAMSUNG MOTORS</td>
<td>unlisted</td>
<td>1995</td>
<td></td>
</tr>
<tr>
<td>Aerospace 3845</td>
<td>SAMSUNG AEROSPACE INDUSTRIES LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HYUNDAI SPACE &amp; AIRCRAFT CO., LTD.</td>
<td>unlisted</td>
<td>1994</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DAEWOO HEAVY INDUSTRIES LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Railway vehicle 3842</td>
<td>DAEWOO HEAVY INDUSTRIES LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HYUNDAI PRECISION AND INDUSTRY CO., LTD.</td>
<td>listed(89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HANJIN HEAVY INDUSTRIES CO., LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power-generator / Ship-engine 3821</td>
<td>SAMSUNG SHIPBUILDING AND HEAVY INDUSTRIES CO., LTD.</td>
<td>listed(94)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3829</td>
<td>HYUNDAI HEAVY INDUSTRIES CO., LTD.</td>
<td>unlisted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3831</td>
<td>KOREA HEAVY INDUSTRIES AND CONSTRUCTION CO., LTD.</td>
<td>unlisted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3841</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil refining 353</td>
<td>HYUNDAI OIL CO., LTD.</td>
<td>unlisted</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HANWHA ENERGY CO., LTD.</td>
<td>listed</td>
<td>KYUNGIN ENERGY CO., LTD.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LG CALTEX OIL REFINERY CO., LTD.</td>
<td>unlisted</td>
<td>HONAM OIL REFINERY CO., LTD.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SSANGYONG OIL REFINING CO., LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SK CORPORATION</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic 3832</td>
<td>SAMSUNG ELECTRONICS CO., LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3833</td>
<td>DAEWOO ELECTRONICS CO., LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DAEWOO TELECOM CO., LTD.</td>
<td>listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LG ELECTRONICS INC.</td>
<td>listed</td>
<td>GOLDSTAR CO., LTD.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HYUNDAI ELECTRONICS IND. CO., LTD.</td>
<td>listed(96)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Empirical Model

For the empirical analysis I assume a casual relationship between excess capacity and its determinants as follows:

\[
EXCA_{ijt} = \gamma_i + \alpha_1 GROWTHSA_{ijt} + \alpha_2 INVEST_{ijt} + \alpha_3 KASA_{ijt} \\
+ \alpha_4 GROWTHSA \times KASA_{ijt} + \alpha_5 ENTRY_{ijt} + \alpha_6 TIGHT_{ijt} + \epsilon_{ijt}
\]

\(\gamma_i\), the constant term in this estimation equation, reflects the time-invariant industry specific effect, a feature of the panel data. Also, the least square dummy variable approach can be extended to include an industry-invariant time-specific effect as well. Statistical inferences of estimated coefficients of an extended model with a time dummy variable are not significantly different from statistical inferences of the estimated coefficients of the preceding model without a time dummy variable.

The variables used in this analysis are as follows.

- \(EXCA\), a dependent variable representing the estimated percentage of a firm’s unutilized capacity. Excess capacity is the unutilized capacity of a firm’s designed maximum capacity. The economic definition of designed maximum capacity refers to a firm’s short-run minimum average cost output.
under the assumption that labor and raw materials are available as needed. Following the empirical model of F. and L. Esposito (1974), I assume that the designed maximum capacity at which firms prefer to operate approximates the short-run minimum average cost definition of economic capacity. The excess capacity variable indicates what percentage of capacity is underutilized according to the economic norm of excess capacity. Numerical values of excess capacity are calculated using the following equation.

$$EXCA = \frac{\text{designed maximum capacity measured in money} - \text{actual output measured in money}}{\text{designed maximum capacity measured in money}} \times 100.$$ 

- **GROWTHSA**, growth rate of sales, which is the percentage change in demand fluctuation for each firm. This variable, deflated by the producer price index, measures the degree of demand shocks.\(^6\) All else equal, we would expect excess capacity to be negatively correlated with this variable.

- **INVEST**, a ratio of the growth rate of tangible fixed asset in the current period to the growth rate of sales in the preceding period. This variable is used to control for the degree of under-investment and over-investment in the current period against the growth rate of sales in the preceding period. It is assumed that firms forecast the size of sales in the current year based on the size of sales in the previous year. Then, it can be presumed that firms will determine the size of investment in the current year by taking

---

\(^6\) The data for the producer price index was collected from the Annual Economic Statistics issued by the Bank of Korea.
into account the forecasted size of sales. This variable is designed to control for the effect of errors in demand forecasting on excess capacity. Other things being equal, unutilized capacity is likely to rise if capital investment in the current period is high compared with the growth rate of sales in the preceding period. We would expect the estimated coefficient of \textit{INVEST} to be positive.

- \textit{KASA}, a tangible fixed asset/sales ratio used to measure a firm’s capital intensity. Since investment is likely to be lumpier in capital intensive industries, capital stock may increase by an amount greater than that required by a permanent increase in demand. It may also not be easy to reduce capital stocks quickly or by the appropriate amount when demand decreases. Thus, we would expect a positive relationship between excess capacity and the tangible fixed asset/sales ratio. On the contrary, since the ratio of fixed to variable costs is relatively high in capital intensive industries, firms in these industries may reduce prices more quickly during periods of declining demand in order to avoid significant amounts of unutilized capacity. I.O. folklore tells us that the temptation to renege on price agreements may be particularly strong during business downturns for firms bearing a heavy fixed cost burden. Then, we would expect a negative relationship between excess capacity and the tangible fixed asset/sales ratio. So we need to identify the value of the estimated coefficient for this variable in order to find out whether a negative relationship between two variables dominates a positive relationship.
• **GROWTHSA\*KASA**, an interactive variable between the growth rate of sales and the tangible fixed asset/sales ratio. This interactive term captures the differences in demand influenced by the level of capital intensity.

• **ENTRY**, a dummy variable capturing the effects of strategic investment for entry deterrence on the level of excess capacity. This variable’s value is one for the year just prior to the one in which a new firm actually enters the market, and zero for all other years.\(^7\) This study only deals with the cases where incumbents accommodate new entries in the end. Even though there may theoretically be cases where incumbents successfully deter a potential new entry, I did not observe such cases in the sample.

• **TIGHT**, a dummy variable to control for the effects of market structure on excess capacity. This variable’s value is one if a firm operates in a tight oligopolistic industry where the three-firm concentration ratio is 70 or above, and zero if it operates in a partial oligopolistic industry where the three-firm concentration ratio is less than 70.\(^8\)

---

7) There were three industries where a new firm entered the market over the sample period: the petrochemical industry (HYUNDAI PETROCHEMICAL CO. in 1988), the auto industry (SAMSUNG MOTORS CO. in 1995), and the aerospace industry (HYUNDAI SPACE & AIRCRAFT CO. in 1994). 1994, and not 1995 when SAMSUNG MOTORS CO was legally established, is chosen as a base year because the Korean government officially blocked Samsung’s entry in April of 1994 and finally changed its position in Nov. of that year to allow the company entry in the auto industry.

8) This classification of market structure follows F. and L. Esposito (1974). According to this classification, five sample industries are tight oligopolistic industries; the semiconductor, auto, aerospace, railway vehicle, and power-generator/ship-engine industries.
3. Model Specification Test

First, I test the hypothesis that industry-specific effects do not exist. Under the null hypothesis that the constant terms are equal, pooled least squares is the most efficient method of estimation. The F-statistic \((7, 242)\) for the pooled OLS model vs. the fixed effect model is 3.43, rejecting the OLS model on pooled data at the 1% significance level. 9) Thus, industry specific effects need to be considered in the empirical estimation. The null hypothesis that the industry specific effects are uncorrelated with the other regression variables is also tested to identify the validity of the random effects model. If the industry-specific effects are correlated with the other explanatory variables, then the estimated coefficients based on the random effects model are not consistent. \(\chi^2 (6)\) in the fixed effects model vs. the random effects model is 32.54, rejecting the null hypothesis that the industry-specific effects are not correlated with the other explanatory variables. I also statistically check the heteroscedasticity that disturbances have a different variance across firms. \(\chi^2 (24)\) is 22.25, not rejecting, even at the 50% significance level, the null hypothesis that disturbances have the same variance across firms. In addition, multicollinearity

---

9) The \(F\) ratio used for the test is

\[
F(n-1, \ nT-n-K) = \frac{(R_u^2 - R_p^2)/(n-1)}{(1-R_u^2)/(nT-n-K)}
\]

\(R_u^2\) : sum of squared residuals for the fixed effect model; \(R_p^2\) : sum of squared residuals for the pooled OLS model; \((nT-n-K)\) : degree of freedom for the fixed effect model; and \((n-1)\) : degree of freedom for the pooled OLS model.
between measured variables is also statistically verified. We can conclude that multicollinearity, affecting the precise analysis of explanatory variables, can be ignored based on the eigenvalue, the numerical values of $\eta_i$, and the variance proportion. $\eta_i = (\text{maximal eigenvalue}/\text{ith eigenvalue})^{1/2}$. The general principle states that if $\eta_i$ is greater than 30 and the value of the variance proportion is high, a multicollinearity problem exists. The statistics in Table 5 show that the values of $\eta_i$ and the variance proportion are very low.

<Table 5> $\eta_i$ and the Variance Proportion

<table>
<thead>
<tr>
<th>No.</th>
<th>Eigenvalue</th>
<th>$\eta_i$</th>
<th>GROWTHSA</th>
<th>INVEST</th>
<th>KASA</th>
<th>GROWTHSA*KASA</th>
<th>ENTRY</th>
<th>TIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.36590</td>
<td>1.20757</td>
<td>0.1550</td>
<td>0.2368</td>
<td>0.0259</td>
<td>0.2504</td>
<td>0.0031</td>
<td>0.0015</td>
</tr>
<tr>
<td>2</td>
<td>0.17278</td>
<td>3.39530</td>
<td>0.0036</td>
<td>0.0000</td>
<td>0.0027</td>
<td>0.0062</td>
<td>0.0083</td>
<td>0.9057</td>
</tr>
<tr>
<td>3</td>
<td>0.99703</td>
<td>1.41340</td>
<td>0.0061</td>
<td>0.0194</td>
<td>0.5929</td>
<td>0.0006</td>
<td>0.3293</td>
<td>0.0000</td>
</tr>
<tr>
<td>4</td>
<td>0.92809</td>
<td>1.46496</td>
<td>0.4146</td>
<td>0.2002</td>
<td>0.0952</td>
<td>0.0631</td>
<td>0.1611</td>
<td>0.0146</td>
</tr>
<tr>
<td>5</td>
<td>0.83052</td>
<td>1.54863</td>
<td>0.3330</td>
<td>0.0728</td>
<td>0.1061</td>
<td>0.2555</td>
<td>0.3361</td>
<td>0.0017</td>
</tr>
<tr>
<td>6</td>
<td>0.71390</td>
<td>1.67033</td>
<td>0.0805</td>
<td>0.4701</td>
<td>0.1558</td>
<td>0.4230</td>
<td>0.1200</td>
<td>0.0098</td>
</tr>
</tbody>
</table>
IV. Empirical Results and Implications

<Table 6> Fixed Effects Model with Interactive Terms

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Estimated Coefficient</th>
<th>Standard Error</th>
<th>T-value</th>
<th>Prob &gt;</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROWTHSA</td>
<td>-0.10817</td>
<td>0.03142</td>
<td>-3.443</td>
<td>0.0007</td>
<td></td>
</tr>
<tr>
<td>INVEST</td>
<td>0.00486</td>
<td>0.00069</td>
<td>7.731</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>KASA</td>
<td>-0.03101</td>
<td>0.01944</td>
<td>-1.595</td>
<td>0.1119</td>
<td></td>
</tr>
<tr>
<td>GROWTHSA*KASA</td>
<td>-0.00147</td>
<td>0.00050</td>
<td>-2.916</td>
<td>0.0039</td>
<td></td>
</tr>
<tr>
<td>ENTRY</td>
<td>12.95303</td>
<td>5.72682</td>
<td>2.262</td>
<td>0.0246</td>
<td></td>
</tr>
<tr>
<td>TIGHT</td>
<td>2.04743</td>
<td>2.36765</td>
<td>0.865</td>
<td>0.3880</td>
<td></td>
</tr>
</tbody>
</table>

Observations: 255
\( \overline{R^2} \): 0.3131
F Value: 20.372
Prob>F: 0.0001

The estimated GROWTHSA coefficient, as expected, is negative and statistically significant at the 1% level. It is clear that the scale of excess capacity moves in the opposite direction with changes in demand. Evaluated at the mean value of KASA (67.08%), \( \frac{\partial EXCA}{\partial GROWTHSA} = -0.2066 \). The level of excess capacity in sample firms is found to be sensitive to firm-specific demand shocks.

The estimated INVEST coefficient is positive and statistically significant. Firms are assumed to forecast the size of sales in the current year based on the size of sales in the last year. Then, it can be presumed that firms will determine the size of investment in the current year by taking into account the forecasted size of sales. Excess capacity

4. Excess Capacity and Big Deals 245
increases if facility investment in the current year rises much compared with the increase in sales in the preceding year. In this case excess capacity is interpreted as \textit{ex post} excess capacity due to demand forecasting errors.

The annual average growth rate of sales in “Big Deal” industries over the sample period of 1988-1998 was 23.48%. Despite such a remarkable increase in demand, the existence of chronic excess capacity in five industries suggests that firms’ expectations of future demand was very optimistic, and thus they actively engaged in the excessive enlargement of production capacity. During the first half (1988-1993) of the sample period, the tangible fixed asset/sales ratio was 63%, and during the second half (1994-1998) the ratio rose to 77%. Excessive facility investment resulting from optimistic demand forecasting during the second half of the sample period, including the business bubble of 1994-1996, was observed. It is also noteworthy that over-investment can originate from other institutional factors. In countries with advanced market institutions, the profitability and the competitiveness of firms are key barometers to determine the success or failure of firms. However, in countries with poor market infrastructure, firms’ external size plays an important role in bargaining with financial institutions and the government. Under this incentive structure, firms often pursue a size maximization strategy, which may result in excessive investment.

The estimated \textit{KASA} coefficient is negative and statistically significant. Since firms and industries
characterized by relatively high capital intensity usually bear a heavy fixed cost burden, the fixed costs per unit matters in business slumps. Even if the demand conditions are not actually bad in “Big Deal” industries, firms in these industries facing chronic excess capacity over a long period of time may have an incentive to spread high fixed costs over more units of output. In this process, an increase in firms’ output causes oversupply in the market, triggers a price-cutting war among competing firms, and results in declining profits. Indeed, five industries with structural excess capacity recorded low rates of return.\textsuperscript{10) Evaluated at the mean value of $GROWTHSA$ (67.08%), $\frac{\partial EXCA}{\partial KASA} = -0.0655$. Empirical results with respect to the tangible fixed asset/sales ratio in this study are in essence the same as F. and L. Esposito’s study in which the tangible fixed asset/value-added ratio was used as a control variable for capital intensity. As mentioned in section III, investment is likely to be lumpier in capital intensive industries. Thus, it may not be easy to reduce capital stocks quickly, or by the appropriate amount, when demand decreases. However, statistical results show that the indivisibility effect of investment turns out to be dominated by the fixed cost effect.

The estimated $GROWTHSA*KASA$ coefficient, which captures the differences in demand influenced by the level of capital intensity, is negative and statistically significant. Note

\textsuperscript{10) For example, the average current profit rate during the sample period was -2.16% for the auto industry, -0.26% for the aerospace industry, and -0.06 for the railway vehicle industry.}

4. Excess Capacity and Big Deals 247
that $\partial^2 \text{EXCA} / \partial \text{GROWTHSA} \partial \text{KASA} = -0.00147$. In other words, an increase in capital intensity leads to lower excess capacity based on demand effects since firms have an incentive to raise their capacity utilization rates to spread high fixed costs over more units of output.

The positive and statistically significant \textit{ENTRY} coefficient indicates that incumbent firms maintain excess capacity to strategically deter new entries. After controlling for other effects, we find that unutilized capacity rises by 12.95% on average when there is a potential entry. This statistical result verifies the theoretical inference that an excess capacity strategy may enable incumbents to threaten to expand output and cut prices following entry, thereby making entry unprofitable. It is also worth noting that this statistical result may be partially attributable to incumbents’ exploitation of entry regulation policies. In cases where new entry is prohibited by law, incumbent firms have no incentive to retain excess capacity to deter potential competitors. However, most entry regulations are administered in such a way that the government prohibits some entries and permits others at its own discretion. Under this incentive structure, potential new entrants might lobby for a permit to enter a market and incumbents might maintain excess capacity to signal to the government that new entries would lead to redundant investments and deepen the excess capacity problem. In this study it is inferred that an excess capacity strategy is exercised as a mixed strategy. One strategy is to utilize excess capacity as a commitment...
value to deter potential entry. The other is to exploit excess capacity as a justification for entry regulations. We need to be cautious in interpreting statistical results because this study only deals with the cases in which incumbents accommodate new entries in the end. However, statistical inferences based on the empirical results are still possible since there was no evidence of concrete potential entries in the sample industries except for the auto, petrochemical, and semiconductor industries.

The estimated *TIGHT* coefficient is positive and not statistically significant. This empirical result is not consistent with F. and L. Esposito’s statistical evidence that partial oligopolies experience significantly more excess capacity during periods of growing aggregate demand than do tight oligopolistic industries. All else equal, for oligopolistic industries with high sales concentration, collective action to share maximal industry profit or to form a focal point on the optimal level of investment among competing firms is more likely to happen. In tight oligopolistic industries one might expect a rather smooth adjustment toward the new long-run equilibrium capacity level given an increase or decrease in demand. The statistical results in this study, contrary to the general expectation, imply that tacit investment coordination does not work well in tight oligopolistic industries. Thus, it is not surprising that chronic excess capacity exists in tight oligopolistic industries such as automobiles, aerospace, railway vehicles, and power-generators/ship-engines.

4. Excess Capacity and Big Deals 249
V. Summary and Concluding Remarks

The yearly average growth rate of sales for “Big Deal” industries over the sample period is almost double the yearly average growth rate of sales for the manufacturing sector. Despite such favorable conditions on the demand side, the number of years in which capacity operating rates fell short of the 75% benchmark, defined as the capacity operating rate in economic downturns, is shown to be high for the auto, aerospace, railway vehicle, and power-generator/ship-engine industries. This statistical evidence indicates that structurally excessive capacity due to continual over-investment far in excess of growing aggregate demand over the sample period has existed for the above-mentioned industries. The level of excess capacity turns out to closely reflect demand shocks, after controlling for the effects of other explanatory variables. Nevertheless, reckless facility investment due to overly optimistic demand forecasting in the second half of the sample period (1994-1998), including the business bubble period of 1994-1996, is observed.

From the statistical analysis in this study, we can conclude that it is not feasible to attain the policy goal of successfully restructuring industries using government intervention as a tool for resource allocation since the government can not \textit{ex ante} control a variety of strategic behavioral patterns on the part of competing firms in an oligopolistic industry. For example, firms and industries with structurally high capital
intensity or long-term chronic excess capacity usually have high fixed costs. Thus, they have a strategic incentive to spread high fixed costs over more units of output. In this case, the government cannot forcefully control firms’ strategic behavior in response to changes in the business environment, and its ex post intervention in line with industrial policy may inevitably distort efficient resource allocation.

A firm’s strategic decision to maximize profits subject to the constraints existing in its business environment must be a rational behavior at the firm level even if it may bring about excess capacity at the industry level ex post. The statistical results in this study verify the theoretical inference that an excess capacity strategy may enable incumbents to threaten to expand output and cut prices following a competitor’s entry, thereby making entry unprofitable. It is also worth noting that this statistical result is partially attributable to incumbents’ exploitation of entry regulation policies. Incumbents seek to influence governmental entry regulations by intentionally keeping a certain level of excess capacity whenever a potential competitor tries to enter the market. If this inference holds true, entry deregulation will significantly reduce incumbents’ incentives to take such actions and engage in socially wasteful expansions of facilities.

The statistical result showing that the estimated TIGHT coefficient is positive and not statistically significant is contrary to general expectations. This empirical result shows that tacit investment coordination does not work well among
competitors in tight oligopolistic industries such as the auto, aerospace, railway vehicle, and power-generator/ship-engine industries. As a result, we can observe chronic excess capacity in these industries. However, the so called “Big Deal” policy to clear up chronic excess capacity is going too far in the sense that these business swaps, mergers and acquisitions, and consortiums may considerably deepen market concentration in relevant markets and thus significantly impair fair competition. It might be more desirable to allow a temporary cartel to be formed, for example in the form of autonomous output and investment coordination among competing firms, until the markets get back on the right track. However, institutional improvements in corporate governance and in the financing industry leading to strengthened market discipline are the most effective and essential remedies for the chronic excess capacity problem in the long run.
References


4. Excess Capacity and Big Deals 255
<Appendix 1> Fixed effects model with interactive term and time dummy

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Estimated Coefficient</th>
<th>Standard Error</th>
<th>T-value</th>
<th>Prob &gt;</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROWTHSA</td>
<td>-0.11299</td>
<td>0.03187</td>
<td>-3.546</td>
<td>0.0005</td>
<td></td>
</tr>
<tr>
<td>INVEST</td>
<td>0.00488</td>
<td>0.00061</td>
<td>8.048</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>KASA</td>
<td>-0.02103</td>
<td>0.01894</td>
<td>-1.110</td>
<td>0.2681</td>
<td></td>
</tr>
<tr>
<td>GROWTHSA*KASA</td>
<td>-0.00156</td>
<td>0.00050</td>
<td>-3.145</td>
<td>0.0019</td>
<td></td>
</tr>
<tr>
<td>ENTRY</td>
<td>9.55895</td>
<td>5.83317</td>
<td>1.639</td>
<td>0.1026</td>
<td></td>
</tr>
<tr>
<td>TIGHT</td>
<td>1.81597</td>
<td>2.27288</td>
<td>0.799</td>
<td>0.4251</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>-4.13198</td>
<td>4.98834</td>
<td>-0.828</td>
<td>0.4083</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>-5.99836</td>
<td>4.92611</td>
<td>-1.218</td>
<td>0.2245</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>-3.74463</td>
<td>5.01250</td>
<td>-0.747</td>
<td>0.4558</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>-9.10298</td>
<td>4.94060</td>
<td>-1.842</td>
<td>0.0666</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>-22.08962</td>
<td>4.79585</td>
<td>-4.606</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>-13.77812</td>
<td>4.82655</td>
<td>-2.855</td>
<td>0.0047</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>-11.49770</td>
<td>4.77812</td>
<td>-2.406</td>
<td>0.0169</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>-10.01537</td>
<td>4.81317</td>
<td>-2.081</td>
<td>0.0385</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>-11.71659</td>
<td>4.93592</td>
<td>-2.374</td>
<td>0.0184</td>
<td></td>
</tr>
</tbody>
</table>

Obs                                    255
\[ R^2 \]                                  0.3687
F Value                                  10.927
Prob> F                                  0.0001
<Appendix 2> Fixed effects model without interactive term and with time dummy

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Estimated Coefficient</th>
<th>Standard Error</th>
<th>T-value</th>
<th>Prob &gt;</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROWTHSA</td>
<td>-0.12182</td>
<td>0.03232</td>
<td>-3.769</td>
<td>0.0002</td>
<td></td>
</tr>
<tr>
<td>INVEST</td>
<td>0.00534</td>
<td>0.00060</td>
<td>8.916</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>KASA</td>
<td>-0.02562</td>
<td>0.01923</td>
<td>-1.332</td>
<td>0.1840</td>
<td></td>
</tr>
<tr>
<td>ENTRY</td>
<td>9.10113</td>
<td>5.93792</td>
<td>1.533</td>
<td>0.1267</td>
<td></td>
</tr>
<tr>
<td>TIGHT</td>
<td>2.08174</td>
<td>2.31281</td>
<td>0.900</td>
<td>0.3690</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>-2.24470</td>
<td>5.04259</td>
<td>-0.445</td>
<td>0.6566</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>-4.52988</td>
<td>4.99354</td>
<td>-0.907</td>
<td>0.3652</td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td>-1.38773</td>
<td>5.04671</td>
<td>-0.275</td>
<td>0.7836</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>-6.02048</td>
<td>4.93086</td>
<td>-1.221</td>
<td>0.2233</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>-20.85632</td>
<td>4.86713</td>
<td>-4.285</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>-11.21870</td>
<td>4.84436</td>
<td>-2.316</td>
<td>0.0214</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>-10.28550</td>
<td>4.84957</td>
<td>-2.121</td>
<td>0.0350</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>-7.95141</td>
<td>4.85534</td>
<td>-1.638</td>
<td>0.1028</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>-10.50868</td>
<td>5.01087</td>
<td>-2.097</td>
<td>0.0370</td>
<td></td>
</tr>
</tbody>
</table>

| Obs                   | 255                   |
| $R^2$                 | 0.3454                |
| F Value               | 10.610                |
| Prob > F              | 0.0001                |

4. Excess Capacity and Big Deals 257
### Appendix 3: Fixed effects model without interactive term and time dummy

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Estimated Coefficient</th>
<th>Standard Error</th>
<th>T-value</th>
<th>Prob &gt;</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROWTHSA</td>
<td>-0.11563</td>
<td>0.03178</td>
<td>-3.638</td>
<td>0.0003</td>
<td></td>
</tr>
<tr>
<td>INVEST</td>
<td>0.00529</td>
<td>0.00062</td>
<td>8.513</td>
<td>0.0001</td>
<td></td>
</tr>
<tr>
<td>KASA</td>
<td>-0.03549</td>
<td>0.01967</td>
<td>-1.804</td>
<td>0.0724</td>
<td></td>
</tr>
<tr>
<td>ENTRY</td>
<td>13.27615</td>
<td>5.81104</td>
<td>2.285</td>
<td>0.0232</td>
<td></td>
</tr>
<tr>
<td>TIGHT</td>
<td>2.24927</td>
<td>2.40189</td>
<td>0.936</td>
<td>0.3499</td>
<td></td>
</tr>
</tbody>
</table>

Obs. 255

$R^2$ 0.2925

F Value 22.083

Prob > F 0.0001
<Appendix 4> Descriptive Statistics of Major Variables

<All sample industries>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>278</td>
<td>16.94594</td>
<td>22.67267</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>292</td>
<td>23.48645</td>
<td>41.26479</td>
</tr>
<tr>
<td>KASA</td>
<td>292</td>
<td>67.08285</td>
<td>63.43374</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>292</td>
<td>26.26761</td>
<td>42.55249</td>
</tr>
</tbody>
</table>

* GROWTHKA denotes growth rate of tangible fixed asset.

< Semiconductors>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>27</td>
<td>7.72622</td>
<td>13.52128</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>27</td>
<td>45.57586</td>
<td>45.16796</td>
</tr>
<tr>
<td>KASA</td>
<td>27</td>
<td>95.71947</td>
<td>63.31509</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>27</td>
<td>39.79254</td>
<td>28.17260</td>
</tr>
</tbody>
</table>

<Petrochemicals>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>34</td>
<td>6.17233</td>
<td>11.97826</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>35</td>
<td>23.01113</td>
<td>46.69793</td>
</tr>
<tr>
<td>KASA</td>
<td>35</td>
<td>136.70679</td>
<td>119.13797</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>35</td>
<td>22.02951</td>
<td>30.14870</td>
</tr>
</tbody>
</table>

4. Excess Capacity and Big Deals 259
### <Automobiles>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>33</td>
<td>28.00376</td>
<td>16.95884</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>33</td>
<td>13.92849</td>
<td>15.90055</td>
</tr>
<tr>
<td>KASA</td>
<td>33</td>
<td>44.09902</td>
<td>13.76064</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>33</td>
<td>19.21519</td>
<td>23.18848</td>
</tr>
</tbody>
</table>

### <Aerospace>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>21</td>
<td>20.94557</td>
<td>59.86810</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>23</td>
<td>46.41254</td>
<td>80.96390</td>
</tr>
<tr>
<td>KASA</td>
<td>23</td>
<td>78.43135</td>
<td>54.37228</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>23</td>
<td>42.08427</td>
<td>80.46449</td>
</tr>
</tbody>
</table>

### <Railway vehicles>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>31</td>
<td>30.32945</td>
<td>18.57146</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>31</td>
<td>26.00628</td>
<td>59.04289</td>
</tr>
<tr>
<td>KASA</td>
<td>31</td>
<td>68.58566</td>
<td>41.38014</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>31</td>
<td>31.21077</td>
<td>58.70055</td>
</tr>
</tbody>
</table>

260 *Korean Chaebol in Transition: Road Ahead and Agenda*
## 4. Excess Capacity and Big Deals

### <Power-generators/Ship-engines>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>22</td>
<td>22.11013</td>
<td>12.94774</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>33</td>
<td>16.39606</td>
<td>20.21627</td>
</tr>
<tr>
<td>KASA</td>
<td>33</td>
<td>48.39773</td>
<td>20.54284</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>33</td>
<td>19.28661</td>
<td>36.45701</td>
</tr>
</tbody>
</table>

### <Oil refining>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>55</td>
<td>7.86319</td>
<td>13.35405</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>55</td>
<td>14.93861</td>
<td>31.00401</td>
</tr>
<tr>
<td>KASA</td>
<td>55</td>
<td>53.09594</td>
<td>47.49629</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>55</td>
<td>22.38181</td>
<td>33.47927</td>
</tr>
</tbody>
</table>

### <Electronics>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCA</td>
<td>55</td>
<td>19.44384</td>
<td>11.29304</td>
</tr>
<tr>
<td>GROWTHSA</td>
<td>55</td>
<td>20.47432</td>
<td>14.77708</td>
</tr>
<tr>
<td>KASA</td>
<td>55</td>
<td>42.11425</td>
<td>32.62807</td>
</tr>
<tr>
<td>GROWTHKA</td>
<td>55</td>
<td>25.23055</td>
<td>41.51808</td>
</tr>
</tbody>
</table>
5. An Evolution of Korean Business Groups: Resources, Organizations, and Business Portfolios

Hicheon Kim, Jung Wha Han, and Robert E. Hoskisson
I. Introduction

Diversified business groups play significant roles in the economies of many countries. The Korean economy is not an exception. Korean business groups, called chaebol, are key competitors in most major industries. By 1996, the 30 largest chaebol accounted for 40% of Korea’s total output. The largest chaebol, such as Samsung, Hyundai, LG, and Daewoo had as many as 80 affiliated companies that operated in a wide range of industries, including semiconductors, consumer electronics, construction, shipbuilding, automobiles, trading, and financial services (Ungson, Steers, and Park, 1997).

Until recently, the chaebol were regarded as the drivers behind the unprecedented success of the Korean economy (Amsden, 1989). Being credited with having successfully transformed themselves from exporters of cheap products to global players in major industries, the chaebol were expected to move the Korean economy into high-technology areas. However, since the Asian currency crisis hit the Korean economy, this expectation has changed quite dramatically. Currently, the chaebol are often described as being globally non-competitive because of excessive diversification and poor management, and, instead of fostering growth, they are seen as a cause of the economic crisis. Some scholars go even further, suggesting that the chaebol should be broken up in order for the Korean economy to advance. Indeed, the government has forced many of the chaebol to restructure.
their business portfolios and become “focused,” as did many U.S. firms during the 1980s and 1990s (Bowman and Singh, 1993).

However, systematic research and theories are necessary before a reliable conclusion can be drawn about the restructuring of the chaebol. Accordingly, the purpose of this research is to evaluate the theoretical underpinnings of the diversification strategy of the chaebol and suggest future directions. Underlying our analysis are two theoretical propositions about the economics of diversification strategy. The first proposition is that the value-creation potential of diversification depends on the quality of the underlying economic institutions supporting the economy. Different institutional contexts offer different types of value-creation opportunities, which can be exploited using a diversification strategy (Khanna and Palepu, 1997). As institutional contexts evolve, so should diversification strategies. A certain type of diversification strategy that adds value may eventually become non-viable, not because it was a poor strategy when it was first developed but because the evolution of institutional contexts makes it outdated. Thus, institutional contexts and their evolution should be taken into account in evaluating the diversification strategies of the chaebol.

The second proposition is that the strategy-structure fit is a key determinant of the performance of any diversified firm (Hoskisson, Hill, and Kim, 1993). Firms that choose related diversification and those that choose unrelated
diversification pursue different economic benefits that necessitate different organizational arrangements. Organizational structures for realizing the economic benefits associated with related business diversification may not be appropriate for unrelated business diversification. This strategy-structure contingency proposition suggests that an unrelated business structure is not necessarily less efficient if supported with proper organizational arrangements. There are multiple ways of achieving the strategy-structure fit of diversified firms.

This paper is organized as follows. First, after reviewing the literature on the relationship between economic institutions and the economics of diversification, we evaluate the evolution of the chaebol’s diversification process in relation to the evolution of the Korean institutional context. Then, we evaluate chaebol diversification from the strategy-structure contingency perspective. Finally, we suggest possible future directions with regards to diversification strategies for the chaebol as well as policy implications to facilitate economic efficiency.

II. Economic Institutions and Diversification

1. Theoretical Perspectives

1.1 Market Failure, Diversified Firms, and Business
Groups

Transaction cost economics explains the existence of the firm in terms of market failure (Coase, 1937). If resources and activities necessary to run businesses can be efficiently organized through market transactions, there is no economic rationale for the multiproduct firm to exist. In this situation, a nexus of market contracts can perform what the multiproduct firm can do – and probably more efficiently. Therefore, according to the logic of transaction cost economics, the multiproduct firm exists as an economic institution mitigating inefficiencies stemming from market failure.

Extending the logic of transaction cost economics, Williamson (1975) provided an economic rationale for conglomerates that rapidly grew in the U.S. during the 1960s. He attributed the emergence of conglomerates primarily to inefficiencies in external capital markets. External capital markets fail in two ways. First, outside investors are at a substantial disadvantage, relative to managers, in obtaining access to inside information about the firm, which results in information asymmetries between investors and managers. Such information asymmetries indicate that managers could opportunistically misrepresent the position of the firm to investors (Fama, 1980). Second, even though investors detect management problems, they are quite limited in exerting influence on management in a cost-efficient manner. Of course, it is possible to replace the under-performing management team through a hostile takeover bid, but this is
an expensive course of action. Information asymmetries and governance inefficiencies imply that external capital markets are limited in their ability to achieve an efficient allocation of resources and discipline under-performing firms effectively.

Williamson (1975) contended that conglomerates – as internal capital markets – could overcome inefficiencies associated with external capital markets. He observed that headquarters in conglomerates performed roles analogous to those of investors in external capital markets. They not only allocate scarce resources among divisions, but also evaluate and control them. Williamson argued that headquarters, as internal investors, have advantages over investors in external capital markets. Headquarters possess rich information concerning the status of each division through internal information and auditing systems. In addition, due to their hierarchical power, headquarters can intervene in divisional affairs if necessary. They can mandate changes in strategy and operating policies, manipulate reward systems, or simply replace uncooperative, under-performing divisional managers without incurring extensive costs associated with hostile takeovers.

Due to these advantages, Williamson argued that the internal capital market of the conglomerate could achieve a more nearly optimal allocation of capital and manage divisions more effectively than the external capital market if each division were an independent firm. That is, the conglomerate with a multidivisional (M-form) structure is

270 Korean Chaebol in Transition: Road Ahead and Agenda
“capitalism’s creative response to the evident limits which the capital market experiences in its relations with the firm” (Williamson, 1970, p.140).

In a similar vein, several scholars have proposed that the business group is an organizational solution to problems arising from market failures (Encaoua and Jacquemin, 1982; Goto, 1982; Khanna and Palepu, 1997; Leff, 1978). In fact, the business group is a common phenomenon found in developing countries whose economic institutions (e.g., capital market, labor market, product market, and legal system) are inadequately developed or simply do not exist (Leff, 1978). In this context, vertical integration and diversification would be necessary to secure access to intermediate products and services, often resulting in business groups with diversified business portfolios. The diversified business portfolio, in turn, constitutes the backbone of the internal market for sharing scarce resources such as financial and human capital across subsidiaries. For this reason, Leff (1978, p.668) described business groups as an “institutional innovation for overcoming – and reaping the benefits from – imperfect markets in the less developed countries.”

Encaoua and Jacquemin (1982) empirically studied the effects of business group membership. Their hypothesis was that the more an industry was subject to market failure, the more prevalent firms affiliated with business groups would be. They measured the degree of market failure using economies of scale, R&D intensity, capital intensity, and
The findings, based on 1974 French data, were in support of the hypothesis. Using a similar methodology on a 1983 sample of Korean firms, Zeile (1996) found similar results.

Khanna and Palepu (1998) compared group-affiliated firms with unaffiliated firms in India. Until the diversification level of the group reached a certain point, group-affiliated firms under-performed unaffiliated firms. However, beyond this threshold, the benefits of group-level diversification seemed to outweigh the accompanying costs. Indeed, in the case of groups whose diversification level surpassed the threshold, group-affiliated firms outperformed unaffiliated firms. Khanna and Palepu (2000) obtained similar findings from the longitudinal analysis of Chilean data.

1.2 Evolution of Economic Institutions and Economics of Diversification

The economics of diversification and business groups depends partly on how efficient external markets are. To the extent that the internal markets of business groups are more efficient than external markets, business groups can add value. If external markets are non-existent or poorly performing, it is relatively easy to create value through internal markets based on diversified business portfolios. With the improvement of external markets, however, it becomes increasingly difficult for internal markets to accumulate and allocate resources more efficiently. Thus, the economics of business groups is determined by the relative efficiency of
internal versus external markets.

The history of diversification among U.S. firms is a case in point (Goold and Luchs, 1993). During the 1960s, conglomerates were hailed as an innovation of the corporate form (Berg, 1973; Dundas and Richardson, 1982). Such conglomerates as Textron and ITT displayed outstanding profitability and growth while diversifying into unrelated areas through a series of acquisitions.

For example, Textron rapidly grew by acquiring firms that had not been able to attain their true intrinsic value due to a lack of capital and management skills. Textron provided the acquired firms with additional capital mobilized from existing businesses. Given the underdevelopment of capital markets at that time, such internal financing capabilities based on a diversified business structure gained strategic significance. In addition, professional managers at the headquarters served as the “managers of managers” providing general management consulting to divisional managers (Berg, 1969). Considering the shortage of professional managers at the time, sharing their general management skills added to the divisional competitive advantage. In short, Textron was able to enhance the value of acquired firms by supplying capital and general management skills, which were in short supply (Berg, 1965, 1969).

With the development of U.S. capital markets in size and efficiency, however, it became increasingly difficult to locate under-valued firms. Furthermore, as firms could efficiently raise funds from capital markets, internal financing

5. An Evolution of Korean Business Groups 273
capabilities sharply declined in significance. The rapid expansion of business schools and consulting businesses such as McKinsey led to an increased supply of professional managers, which decreased the importance of headquarters’ general management skills to divisions. As such, the development of capital and labor markets made it increasingly difficult for internal markets to add value. Indeed, corporate raiders such as Carl Icahn and T. Boone Pickens in the 1980s demonstrated that the internal market of some conglomerates were no longer adding value by realizing huge profits in breaking up and restructuring inefficient conglomerates.

In sum, the value-creating potential of diversified business portfolios is a function of economic institutions (Khanna and Palepu, 1997). When external markets are non-existent or poorly performing, internal market capabilities based on a diversified business structure can be a source of competitive advantage and growth. To build internal markets, diversified businesses need not be related to each other. Rather, unrelated diversification might increase the stability of internal markets. On the other hand, as external markets develop and become efficient, the superiority of internal markets relative to external ones declines. In this situation, related diversification around core competences is likely to become more important because value-creation through internal market capabilities becomes increasingly difficult (Berger and Ofek, 1995; Lang and Stulz, 1994).
2. Evaluation of the Chaebol

2.1 Government-driven Economic Development and the Chaebol

Korea started her industrialization with the launching of the first five-year economic development plan in 1962. Lacking adequate resources, experience, and economic institutions, the government opted to seek rapid economic growth by pursuing initiatives to jump-start the industrialization process. The government designated some sectors as “strategic” and as the beneficiaries of the concentration of scarce resources and efforts. To boost the strategic sectors rapidly, the government arranged for foreign technologies and funds to be available at favorable terms, and provided other subsidies. The government strategy of targeting certain industries offered both risks and opportunities to firms. Entering into new industries certainly entailed high risks. By entering into strategic sectors, on the other hand, firms were able to gain access to scarce resources such as foreign technologies and capital at favorable terms.

In the early stages of economic development, it was almost impossible to raise large amounts of funds through domestic sources because of the underdeveloped nature of capital markets in both size and efficiency. Only the government could borrow abroad and channel these funds into strategic or export-oriented sectors at below-market interest rates. Firms that diversified into strategic sectors in response to the government’s initiative could readily secure...
funds, diversify their business portfolios, and grow into big business groups. In contrast, companies sticking to their core businesses at that time were very likely to atrophy or fail (Korea Economic Research Institute, 1995).

Once diversified business structures were in place, business groups could multiply the use of internal capital. When a new subsidiary was established, equity and working capital could be provided by other subsidiaries. Given the backwardness of external capital markets, such internal financing capabilities were essential to funding the rapid growth of business groups.

Diversified business structures also helped business groups raise funds from external markets. Due to the lack and ambiguity of company information, financial institutions tended to prefer large, diversified companies to specialized or small- and medium-sized ones. Some listed companies known for high profitability often went bankrupt overnight as their financial statements turned out to be fabricated. In this context, financial institutions preferred large, diversified companies and asked for debt-guarantees from other subsidiaries of the business group, which lowered the financial costs to business groups.

Also, the size and diversified business structure of business groups were helpful for securing high-quality human resources. In Korean society, which is hierarchical by nature, working for large companies per se is attractive to job seekers (Han, 1995). Furthermore, business groups generated many opportunities for promotions and career
development by continuously expanding into new promising areas (Amsden, 1989). In the absence of well-developed external labor markets, the size and diversity of business groups’ internal labor markets attracted high-quality human capital.

The absence of external labor markets made it difficult to hire junior and senior managers from the outside, which was a barrier to starting new businesses. Business groups, however, could overcome this barrier by transferring managers across subsidiaries (Amsden, 1989). KERI’s research (1995), based on a sample of the five largest business groups, showed that in launching new ventures they usually filled managerial positions by transferring managers from existing subsidiaries. This was true even when new ventures were not related to existing businesses. The transfer of managers facilitated the diffusion of technologies and management know-how within the group (Amsden, 1997; Kim, 1997b). Internal labor market capabilities enabled business groups to accumulate and utilize human capital in an efficient way.

During the early stages of economic development, markets for intermediate products were poorly developed, which could have been another barrier to starting new businesses. LG Chairman Koo Cha-Kyung explained the group’s successive moves into new business fields in the following way (Aguilar and Cho, 1985, p.3):

My father and I started a cosmetic cream factory in
the late 1940s. At the time, no company could supply us with plastic caps of adequate quality for cream jars, so we had to start a plastics business. Plastic caps alone were not sufficient to run the plastic molding plant, so we added combs, toothbrushes, and soap boxes. This plastics business also led us to manufacture electric fan blades and telephone cases, which in turn led us to manufacture electrical and electronic products and telecommunication equipment. The plastics business also took us into oil refining, which needed a tanker shipping company. The oil refining company alone was paying an insurance premium amounting to more than half the total revenue of the then largest insurance company in Korea. Thus, an insurance company was started. This natural step-by-step evolution through related businesses resulted in the Lucky-Goldstar group as we see it today.

The early process of LG’s business expansion was characterized as (1) vertical integration to procure necessary parts and services of its own and (2) related diversification to utilize over-capacity. Of course, this is not the only reason for business groups to diversify. Yet, some diversification moves – which are now regarded as unrelated – started as vertical integration to secure intermediate products and services or as related diversification to utilize excess capacity. To sum up, the early rapid growth of business groups was
ascribed to arduous efforts on the part of business groups to overcome problems stemming from poor economic institutions. Since capital markets, labor markets, and intermediate product markets were less developed, companies had no choice but to generate these resources internally. As internal markets, business groups could secure intermediate products and accumulate and share capital and human resources. The business group’s diversification process reflects as much efforts to build internal markets in response to market failure as an entrepreneurial spirit to take advantage of new business opportunities.

2.2 Economic Liberalization and the Chaebol

In the late 1970s, the government set out to support massive investment in heavy industries with the same determination and tools it had applied to light industries in the 1960s and early 1970s. However, by the end of the decade, the domestic heavy industries experienced serious ailments that gave rise to skepticism as to the government’s ability to produce economic development. In addition, major trading partners asked for economic liberalization, including reductions in the government’s support and import barriers. In response, starting with the fifth economic development plan (1982-1986), economic policies came to emphasize the reduction of direct government control over the private sector and the move toward market-based systems. Thus, the government’s role shifted from a “developmental” to a “regulatory” approach (Kim, 1997a).
During the 1960s and 1970s, financial services were under the strict control of government planners. Only the government or its agents could borrow abroad and they were the primary sources of capital for domestic firms. Beginning in the 1980s, however, the government initiated financial liberalization, which aimed at drastically reducing the government’s role in the allocation of credit and at gradually building an autonomous financial services sector. For instance, five leading commercial banks were denationalized in the early 1980s; preferential interest rates for target sectors were eliminated; and banks were allowed to introduce a series of new financial investment instruments. The development of the financial services sector implied that companies could more easily raise larger amounts of funds than in the past. With the development of external capital markets, the relative significance of the internal financing capabilities of business groups declined.

In terms of human resources, the number of colleges and universities increased substantially, which enlarged the supply of human capital. External labor markets started to develop, following the opening of domestic markets to foreign companies. Foreign companies were eager to recruit senior as well as junior managers from other Korean firms. More recently, in the wake of downsizing in response to the currency crisis, the lifetime employment practice, long considered as a given for workers, has been breaking down. As such, Korean managers are focusing on maintaining “employability” rather than life-time employment and are
willing to move to another company if doing so can increase their market value. The current exodus of engineers and managers at large firms into entrepreneurial start-ups reflects this change. The increased supply of human resources and development of external labor markets decreased the relative importance of the internal labor market aspect of business groups.

Competition in product markets increased over time. With the improvement of capital and labor markets, fewer controls on foreign direct investment and other deregulations, new market entries proliferated and market competition intensified. For instance, in the 1960s Samsung was heavily concentrated in the textile and sugar industries, Hyundai in construction, and LG in electrical/electronics. However, they are now intense rivals in most major industries such as electronics, heavy industries, and financial services. Increased competition often leads to the availability of efficient markets from which to source intermediate products, giving rise to the recent outsourcing trend. Increased efficiency in product markets might turn the previous capabilities for obtaining intermediate products inside business groups into core rigidities (Leonard-Barton, 1995).

In sum, economic liberalization and development lead to expansion and the improvement of the capital, labor, and product markets. Accordingly, the efficiency of internal markets in business groups – relative to external markets – declined.
III. Strategy–structure Fit

1. Theoretical Perspectives

A stream of research posits that diversification by itself is not sufficient to create value and that it should be accompanied by adequate organizational arrangements (Hoskisson, Hill, and Kim, 1993; Hill and Hoskisson, 1987). According to this research stream, related diversification and unrelated diversification aim at different economic benefits, which impose different and often conflicting organizational requirements on firms. Firms that diversify into related sectors are appropriate to realize economies of scope, which require an M-form structure emphasizing cooperation among divisions. On the other hand, firms that diversify into unrelated sectors are appropriate to realize economic benefits from internal capital markets, which require an M-form structure emphasizing competition among divisions. Thus, the literature identifies two different variants of the basic M-form model: cooperative and competitive (Hill, Hitt, and Hoskisson, 1992).

1.1 Competitive M–form

If a conglomerate seeks economic benefits from the internal capital market, as Williamson argued, it should have an M-form structure with the following characteristics. First, divisions should have full autonomy so that divisional ma-
Managers can be held accountable for divisional performance. Second, the evaluation of divisions should be based on objective, financial criteria. Third, incentive systems for divisional managers should be linked to divisional performance. Finally, cash flows should be allocated between divisions by the headquarters to high yield uses on a competitive basis, rather than returned to source divisions.

In a competitive M-form, the headquarters serves as an investor and divisions can be analogous to individual firms in external capital markets. As an internal investor, the headquarters evaluates the performance and future prospects of divisions and makes investment decisions accordingly. Conversely, divisions can receive more resources and rewards from the headquarters by demonstrating high performance. In fact, it is the competitive M-form that is consistent with Williamson’s portrayal of the M-form structure.

1.2 Cooperative M-form

Within the M-form structure, coordination between divisions is necessary to realize economies of scope through the transfer of skills and sharing of resources among divisions (Hoskisson, Hill, and Kim, 1993). Galbraith (1995) suggests that some degree of centralization is required to achieve such coordination. Minzberg (1983) also contends that when various divisions share specific functions such as R&D and distribution, the headquarters should manage these functions centrally. Note that Williamson (1975) labeled
such a centralized M-form as “corrupted” and less efficient than a pure M-form. However, studies by Hill (1998) and Markides and Williamson (1994) found that the centralized M-form is more effective at realizing synergies inherent in related diversification than the pure M-form (or the competitive M-form structure mentioned above).

Coordinating operations and decisions between divisions creates some difficulties in evaluating divisional performance (Hoskisson, Hill, and Kim, 1993; Govindarajan and Fisher, 1990). When divisions lack complete autonomy with regard to operations and strategic decisions, the objective rate of return criteria do not constitute unambiguous indicators of divisional performance (Alchian and Demsetz, 1972). The poor financial performance of a certain division might result from inefficiency at the focal division, from inefficiency at another division with which it is tightly coupled, or from incompetent interventions by the headquarters. Without access to additional information, it can be difficult to assign accountability. This is probably why Williamson referred to this form as “corrupted.”

To resolve such ambiguity problems requires an increase in information, both in amount and quality (Daft and Lengel, 1986; Govindarajan and Fisher, 1990; Ouchi, 1980). In a cooperative M-form structure, the headquarters typically bases its assessment of divisional performance on a wide range of criteria, which include subjective as well as objective ones such as the rate of return. Often these criteria are based on strategic as well as financial control conditions.
Moreover, such multiple criteria may be used when the headquarters allocates cash between competing divisions (Gupta and Govindarajan, 1986). Finally, to facilitate coordination between divisions, incentive systems for divisional managers should be linked to corporate as well as divisional performance (Gupta and Govindarajan, 1986; Kerr, 1985).

1.3 Organizational Incompatibilities
The above discussion maps out two distinctive variants of the M-form structure – competitive and cooperative (see Table 1 for a summary). Competitive and cooperative M-forms have different internal configurations with regard to centralization, coordination, evaluation, and incentive systems. The competitive M-form seeks to realize economic benefits from the internal capital market, emphasizing autonomy, accountability, and competition of individual divisions. By contrast, aimed at realizing economies of scope, the cooperative M-form stresses connection, cooperation, and coordination between divisions.

The radical differences between competitive and cooperative M-form structures imply that it may be difficult for diversified firms to simultaneously realize economies of scope and the economic benefits from internal capital markets (Hoskisson, Hill, and Kim, 1993). Coordination between divisions is necessary to realize economies of scope. However, such inter-division coordination decreases the autonomy and accountability of individual divisions, which
are essential conditions for internal capital markets. The realization of economies of scope, almost by definition, requires related business structures while the realization of the economic benefits from internal capital markets necessitates unrelated business structures.

This strategy-structure contingency argument is supported by the work of several authors. Hoskisson (1987) found that the adoption of a pure M-form (competitive M-form) improved the performance of unrelated diversified firms, but led to decreased performance in related diversified firms. In
Table 1: Comparison of Competitive and Cooperative M-form Structures

<table>
<thead>
<tr>
<th></th>
<th>Competitive M-form</th>
<th>Cooperative M-form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic benefits sought</td>
<td>Economies of internal capital markets</td>
<td>Economies of scope</td>
</tr>
<tr>
<td>Appropriate business portfolios</td>
<td>Unrelated</td>
<td>Related</td>
</tr>
<tr>
<td>Business-level decisions</td>
<td>Complete decentralization</td>
<td>Some centralization of critical functions</td>
</tr>
<tr>
<td>Inter-divisional coordination and integration</td>
<td>Non-existent</td>
<td>Moderate to extensive</td>
</tr>
<tr>
<td>Divisional performance appraisal</td>
<td>Primary reliance on objective, financial criteria</td>
<td>Mix of subjective strategic and objective criteria</td>
</tr>
<tr>
<td>Divisional incentive schemes</td>
<td>Linked to divisional performance</td>
<td>Linked to corporate as well as divisional performance</td>
</tr>
</tbody>
</table>

his study of large U.K. firms, Hill (1998) found that unrelated diversified firms performed better when organized in the competitive M-form rather than the cooperative M-form and that the reverse was the case for related diversified firms. In their study of large U.S. firms, Hill, Hitt, and Hoskisson (1992) documented similar findings. Hoskisson and Johnson (1992) found that the firms pursuing both related and unrelated diversification were more frequently restructured and that, as a consequence of restructuring,

5. An Evolution of Korean Business Groups 287
these firms moved towards more “pure” cooperative or competitive M-forms. They proposed that restructuring corrected difficulties associated with organizational incompatibilities between co-operative and competitive M-forms. Together, these findings indicate that the cooperative M-form is not necessarily “corrupted” and less efficient if used with related diversified firms, and that the strategy-structure fit is a central key to the performance of diversified firms. This finding is reiterated in a book that summarizes the restructuring literature among large diversified U.S. firms (Hoskisson and Hitt, 1994).

2. Evaluation of the Chaebol

At the early stages of economic development in Korea, business groups grew under the strong leadership of their founders (Shin, 1995). Founders made major decisions without much consultation with other managers, and systems and formal planning were minimal to non-existent (Churchill and Lewis, 1991). These founders were synonymous with the businesses that they initiated. The entrepreneurial spirit of these founders was conducive to rapid responses to opportunities arising from the industrialization process. Centralization of decision-making authority was also necessary to share and transfer scarce resources such as financial and human capital within the developing business groups.

However, with the growth of the business groups in size
and complexity, it became more difficult for the founders to make all the major decisions by themselves. Instead, the founders needed to delegate decisions, develop professional managers, and extend and refine formal control systems. In short, a transition from entrepreneurial to professional or system management was called for to meet the challenges arising from rapid growth (Roberts, 1993).

However, the rapid growth of business groups did not lead to as much decentralization and development of formal systems as it should have. Chairpersons still got deeply involved in the decision-making processes of subsidiaries with the assistance of a large staff at the headquarters. Even if operating decisions were delegated to subsidiaries, strategic decisions were often centralized. Major decisions such as the launch of new businesses, overseas expansion, large-scale investments, and the appointment of key executives were made by the chairpersons or at least they were consulted beforehand (Shin, 1995). As a consequence, professional managers’ roles in subsidiaries were quite limited and business groups were managed in a top-down fashion. In short, business groups in Korea were organized in a manner consistent with the co-operative M-form structure but pursued unrelated diversification, creating probable inefficiencies with regard to the strategy-structure fit.

2.1 Government-driven Economic Development and the Chaebol

At the early stages of economic development, business
groups competed at the low-end segments of global markets based on low-priced goods that allowed market entry, given their cost structures at the time. As such, however, they did not require advanced technological and marketing skills. Competent entrepreneurs – with the availability of low cost capital (supported by the government) and human resources – were able to move into many sectors and preempt emerging market opportunities.

Business groups’ ability to accumulate and share financial and human capital constituted a significant advantage.

During the industrialization process, new business opportunities proliferated. By entering into strategic sectors according to the government’s plan, business groups were able to obtain policy loans, which came at a reduced cost of capital, and enjoy monopolistic profits that became sources of capital for entry into additional markets. In general, market demand opportunities exceeded the supply capability of all firms combined. Thus, the preemption of strategic market opportunities was given priority over the development of a competitive advantage and of capability. In preempting new business opportunities, relatedness and associated capabilities were often not pursued because of a lack of incentive to create specialized strategic assets such as technological and marketing skills. This is consistent with the findings of Han (1995) that attractiveness of industries counted more than relatedness among existing internal capabilities in the CEO’s decisions regarding which businesses to enter.
Business groups could enter new markets rapidly and cost-efficiently by utilizing cheaply and readily available capital subsidized externally, and capital and human resources accumulated internally. Diversification appeared attractive for two reasons. By diversifying, business groups were able to preempt attractive business opportunities, reduce group risk, and build internal markets. A market entry that was considered to be unrelated in terms of market and technology was “related” because market entry was made possible by transferring and sharing capital and human resources among the subsidiaries.

In entering into the shipbuilding industry, for example, the Hyundai group claimed that, despite ostensible differences between shipbuilding and construction, they were related in “building things.” Synergies arising from “building things” might seem as an oversimplification or justification, but accumulated experience in project feasibility studies, project task force formation, purchase of foreign technical assistance, training, equipment purchase, new plant design and construction, and operation of project start-ups in the construction business helped set up the new shipbuilding business. The headquarters played a key role in coordinating the transfer and sharing of resources and expertise between subsidiaries.

In sum, business groups diversified their business structure while utilizing accumulated capital, human resources, and general management skills. Thus, some diversification moves that are considered unrelated now were
indeed “related” at that time in terms of sharing crucial resources such as capital, human resources, and general management skills. Such related business portfolios were in agreement with the cooperative M-form structure.

2.2 Economic Liberalization and the Chaebol

As the supply of capital and human resources expanded, the availability of capital and human resources inside groups per se became less significant. Furthermore, increased competition in domestic and global markets, along with sharp increases in domestic factor costs, made domestic firms less competitive. Accordingly, to be globally competitive, they needed to develop a stronger focus on specialized strategic assets such as technological and marketing skills.

With changes in economic institutions and competitive environments, the significance of generic resources (capital and human resources) declined and that of specialized resources (technological and marketing skills) increased as sources of competitive advantage. From the standpoint of specialized resources, the business portfolios of business groups were often unrelated. However, groups continued to be managed in a top-down fashion consistent with a cooperative M-form structure. As such, the strategy-structure relationship became misaligned. That is, unrelated diversified groups were organized according to the cooperative M-form structure.

Moreover, this strategy-structure misfit became a stumbling block in the accumulation of specialized resources.

292 Korean Chaebol in Transition : Road Ahead and Agenda
Under the centralized organization system, it was impossible for subsidiaries to have the strategic autonomy necessary to establish a long-term vision, build specialized resources, and develop business models. Given the widely diversified business portfolio, the groups’ headquarters were severely limited in their ability to guide each subsidiary in this regard. Group culture emphasized homogeneity within a business group and was another stumbling block for each subsidiary to develop its own differentiated strategy and systems. Thus, it was difficult to move the system either to the competitive or the cooperative M-form with matching diversification strategies.

IV. Future Direction of Business Groups

As indicated above, in terms of diversification strategy, Korean business groups exhibit a shallow strategy-structure fit. While business groups generally pursue unrelated business diversification strategies, they are managed primarily using a cooperative M-form structure. Thus, business groups need to evolve so as to regain a strategy-structure fit.

One direction is to adopt a competitive M-form, which readily fits the unrelated business portfolios that presently exists. To create high-performing competitive M-forms, resources, organizations, and business portfolios should be aligned with each other (Collis and Montgomery, 1998).
Take the example of Tyco International. Tyco is a typical conglomerate organized around six operating groups, selling various products such as fire protection, flow control, packaging materials and the like in about sixty countries. Contrary to the widely held negative view of conglomerates, Tyco is succeeding in becoming an excellent corporation based on an unrelated business diversification strategy. In 1997, *Business Week* included Tyco on its list of “stars you may never have heard of.”

Tyco’s headquarters are not engaged directly in divisional management, but rather pursue such general tasks as acquisitions, restructuring, and division evaluation. Also, although it offers advice on general management to divisions, it holds division presidents accountable for the financial performance of their individual units. Due to the broad applicability of its capabilities, including mergers and acquisitions, division evaluation, and general management, Tyco is capable of diversifying into a wide range of businesses.

Tyco’s organization system is based on the independence and accountability of individual divisions. The division presidents serve as *de facto* CEOs by making decisions without the headquarters’ intervention. Tyco’s “no meetings, no memos” philosophy reflects its intention of maintaining the independence of divisions by minimizing coordination across them. Based on these principles, the divisions are evaluated and rewarded according to their financial performance in a highly disciplined way. While the weight of base
pay is relatively small, bonuses are determined by the division’s performance and there is no cap on them.

Although Tyco is characteristic of a firm pursuing an unrelated business diversification strategy, it sets limits on the kinds of businesses it can own. Tyco confines itself to businesses in which division executives can be held strictly accountable for a limited number of financial measures. For this reason, Tyco competes in mature, stable, and low-technology businesses, which face less uncertainty and require considerably lower levels of R&D spending.

Accordingly, to maintain alignment among core competencies, organization system, and business structure, the strategy Tyco has put in place entails significant trade-offs. Even if there are potential synergies between divisions, Tyco does not seek to realize them. The reason is that the basic organizing principles of autonomy and accountability cannot function properly if coordination between divisions is implemented for the realization of synergies.

Tyco also does not expand into high-technology areas. The high-technology sector is full of uncertainty, ambiguity, and continual change which require much more information processing than what is available through the short-term financial criteria produced by Tyco’s control system. Furthermore, in Tyco’s current system, division managers have incentives to trade future potentials for immediate gains by reducing long-term R&D investments (given the stress on short-term financial results), which are essential to survival and prosperity in high-technology areas.

5. An Evolution of Korean Business Groups 295
Another direction is to evolve toward a cooperative M-form. Sharp Corporation is a good case in point. Sharp’s valuable resources are a set of specialized opto-electronic technologies that contribute to the competitive advantage of the company’s core businesses. Its most successful technology has been liquid crystal displays (LCDs), which are critical components in nearly all Sharp products. Other valuable resources are embedded in organizational capabilities allowing Sharp to converge technologies scattered throughout the firm into new product innovations. For example, Wizard, a new combination of established technologies such as LCD, ASIC and software, is an innovation in product concept—not in technology.

Sharp’s corporate organization focuses on coordination and integration between organizational units. Such coordination and integration are essential to investing in platform technologies and new product innovations through technology fusion. Each year, nearly one-third of Sharp’s corporate R&D budget is spent on the development of platform technologies. Sharp employs product managers who have responsibility—but not authority—for coordinating the entire set of value chain activities. And the company convenes an enormous number of cross-unit and corporate committees, the purpose of which is to exchange ideas and information and coordinate activities between units.

Such organizational systems that focus on coordination and integration make it difficult to evaluate individual divisions by a few objective financial indicators. Because of
the blurred accountability due to shared activities and coordinated decisions, Sharp uses not only simple financial indicators but also special evaluation indexes suited to the nature of each division. On top of these, the headquarters’ subjective evaluation is an important element. Promotion rather than annual compensation is the most powerful incentive, and employees are promoted on the basis of seniority, teamwork, and communication skills. Such evaluation and incentive systems are used primarily to create value through coordination and integration that focus more on cooperation than on competition between functional units or divisions.

Sharp’s set of businesses is fairly restricted: television and video systems, communications and audio systems, appliances, information systems, and electronic components. The reason is that Sharp’s core competencies are specialized assets such as platform technologies and organizational capabilities.

Like Tyco, Sharp makes its own strategic trade-offs to maintain alignment between core competencies, organization, and business portfolio. Sharp has a corporate office of more than 1,500 people, equivalent to 5 percent of total employees. This indicates that coordination incurs high costs. Thus, Sharp restricts itself to a set of businesses that have enough potential for synergy creation by sharing platform technologies and technology fusion. By restricting its business scope, Sharp foregoes some business opportunities, but this might be the price to pay for maintaining alignment.

5. An Evolution of Korean Business Groups 297
among the company’s resources, organization, and business portfolio.

In sum, Tyco and Sharp have sustained a corporate advantage over time, but their configurations of resources, organization, and businesses are quite different from each other. Tyco has built a successful diversified firm around the competitive M-form while Sharp has built another around the cooperative M-form.

V. Discussion and Conclusions

Following the currency crisis, business groups have been under pressure to restructure their businesses. The prevailing view can be summarized as the “focus hypothesis.” According to this hypothesis, business groups might be the outcome of government-driven economic development under poor market systems, but they have lost economic vigor over time. Thus, their future is bleak if their business scope is not reduced and focused as the U.S. diversified firms did during the 1980s. However, it should be noted that this focus hypothesis is predicated on two assumptions. The first assumption is that there is a best strategy for diversified firms – i.e., one size fits all diversification strategy. However, as discussed earlier, the strategy-structure fit is what matters and there are multiple ways of achieving fit. Achieving a fit around the cooperative M-form like Sharp is a good solution, yet it is not the only one.

As the Tyco case suggests, conglomerates, despite the
negative view about them, can create a corporate advantage if aligned with appropriate organizational systems. Recall that this is the case even in the U.S. where economic institutions are the best worldwide and where conglomerates are viewed negatively. The Korean business group’s problem lies not so much in the unrelatedness of its business portfolio as in the misfit between its corporate resources, organization, and business portfolio. The centralized M-form structure is not adequate to create value based on unrelated business portfolios.

The second assumption is that business groups should also play a leading role in developing high-technology areas. The rationale is that to build global competitiveness in high-technology areas, business groups have no choice but to be focused. However, it is often entrepreneurial start-ups that introduce radical technological innovations and later dominate high-technology areas (Utterback, 1994; Christensen, 1997). U.S. global competitiveness in high-technology areas can be traced to institutional contexts that stimulate the creation and growth of entrepreneurial start-ups.

Taken together, the hypothesis that business groups should focus to regain competitiveness is based on tenuous assumptions. There is no best strategy for diversified firms and there are multiple ways of creating value while pursuing a diversified business portfolio. Each business group should design its own model. However, it should be corporate managers – not government officials – who decide how to achieve what fit.
References


5. An Evolution of Korean Business Groups 301


Hill, C. W. L., Hitt, M. A., and Hoskisson, R. E., “Cooperative versus competitive structures in related


Khanna, T. and Palepu, K., “Why focused strategies may be


1983.
6. What to Focus on? : Corporate Restructuring Based on Strategic and Dynamic Relatedness

Ji-Hwan Lee and Costas Markides
I. Introduction

After decades of continuous and aggressive expansion into new business sectors, the Korean chaebol are now under pressure to perform a totally opposite mandate: Restructuring “back to the core.”

Even though this movement is gaining greater salience these days, the notion that the chaebol need to concentrate on core industries is not an entirely new one in Korea. Through the industry specialization policy of 1993, the Ministry of Trade, Industry and Energy asked each of the 30 largest chaebol to select two to three core industries and tried to confer benefits upon affiliated companies operating in the core industries of the chaebol (Cho and Lee, 1993).

Whereas industry specialization was initiated by the government with a view to enhancing the international competitiveness of the nation’s major industries and alleviating the excessive economic power of the chaebol, the current need for restructuring has been triggered by stronger and multi-directional forces (from within and outside the chaebol). The chaebol have been limited by their growth-oriented management philosophy as well as by a public antagonistic to such monopolistic entities, especially since the turmoil of the financial crisis at the end of 1997. As quite a few chaebol went bankrupt at last and the survivors cannot maintain a high level of debt any more, almost all chaebol are pursuing so-called “performance-driven changes” (Donaldson, 1999) in their portfolio structure and business
practices. As such, the scale of the current wave of restructuring is expected to be the largest one so far in the history of modern business entities in Korea.

Yet, while much attention is being paid to the backward restructuring process by divestiture and merger, it is not so evident to determine which group of industries should be the core in each chaebol. Perhaps this might be one of the reasons why the above-mentioned industry specialization policy of the early 1990s disappeared without any visible results. At a glance, it looks easy to choose core businesses and those related to them, once we have existing criteria such as the Standard Industrial Classification (SIC) system. However, unless they help firms achieve sustainable competitiveness, guiding corporate restructuring with those readily available tools is inappropriate at best and destructive at worst.

In this paper, we propose a theoretical platform for the current restructuring of the chaebol, and highlight the importance of strategic assets and core competence in measuring relatedness between businesses. A showcase of industry reclassification based on “strategic relatedness” is illustrated through a multivariate empirical analysis with data from a Web-based survey. We conclude with practical implications and suggestions for corporate managers and government policymakers.

6. What to Focus on? 309
II. Diversification and Refocusing

These days “restructuring” has become one of the most frequently used words in Korea. Yet, it does not seem to be used with any focus. Indeed, corporate restructuring means various corporate actions that lead to discrete changes in business portfolios, the number of employees or plants, the level of empowerment, ownership structures, financial ratios, external coalitions, organizational culture, and so on.

In general, corporate restructuring alludes to three types: portfolio, financial and organizational restructuring (Bowman and Singh, 1990). Portfolio restructuring refers to changes in the set of businesses comprising a firm to create a more effective configuration of businesses. Financial restructuring mainly involves changes in the capital structure of the firm. For example, in the 1980s many large U.S. firms increased their financial leverage through high levels of debt, thereby reducing the likelihood of a takeover. The current wave of restructuring by heavily indebted Korean chaebol, however, aims to achieve the opposite. They were put under pressure by the government, through the country’s main leading banks, to bring down their debt-equity ratio from over 400% to 200% by the end of 1999 and to all but eliminate their cross-debt guarantees among affiliated companies by the end of 2000. The other type of restructuring, organizational, largely means a radical transformation of a firm’s organizational structure including systems, processes and constituents.
These three types of restructuring are often interdependent and take place simultaneously. In this study, given the current agenda facing the chaebol, we will focus on portfolio restructuring, also called “refocusing.” By refocusing we mean the decision made by a firm to reduce the scope of its activities in order to concentrate on its core businesses (Markides, 1995).\(^1\) In the rest of this section, we briefly present the conceptual framework and possible reasons that are forcing the chaebol to refocus, a sudden reversal from the trend of diversification observed so far.

In the strategy literature, it is accepted that a firm cannot diversify indefinitely without running into diseconomies of scope. Empirical research has confirmed that the relationship between diversification and profitability is not linear but curvilinear. There exists a positive relationship between diversification and changes in profitability up to a certain level of diversification, but the relationship turns negative at higher levels of diversification (Markides, 1995; Hoskisson and Hitt, 1990; Grant, Jammime, and Thomas, 1988). Figure 1 shows the curvilinear or quadratic relationship between diversification level and firm performance.

To understand the above relationship further, it is necessary to briefly review the literature on the optimal level of diversification. The limit to how much a firm can diversify can be formulated in terms of marginal benefits (MB) and marginal costs (MC) to diversification.

---

\(^1\) There are also other terms for these activities: de-conglomerating, de-diversifying, getting back to basics, returning to corporate specialization, etc.
Through diversification, corporations try to attain various benefits such as a reduction in operating risk, economies of scope and exploitation of excess firm-specific assets (Teece, 1982), market-power (Berry, 1971), and financial advantages including tax benefits (Galai and Masulis, 1972). Some industrial organization economists suggest that diversification allows firms to overcome size limitations that occur due to declining product-demand curves or rising factor-supply curves (Jwa, 1997).

The literature not only identifies the various benefits of diversification but also shows that the marginal benefits to diversification tend to decrease as the firm diversifies further away from its core competencies. For instance, Montgomery and Wernerfelt (1988) argued that a firm contemplating

---

312 *Korean Chaebol in Transition: Road Ahead and Agenda*
diversification would first try to apply its excess firm-specific assets to the closest market it can enter. If excess capacity remains, the firm will enter markets even further afield. But, as these factors are applied in more distant fields, they lose their competitive advantage and thus earn lower profits. This implies that the marginal benefits to diversification decrease as the firm further diversifies.

The above benefits to diversification are not obtained without costs. The costs of diversification identified in the literature include loss or distortion of information in the firm’s hierarchy (Williamson, 1975), difficulty in managing and coordinating divisions to exploit the linkages between them (Keren and Levhari, 1983), and mismanagement of divisions taking place when top managers continue to apply one dominant logic on different kinds of businesses (Prahalad and Bettis, 1986).

The literature suggests that these costs increase as the level of diversification increases. This is because the loss or distortion of information increases as the firm’s hierarchy becomes steeper (Williamson, 1967), or because the cost of applying an inappropriate dominant logic increases more steeply as a firm enters into areas that are more remote from its familiar ones (Prahalad and Bettis, 1986).

When we combine the decreasing MB curve and the increasing MC curve, we get the graph shown in Figure 2 (Markides, 1995). This graph shows the conceptual existence of an equilibrium diversification level $D^*$. 2) This is the

---

2) This might be an oversimplification because we do not know that the actual
optimal level of diversification, where the marginal benefits to diversification equal its marginal costs. This is also the point A* in Figure 1, where maximum profitability is achieved. It is important to note that different firms have different optimal levels of diversification. Each firm has different MB and MC curves, and consequently different optimal points. Moreover, these curves tend to change over time.

*Figure 2* Marginal Benefits, Marginal Costs, the Optimal Level of Diversification

---

MB and MC curves are monotonically declining and rising, respectively. As Markides (1995, pp.172-173) admitted, “There are possibilities of multiple equilibrium, no equilibrium, and a continually shifting frontier of equilibrium.” However, these possibilities do not seem to seriously affect our analysis in this study. Here, we are concerned with whether the chaebol are in a state beyond the optimal diversification limit (be it first, second, or third). In addition, it is highly unlikely that firms in reality have infinite learning abilities so that they can manage to continually push forward their optimal levels.

314 *Korean Chaebol in Transition : Road Ahead and Agenda*
Given the theoretical framework discussed so far, the argument proposed by Markides (1995) is that U.S. and European firms diversified beyond their optimal levels in 1960-1980 (for numerous reasons), and that since then they have been refocusing to return to their optimal levels. This conceptual framework explains why an increase in focus, as opposed to further diversification, enhanced value for most (but not all) diversified firms in advanced economies in the 1980s.

Therefore, if the chaebol have indeed gone beyond the optimal level of diversification, the current movement to reduce their diversification level will certainly pay off. Admittedly, estimating the marginal benefit and marginal cost functions of diversification for each chaebol is quite complex and beyond the purpose of this study. However, whatever the actual forms of the MB and MC curves are, even casual observations reveal several forces that might have decreased the benefits or increased the costs of diversification in Korea. For example, the relative advantage of the internal capital market created by a diversified business group might have eroded as a result of improvements in the efficiency of the external capital market.\(^3\) Higher flexibility and mobility in the external labor market may have also diminished the relative advantage of internal systems for training and reallocating employees. On the other hand, because of increased competition and complexity in the business environment (due, for example, to

---

3) For an empirical study of the U.S. case in the 1980s, see Bhide (1990).
liberalization and globalization), such activities as information processing and coordination of divisions are becoming more costly. In addition, the legitimization of hostile MandAs, the emergence of active minor shareholder groups, and greater demand for more and better disclosure of corporate information increase the potential costs of diversifying into non-core businesses.

The shifts in the MB and MC curves and the resultant decrease in the optimal diversification level can be shown graphically as in Figure 3. In this situation, a firm that used to be diversified up to its optimal level may fall into a state of disequilibrium (here, over-diversification), even though it does not increase its diversification level.

*<Figure 3> Shift in the Optimal Level of Diversification*
III. Relatedness between Businesses:
“Mind the Gap”

Many scholars have argued that the potential for realizing economies of scope is the main (if not the only) justification for a diversified firm (Teece, 1982; Porter, 1985; Kanter, 1989) and that related diversification is superior to unrelated diversification (Rumelt, 1974; Palepu, 1985; Singh and Montgomery, 1987). This is based on the possibility that a related diversifier can gain a competitive advantage by exploiting synergies among its different but related businesses (divisions, strategic business units, SBUs, or affiliated companies). In this regard, measuring relatedness between businesses has been of particular interest to strategy researchers. In fact, the theoretical considerations in the previous section have limited practical usefulness unless we have the answer to the following question: “Do we really know which industries are related?”

The traditional measures for diversification developed in the earlier years of diversification research rely mostly on SIC (Standard Industrial Classification). In deciding relatedness, SIC-based measures have been accepted by researchers because of their objectivity and time-efficiency. SIC tables are easily found in most countries, and the SIC codes of a firm’s businesses can usually be identified with the help of public data sources.\(^4\) The basic classification criteria of SIC are summarized as physical traits of the final

\(^4\) In this study, we use only the primary SIC code of each division.

6. What to Focus on? 317
goods or services; types and usage of the goods or services; and manufacturing process or technology of the goods or services (Ministry of Trade and Industry, 1997).

The simplest way to measure diversification is to count the number of SIC sectors in which a firm is competing. Researchers determine the scope of an industry, say 2-digit SIC, 3-digit SIC, or whatever. Other measures such as Berry’s (Berry, 1971) and Gort’s (Gort, 1962) indices consider the share of each SIC segment in the total sales or assets of a firm, but here again, allocating SIC codes to each business is the critical issue. Basically, these tools are measures for unrelated diversification, where businesses with different SICs (by the digit determined by researchers) are assumed to be dissimilar businesses.

The entropy index of diversification (Jacquemin and Berry, 1979; Palepu, 1985) is a more advanced tool within the group of SIC-based measures, in that it attempts to decompose a firm’s total diversification into its related and unrelated parts. The entropy index typically assumes that if two businesses share the same SIC (for example, SIC 2517 and SIC 2534 share 2-digit SIC), they must have common input requirements and similar production and technology functions. The entropy index has been widely used among researchers, and several arguments have appeared in the literature advocating the use of this index. For example, Hoskisson et al. (1993) pointed out the construct validity of the entropy index as a reason for its use.

5) For details on the entropy index of diversification, see Appendix.

318 Korean Chaebol in Transition: Road Ahead and Agenda
Apart from SIC-based continuous measures of diversification, categorical measures have also been developed. The most famous one is Rumelt’s classification. On the basis of preceding work Wrigley (1970) and Rumelt (1974) devised a measure to capture the nature of a firm’s portfolio in terms of the relatedness between businesses. The crucial task here is to calculate a firm’s specialization ratio (SR) and related ratio (RR).\(^6\) These ratios can be calculated based on SIC codes and/or other sources such as company annual reports. Businesses are regarded as related “when a common skill, resource, market, or purpose applies to each (Rumelt, 1974, p.29).” This is an acceptable categorization, even though it inevitably relies on subjective judgement to some extent.

Unfortunately, both the SIC-based measures as well as Rumelt’s categories are not the best ways to measure relatedness because these traditional measures view relatedness mainly at the industry or market level, i.e., production processes and characteristics of output such as manufactured goods or provision of services, rather than looking at economic processes as they occur across and through industries. Among the critiques is the argument that traditional SIC-based approaches do not consider whether the inputs (or throughputs) shared by more than two businesses could be obtained easily by other firms which do not have those inputs in their own businesses (Markides and Williamson, 1994, 1996). If competitors could purchase

\(^{6}\) For details on Rumelt’s categories, see Appendix.

6. What to Focus on? 319
those inputs in competitive markets, we would not expect a
diversified firm running multiple businesses to have any
advantage over other firms.

The recognition of invalidity of traditional and popular
measures of relatedness in management studies has been
shared among many scholars and has brought about various
trials for measuring relatedness in different ways.

For instance, Nayyar (1992) argued that an external
examination of a firm’s businesses reveals only potential
relatedness, and that relatedness may lack external
transparency. Emphasizing the necessity of using internal
data instead of external data to look at actual relatedness, he
measured relatedness based on data obtained by
questionnaire surveys of large U.S. service firm CEOs. Each
respondent was asked to identify the 10 most significant
resources and businesses (with the respective proportion of
sales from each business), and to indicate the businesses in
which particular resources were used. Therefore, if particular
resources were used in more than two businesses, those
businesses were assumed to be related. Stimpert and
Duhaime (1997) also used internal data to study how
managers perceive their firms’ businesses to be related. They
found that managers also tend to perceive relatedness not
only through similarities in products, markets, and
technologies, but also through additional conceptualization
such as shared differentiation and marketing skills. For all
the improvements in capturing similarities between
businesses, however, these methods identify “strategic
importance” or “core competencies” only in a very implicit and abstract way.

As an alternative criterion of relatedness for research on Korean firms, Cho and Lee (1998) introduced an idea of a new Korean industrial classification system. Combining the resource-based perspective and the value-chain concept, they divided firms’ activities into several related groups. They argued that an industrial classification system should be made according to these activities in order to consider the source of a company’s core competence. In other words, industries are related when they share the source with which a company may carry out strategically important activities cheaper than competitors, or do it in a better way. Even though they emphasized strategically important activities, their new SIC framework has limits when it comes to the matter of practical utility. It seems to depend too much on a subjective and even arbitrary way of judging the strategic importance of activities, and pigeonholes industries into categories.

IV. Strategic Assets and Core Competencies

More objective research on measuring relatedness was initiated by Markides and Williamson (1994, 1996) based on the strategic assets identified by Verdin and Williamson (1994). Building from a resource-based view and their
critique of traditional measures addressed above, Markides and Williamson (1994) emphasized that related diversification will enhance performance if it allows a business to obtain preferential access to skills, assets, or competencies that cannot be easily purchased in a competitive market and that can help diversifiers create and accumulate new strategic assets more quickly and for cheaper than competitors, including non-diversifiers.

At the heart of the issue lie two fundamental perspectives distinct from other approaches to measuring relatedness. They aimed to capture the “strategic” and “dynamic” values of assets or resources, not just similarities in products, technology, or resources between divisions. First, SIC-based measures and Rumelt’s categories cannot properly value the strategic assets that underpin a firm’s cost or differentiation advantage and that are imperfectly duplicable, substitutable, and tradable (Peteraf, 1993). Suppose that Firm X provides an asset to a division by cross-utilizing that asset among sister divisions, and that the same asset can be easily purchased on the open market by any other firm at close to marginal cost. In that case, even if Firm X gets a short-term cost or differentiation advantage, it will not really achieve any sustainable competitive advantage over time: competitors will quickly reach similar positions by purchasing an equivalent asset.

Second, most of the measures of relatedness including SIC-based ones have limits because they tend to equate the benefits of relatedness with the static exploitation of
economies of scope by sharing the same assets. However, the real leverage of related diversification comes from exploiting relatedness more quickly and for cheaper than competitors 1) to improve the quality of an existing strategic asset in another division; 2) to create a new strategic asset in a new business; and 3) to expand the firm’s existing pool of core competencies. A diversified firm can derive long-term benefits from dynamic relatedness over and above the traditional benefits by sharing resources. For example, if a consumer electronics manufacturer has competence in building up a quality after-sales (A/S) service system (say, answering telephone inquiries, visiting service engineers, and parts delivery) in the TV business, it can have a positive influence in improving the quality of the A/S system in the PC division. This competence will also be helpful in creating another A/S system in a newly established DIY (Do It Yourself) appliances division, and vice versa.

In order to operationalize the concept of strategic relatedness, Markides and Williamson (1994, 1996) used structural indicators of the importance of similar types of non-tradable, non-substitutable and inimitable assets in different market environments. They divided these types of assets into five classes (consumer assets, channel assets, input assets, process assets, and market knowledge assets), and developed structural indicators to quantify the importance of strategic assets in each industry. A detailed explanation will follow in the next section.
V. Industry Clusters Based on Strategic Relatedness

In this section, we try to identify related businesses in Korea based on the conceptual framework mentioned above. Using hierarchical cluster analysis, we show strategically-related industry groups as an illustration.

As briefly introduced earlier, Verdin and Williamson (1994, p.83) distinguished five classes of strategic (non-tradable, non-substitutable, and inimitable) assets: 1) Customer assets, such as customer loyalty, brand recognition, and installed base; 2) Channel assets, such as established channel access, distributor loyalty, and pipeline stock; 3) Input assets, such as loyalty of suppliers, human resource development system, knowledge of imperfect factor markets, and financial capacity; 4) Process assets, such as proprietary technology, product or market specific functional experience, and organizational systems; and 5) Market knowledge assets, such as accumulated information and the systems and processes to access new information on the goals and behaviors of competitors, price elasticity of demand, market reaction to different phases of the business cycle, etc.

In conducting a cluster analysis, it is required to include as many dimensions as possible to avoid masking important differences between the cases of clusters (Hambrick, 1984). We used the eight structural indicators for four out of five classes of strategic assets in our empirical analysis Table 1.\(^7\)

---

\(^7\) Market knowledge assets were excluded due to difficulties in finding quantified indicators.

6. What to Focus on? 325
326 Korean Chaebol in Transition: Road Ahead and Agenda
### Table 1: Structural Indicators Used in This Study

<table>
<thead>
<tr>
<th>Strategic Asset</th>
<th>Structural Indicator</th>
<th>Competencies of importance captured by the structural indicators</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer assets</td>
<td>Infrequency of Purchase</td>
<td>Building successful brands and providing superior quality and service, which are more important when a product is purchased infrequently (and is normally expensive)</td>
<td>Percentage of sales from products which users generally purchase less than once a year</td>
</tr>
<tr>
<td></td>
<td>Media expenditure</td>
<td>Mass market brand building through effective media advertising, which can be more effectively transferred into a business when a firm has already much experience in another business</td>
<td>Expenditure on media advertising expressed as a percentage of the total sales</td>
</tr>
<tr>
<td></td>
<td>Service requirement</td>
<td>Establishing organizational capabilities for providing quality after-sale or technical service to customers</td>
<td>Percentage of sales from products requiring after-sale and/or technical service more than once a year</td>
</tr>
<tr>
<td>Channel assets</td>
<td>Channel dependence</td>
<td>Building and managing distribution and dealer networks to stabilize and expand sales through third party channels</td>
<td>Percentage of sales from products that pass through one or more intermediaries before reaching final users rather than being sold directly to users</td>
</tr>
<tr>
<td>Input assets</td>
<td>Labor intensity</td>
<td>Building firm-specific assets embodied in human capital through training, rotation, etc.</td>
<td>Percentage of employment costs to gross value added</td>
</tr>
<tr>
<td>Process assets</td>
<td>Product customization</td>
<td>Facilitating two-way communication with customers, the design and management of flexible manufacturing systems, and the reduction of lead times</td>
<td>Percentage of sales from product lines which are made-to-order based on customer specifications</td>
</tr>
<tr>
<td></td>
<td>Industry skill level</td>
<td>Developing skilled staff, which is more important when groups of skilled staff are involved in jobs requiring large amounts of capital expenditure</td>
<td>Machinery and equipment per capita in million won</td>
</tr>
<tr>
<td></td>
<td>R&amp;D intensity</td>
<td>Accumulating team experience in R&amp;D, which generates opportunities in other businesses</td>
<td>Expenditure on R&amp;D expressed as a percentage of the total sales</td>
</tr>
</tbody>
</table>
Each of the eight structural indicators is a proxy variable to capture the competencies that can be exploited by related diversifiers. For example, infrequently purchased goods (e.g., cars) in contrast to frequently purchased goods (e.g., toothpaste) tend to involve bigger financial expenditures. Accordingly, if a customer experiments with a new brand and gets it wrong, the penalty for trial will be high. Whereas frequently purchased products are more likely to win customers on their independent (from other activities or reputation of the manufacturer) merits or through trial and error, the sales of infrequently purchased goods are largely dependent on product quality, brand reputation, and accompanied services. When two or more divisions are manufacturers of relatively infrequently purchased products, chances are that they can improve overall performance by exploiting the strategic relatedness in terms of those relevant competencies.

1. Data, Method and Results

Markides and Williamson (1994, 1996) obtained the data for calculating these structural indicators from an old but unique survey supported by the U.S. government on the marketing cost ratios of U.S. manufacturers (Bailey, 1975). Because no such source is available in Korea, we collected

8) For a detailed exposition of the other structural indicators, see Verdin and Williamson (1994) and Markides and Williamson (1994, 1996).

6. What to Focus on? 325
data via two sources: a Web-based survey over the Internet and the Financial Statement Analysis (FSA) by the Bank of Korea (BOK).

Questionnaires were uploaded onto the Centerworld (http://www.centerworld.net) website, which is one of the most popular sites in Korea for people seeking information on business and the economy. A short notice of the survey was posted on the site’s homepage as well as in the webzine for the regular members of the site. Those who work for the planning and coordination department (or the marketing headquarters) of manufacturing companies\(^9\) were asked to fill in the short questionnaire. First we asked what was the primary business (in 3- or 4-digit SIC level) in which the respondent’s company was operating. Following were four questions measuring the structural indicators of each industry: infrequency of purchase, service requirements, channel dependence, and product customization.\(^{10}\) An

\(^9\) As was the case of the Bailey (1975) survey, non-manufacturing industries were excluded because of the basic differences in business processes.

\(^{10}\) The questions for these structural indicators were:

1. In your main line of business, what percentage of the sales is to consumers who purchase less than once a year? – infrequency of purchase
2. In your main line of business, what percentage of the sales requires after-sales and/or technical service more often than once in a year? – service requirement
3. In your main line of business, what percentage of the sales is sold primarily through agents or resellers (as compared to direct to end-users)? – channel dependence
4. In your main line of business, what percentage of the orders from your customers is filled by product units manufactured upon receipt of the

326 *Korean Chaebol in Transition: Road Ahead and Agenda*
eleven-point scale was used to indicate the level of structural indicators.\textsuperscript{11}

By the time we retrieved the answers 224 respondents had filled in the questionnaires and 188 responses were usable. Among all the respondents, two lucky winners were sent gift coupons through a random ballot.

We categorized the respondents’ companies according to the SIC codes used in the BOK’s annual FSA survey. In the manufacturing sector, eleven out of twelve 2-digit SICs were included in the analysis,\textsuperscript{12} and these were broken down as 3-to 5-digit SICs depending on the appropriate aggregate level of each industry. As a result, the respondents’ companies were classified into 64 industry segments (3, 4 or 5 SICs) that belong to one of eleven 2-digit SICs. A particular limit of our industry-level survey was that it could not cover all or a majority of the companies in each industry. If two companies in the same industry operate in totally different ways, our survey is doomed to fail to capture the industrial characteristics and to measure structural indicators.

To minimize this sort of flaw, we tried to secure at least two responses in each of the 64 industry segments, and simple arithmetic average values were adopted.\textsuperscript{13} For the 9

\begin{itemize}
\item For example, answers that fall between 0-5% have a value of 1. Likewise, 2 for 5-15%, 3 for 15-25%, … and 11 for 95-100%.
\item SIC 16 (Tobacco industry) is excluded because it is a government-owned company that has monopolized the production and sale of the domestic tobacco brands in Korea.
\item The precise method is to use sales in the primary business in question as
\end{itemize}

6. What to Focus on? 327
industry segments for which we had only one response, we identified the largest or second largest company and asked them to fill out the questionnaire. In the case where answers from the two respondents in the same industry segment showed a discrepancy of more than 30 percentage points (there was only one such case in our survey, SIC 2924, “machinery for mining, quarrying and construction” industry), we also found an additional respondent and excluded the seemingly exceptional respondent.\footnote{These cases may be due to the low reliability of our measures or due to real heterogeneity among players. These are of particular interest for further research. However, in this study we did not exclude this problematic industry because the abnormal respondent was not a major competitor.}

For the other four structural indicators other than those measured by the web-based survey, we referred to the BOK’s FSA statistics for 1997 (The Bank of Korea, 1998), where we obtained the values of proxy variables for the remaining four structural indicators, i.e., media expenditures, R&D requirements, industry skill level, and labor intensity.

Following the recommendation in the literature (e.g., Hambrick, 1984; Hair et al., 1995; Fajourn, 1998), the raw scores of the eight structural indicators for each industry were further standardized around their mean score across all manufacturing industries prior to clustering. A hierarchical cluster analysis using Ward’s method (George and Mallery, 1999) with squared Euclidean distance measures\footnote{The lower the squared Euclidean distance measure, the more similar industries are in terms of their structural indicators, and the more likely they} resulted

\textit{Korean Chaebol in Transition: Road Ahead and Agenda}
in eight industry clusters Table 2.\textsuperscript{16}) The resulting clusters reveal the related businesses based on core competencies that can be shared or transferred between businesses.

\begin{table}[h]
\centering
\caption{Industry Clusters Based on Strategic Relatedness}
\begin{tabular}{|c|p{10cm}|c|}
\hline
SIC code & Industry segments & Clusters \\
\hline
1511 & Production, processing & 1 \\
& & preserving of meat & & \\
& & meat products & & \\
1541,3,4 & Bakery products, & 1 \\
& & confectionery & & \\
& & & & \\
1542,5 & Sugar, condiments & 1 \\
& & & & \\
172 & Other textiles & 1 \\
18 & Wearing apparel & 1 \\
& & & & \\
192 & Footwear & 1 \\
21 & Pulp, paper & 1 \\
& & & & \\
2412 & Fertilizers & 1 \\
& & & & \\
2413 & Synthetic rubber & 1 \\
& & & & \\
& & & & \\
2424 & Soap & 1 \\
& & & & \\
& & & & \\
312 & Electricity & 1 \\
& & & & \\
3135,9 & Insulated wire & 1 \\
& & & & \\
& & & & \\
321 & Electronic valves, & 1 \\
& & & & \\
& & & & \\
323 & TV & 1 \\
& & & & \\
& & & & \\
342 & Bodies of motor & 1 \\
& & & & \\
& & & & \\
343 & Parts & 1 \\
& & & & \\
& & & & \\
36 & Furniture & 1 \\
& & & & \\
& & & & \\
1512 & Production, & 2 \\
& processing & & \\
& & preserving of & & \\
& & fish & & \\
& & & & \\
1513 & Production, & 2 \\
& & processing & & \\
& & preserving of & & \\
& & fish & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\
& & & & \\n\hline
\end{tabular}
\end{table}

are to be clustered. The calculation of the distance measure for each pair of industries results in an industry-by-industry similarity matrix that serves as the input for the subsequent cluster analysis.

\textsuperscript{16} The largest percentage increase in the clustering (agglomeration) coefficient was observed when moving from 2 clusters to 1. However, since this level of agglomeration would be hardly meaningful for our analysis, we decided to have 6 to 12 clusters. Among them, the percentage increase in the agglomeration coefficient was largest when moving from 8 to 7 clusters.

\textit{6. What to Focus on?} 329
<table>
<thead>
<tr>
<th>SIC code</th>
<th>Industry segments</th>
<th>Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1514</td>
<td>Vegetables and animal oils &amp; fats</td>
<td>2</td>
</tr>
<tr>
<td>191</td>
<td>Leather, luggage, handbags, saddlery and harness</td>
<td>2</td>
</tr>
<tr>
<td>223</td>
<td>Reproduction of recorded media</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>continued</strong></td>
<td></td>
</tr>
<tr>
<td>252</td>
<td>Plastic products</td>
<td>2</td>
</tr>
<tr>
<td>152</td>
<td>Dairy products</td>
<td>3</td>
</tr>
<tr>
<td>1548,9</td>
<td>Processing of food, beverages &amp; other food products</td>
<td>3</td>
</tr>
<tr>
<td>1551,2</td>
<td>Distilling &amp; blending of spirits &amp; fermented alcoholic beverages</td>
<td>3</td>
</tr>
<tr>
<td>1553</td>
<td>Malt &amp; malt liquors</td>
<td>3</td>
</tr>
<tr>
<td>1554</td>
<td>Ice &amp; soft drinks</td>
<td>3</td>
</tr>
<tr>
<td>153</td>
<td>Grain mill products, starch products &amp; prepared animal feeds</td>
<td>4</td>
</tr>
<tr>
<td>1711</td>
<td>Preparation, spinning &amp; weaving of textiles</td>
<td>4</td>
</tr>
<tr>
<td>1712</td>
<td>Bleaching, dyeing &amp; finishing textiles</td>
<td>4</td>
</tr>
<tr>
<td>2421</td>
<td>Pesticides and other agro-chemical products</td>
<td>4</td>
</tr>
<tr>
<td>243</td>
<td>Man-made fibers</td>
<td>4</td>
</tr>
<tr>
<td>2691,3</td>
<td>Ceramic products, structural non-refractory clay products</td>
<td>4</td>
</tr>
<tr>
<td>2695</td>
<td>Stone products, non-metallic mineral products n.e.c.</td>
<td>4</td>
</tr>
<tr>
<td>271</td>
<td>Basic iron &amp; steel</td>
<td>4</td>
</tr>
<tr>
<td>272</td>
<td>Basic precious &amp; non-ferrous metals</td>
<td>4</td>
</tr>
<tr>
<td>273</td>
<td>Casting of metals</td>
<td>4</td>
</tr>
<tr>
<td>289</td>
<td>Other fabricated metal products</td>
<td>4</td>
</tr>
<tr>
<td>322</td>
<td>Television &amp; radio transmitters &amp; apparatus for line telegraphy</td>
<td>4</td>
</tr>
<tr>
<td>351</td>
<td>Building &amp; repairing of ships and boats</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>Wood &amp; products of wool &amp; cork except furniture</td>
<td>5</td>
</tr>
<tr>
<td>281</td>
<td>Structural metal products, tanks, reservoirs &amp; steam generators</td>
<td>5</td>
</tr>
<tr>
<td>2915</td>
<td>Lifting &amp; handling equipment</td>
<td>5</td>
</tr>
<tr>
<td>2911,4,9</td>
<td>Other general purpose machinery</td>
<td>5</td>
</tr>
<tr>
<td>2921</td>
<td>Agricultural &amp; forestry machinery</td>
<td>5</td>
</tr>
<tr>
<td>2922</td>
<td>Machine-tools</td>
<td>5</td>
</tr>
<tr>
<td>2924</td>
<td>Machinery for mining, quarrying &amp; construction</td>
<td>5</td>
</tr>
<tr>
<td>2923,5,9</td>
<td>Other special purpose machinery</td>
<td>5</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
<td>Count</td>
</tr>
<tr>
<td>------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>30</td>
<td>Office, accounting &amp; computing machinery</td>
<td>5</td>
</tr>
<tr>
<td>311</td>
<td>Electric motors, generators &amp; transformers</td>
<td>5</td>
</tr>
<tr>
<td>331</td>
<td>Medical instruments, appliances for measuring checking &amp; testing</td>
<td>5</td>
</tr>
</tbody>
</table>

6. What to Focus on? 331
As we can see, a number of industries with different 2-digit SICs belong to the same clusters, implying that there are greater possibilities for exploiting strategic relatedness among these industries. For example, clusters 6, 7 and 8 do not share the same 2-digit SIC industries. We can also find that many industries with the same 2-digit SICs are now apart in different clusters, implying that relatedness among these industrial segments is not likely to contribute to increases in corporate performance in the long run.

Table 3 summarizes the average of each structural indicator for the eight clusters. It shows which competencies might be particularly important for businesses in each cluster.

<table>
<thead>
<tr>
<th>SIC code</th>
<th>Industry segments</th>
<th>Clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>332</td>
<td>Optical instruments &amp; photographic equipment</td>
<td>5</td>
</tr>
<tr>
<td>341</td>
<td>Motor vehicles</td>
<td>5</td>
</tr>
<tr>
<td>352,9</td>
<td>Railway locomotives, aircraft &amp; transport equipment n.e.c.</td>
<td>5</td>
</tr>
<tr>
<td>221,2</td>
<td>Publishing &amp; printing</td>
<td>6</td>
</tr>
<tr>
<td>2422</td>
<td>Paints, varnishes &amp; similar coating, printing ink &amp; mastics</td>
<td>6</td>
</tr>
<tr>
<td>2429</td>
<td>Chemical products n.e.c.</td>
<td>6</td>
</tr>
<tr>
<td>251</td>
<td>Rubber products</td>
<td>6</td>
</tr>
<tr>
<td>261</td>
<td>Glass and glass products</td>
<td>6</td>
</tr>
<tr>
<td>232</td>
<td>Refined petroleum products</td>
<td>7</td>
</tr>
<tr>
<td>2411</td>
<td>Basic chemicals, except fertilizers</td>
<td>7</td>
</tr>
<tr>
<td>2694</td>
<td>Cement, lime &amp; plaster</td>
<td>7</td>
</tr>
<tr>
<td>2423</td>
<td>Pharmaceuticals, medicinal chemicals &amp; botanical products</td>
<td>8</td>
</tr>
<tr>
<td>293</td>
<td>Domestic appliances n.e.c.</td>
<td>8</td>
</tr>
<tr>
<td>333</td>
<td>Watches, clocks &amp; parts</td>
<td>8</td>
</tr>
</tbody>
</table>

N.B) n.e.c. = not classical elsewhere.
to be <Table 3> Importance of Strategic Assets in Industry Clusters

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Infrequency of purchase*</th>
<th>Service requirement*</th>
<th>Channel dependence*</th>
<th>Product customization*</th>
<th>Media expenditures (%)</th>
<th>R&amp;D intensity (%)</th>
<th>Industry skill level (mil. won)</th>
<th>Labor intensity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.2</td>
<td>2.4</td>
<td>8.4</td>
<td>7.0</td>
<td>1.2</td>
<td>0.1</td>
<td>18.6</td>
<td>58.5</td>
</tr>
<tr>
<td>2</td>
<td>1.3</td>
<td>2.7</td>
<td>8.3</td>
<td>2.1</td>
<td>0.5</td>
<td>0.03</td>
<td>11.3</td>
<td>66.3</td>
</tr>
<tr>
<td>3</td>
<td>0.7</td>
<td>1.2</td>
<td>7.9</td>
<td>1.4</td>
<td>5.4</td>
<td>0.1</td>
<td>33.6</td>
<td>48.2</td>
</tr>
<tr>
<td>4</td>
<td>4.5</td>
<td>2.3</td>
<td>3.0</td>
<td>6.7</td>
<td>0.4</td>
<td>0.1</td>
<td>26.4</td>
<td>54.3</td>
</tr>
<tr>
<td>5</td>
<td>9.3</td>
<td>9.5</td>
<td>3.6</td>
<td>7.1</td>
<td>0.5</td>
<td>0.1</td>
<td>10.3</td>
<td>61.1</td>
</tr>
<tr>
<td>6</td>
<td>5.2</td>
<td>2.6</td>
<td>7.9</td>
<td>4.8</td>
<td>1.6</td>
<td>0.8</td>
<td>24.4</td>
<td>53.9</td>
</tr>
<tr>
<td>7</td>
<td>3.0</td>
<td>3.5</td>
<td>4.6</td>
<td>2.4</td>
<td>0.2</td>
<td>0.1</td>
<td>185.8</td>
<td>29.3</td>
</tr>
<tr>
<td>8</td>
<td>6.5</td>
<td>8.9</td>
<td>9.3</td>
<td>1.4</td>
<td>4.7</td>
<td>0.3</td>
<td>6.3</td>
<td>63.2</td>
</tr>
<tr>
<td>Mean</td>
<td>4.5</td>
<td>4.1</td>
<td>6.6</td>
<td>4.1</td>
<td>1.8</td>
<td>0.2</td>
<td>39.6</td>
<td>54.4</td>
</tr>
<tr>
<td>S.D.</td>
<td>2.8</td>
<td>3.2</td>
<td>2.5</td>
<td>2.6</td>
<td>2.1</td>
<td>0.3</td>
<td>59.8</td>
<td>11.6</td>
</tr>
</tbody>
</table>

* Scores on 11-point scale

successful. For example, cluster 5 is characterized by a high level of service requirement (9.5 out of 11), suggesting that related diversification among the businesses in cluster 5 will create more value to the firm when competencies concerning after-sales service are shared and transferred effectively among business units.

VI. Implications and Conclusion

As we mentioned earlier in this paper, there seems to be good reasons for many chaebol to reduce their diversification levels these days. Restructuring by selling off
unrelated businesses and focusing on related businesses in terms of product, market and technology would mean increases in the potential benefits from economies of scope by using common resources and transferring skills and knowledge among different affiliated companies. But, as we argued, it does not capture relatedness in strategic assets that cannot be accessed quickly and cheaply by competitors, and core competencies that create and accumulate new strategic assets over time.

Therefore, the chaebol’s refocusing effort should be accompanied by prudential efforts to look at the strategic relatedness between seemingly unrelated businesses and to find out the core competencies of each business group as a whole. While radical divestitures and mergers can help improve financial structures (i.e., lower debt-equity ratios), myopic approaches regarding relatedness could cause the break-up of strategic assets that need to be kept together for the long-term viability of business groups. If the chaebol consider the importance of strategic assets and core competencies, they can evaluate the value of each business in the context of their own conglomerate as a whole, and as a result future restructuring might be different from a cosmetic reshuffle.

The cluster exercise shown earlier in this paper tells us which industries are strategically related and what might be the important strategic assets in each industry group. Since each business group will have much better knowledge of its affiliated companies and the industries they are competing in,
it is also possible to measure the similarities between affiliated companies with firm-level (as compared to industry-level used in this study) structural indicators, which help detect strategic relatedness among affiliates and the potential competencies of each affiliate. The industry clusters obtained by the industry-level analysis in the last section can be used as references in understanding the industry characteristics for subsequent corporate portfolio strategies.

In addition to these implications on strategic relatedness, it must also be recognized that the current wave of refocusing does not mean the inevitable demise of diversification as a viable strategy in the Korean economy. As we saw in Figure 2 earlier, under-diversification (i.e., diversification level below the optimal level) as well as over-diversification mean that the firm is in a state of disequilibrium, that is, not realizing the maximum level of performance. Empirical research on U.S. firms (Markides, 1995) showed that even though many firms were refocusing in 1981-87, a large number of them continued to diversify during the same period. The net effect of some firms diversifying and some firms refocusing was a relatively small change in average diversification and concentration level in the economy as a whole. Certainly, a caveat is that refocusing and rationalizing activities must not trample entrepreneurship for the sake of revitalization and growth.

Finally, over and above the discussions on portfolio structure, we would like to emphasize the importance of
managerial capabilities. Unrelated diversification is vulnerable to various costs due to control loss, information distortion, or dominant logic and inappropriate intervention by corporate headquarters. Despite greater potential benefits from common resources, skills, knowledge and competencies, related diversification may also fail to outperform unrelated diversification because it is also costly to exploit the linkages between businesses (Hill, Hitt, and Hoskisson, 1992).

Corporate decisions on the scope of the firm must be accompanied with sensible formation and implementation of effective organizational mechanisms, including structural arrangements (e.g., divisional autonomy, evaluation system, and incentive schemes) and cultural integration (through, e.g., inter-divisional social interaction and shared values). Restructuring or refocusing is only one of numerous means for rebuilding competitiveness and improving performance. In fact, reform of the Korean chaebol must be directed not only at improving short-term cash flow or capital structure, but also at reinforcing their capabilities to identify their competencies and improve, accumulate and create strategic assets for long-term prosperity. Those chaebol with competence in re-mapping their businesses and managing diversity will outperform the external capital markets.\textsuperscript{17} In contrast, the chaebol without those competencies will keep

\textsuperscript{17} In a recent article, Eisenhardt and Brown (1999) argued that “Companies that patch well can outperform the most efficient capital markets.” By “patching,” they mean mapping and re-mapping business units swiftly against shifting market opportunities.

336 \textit{Korean Chaebol in Transition : Road Ahead and Agenda}
sinking, however talented they are in radically reshuffling their portfolio.
References


Eisenhardt, K. M. and Brown, S. L., “Patching: Restitching


6. What to Focus on? 339


Markides, C. C. and Williamson, P. J., “Related diversification, core competencies and corporate performance,” *Strategic Management Journal*, 15,


Ministry of Trade and Industry (Korea), Hankook Pyojoon Sanup Boonlyoo Pyo (Korean Standard Industrial Classification Table), 1997.


Prahalad, C. K. and Bettis, R. A., “The dominant logic: A


Wrigley, L., “Divisional autonomy and diversification,” D.B.

6. What to Focus on? 343
Appendix : Measurement of Diversification

Appendix I. The Entropy Index

(Jacquemin and Berry, 1979; Palepu, 1985)

The entropy index of diversification takes into consideration two elements of diversification: the number of industry segments in which a firm operates and the relative importance of each industry segment in the total sales (or assets) of the firm. Consider a firm (business group) operating in N industry segments, where an industry segment is defined as a 4-digit SIC industry. These industry segments aggregate into M industry groups, where an industry group is defined as a 2-digit SIC industry (and \( N \geq M \)). Let \( P_i \) be the share of the \( i \)th segment in the total sales of the firm. Then the entropy measure of total diversification (DT) is defined as follows:

\[
DT = \sum_{i=1}^{N} P_i \ln \left( \frac{1}{P_i} \right)
\]  \hspace{1cm} (1)

In addition, the index decomposes diversification into its related and unrelated parts. It is normally assumed that industry segments that belong to the same 2-digit industry group are related to each other, and that industry segments that belong to different 2-digit industry groups are unrelated. Let \( P_{ij} \) be the share of the segment \( i \) of group \( j \) in the total sales of the group. Then, we can define related
diversification within one industry group (DR$_j$) as:

$$DR_j = \sum_{i,j}^{N,M} P_{ij} \ln \left( \frac{1}{P_{ij}} \right)$$

(2)

Since the firm operates in several industry groups, we can define the firm’s related diversification (DR). Let $P_j$ be the share of the $j$th group sales in the total sales of the firm. Then,

$$DR = \sum_{j=1}^{M} P_j DR_j$$

(3)

Consistent with the definition of DT, the firm’s unrelated diversification (DU) is defined as:

$$DU = \sum_{j=1}^{M} P_j \ln \left( \frac{1}{P_j} \right)$$

(4)

From the above definition it can be shown that the sum of the related and unrelated components equals total diversification.

$$DR + DU = DT$$

(5)

The exemplary case of an imaginary chaebol $Z$ shown with Table A1 is to illustrate how I calculate the entropy index. From the KMCC (Korea Management Credit and Credit Rating Corporation) database, we obtain a primary 5-
digit SIC (Column 2) and sales (Column 3) for each subsidiary of chaebol Z. The total sales of chaebol Z, broken down by 4-digit SICs (Column 4) and 2-digit SICs (Column 6) are then simply identified. Then, we can calculate the entropy index of total diversification (DT : Sum of Column 5 = 2.185) by applying formula (1) above to the share of each 4-digit SIC. In turn, according to formula (4), I get the entropy index of unrelated diversification (DU : Sum of Column 7 = 1.709).

The entropy index of related diversification (DR) of chaebol Z can be obtained in two ways. First, following formula (5), I subtract DU from DT to find DR (2.185 – 1.709 = 0.476). Alternatively, according to formulae (3) and (4), I calculate the DR of chaebol Z as the weighted sum of DR in each 2-digit SIC in which chaebol Z is operating. Let \( DR_{XY} \) be the entropy index of related diversification with 2-digit SIC code XY of chaebol Z. Then, DR of chaebol Z is:

\[
(DR_{15} \times 0.44) + (DR_{51} \times 0.027) + (DR_{74} \times 0.006) + (DR_{92} \times 0.001) = 0.476.\]

This value exactly equals the result obtained through the previous method.

18) Note that \( DR_{XY} = 0 \) when there is only one 4-digit SIC in a given 2-digit SIC.

346 Korean Chaebol in Transition : Road Ahead and Agenda
## Table A1: Calculation of the Entropy Index
(An Example: Chaebol Z)

<table>
<thead>
<tr>
<th>(1) Company</th>
<th>(2) SICs</th>
<th>(3) Assets by Company</th>
<th>(4) Assets by digit SICs</th>
<th>(5) 4-Pi Ln (1/Pi)</th>
<th>(6) Assets by digit SICs</th>
<th>(7) 2-Pj Ln(1/Pj)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>15510</td>
<td>129,144</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BB</td>
<td>15510</td>
<td>103,658</td>
<td>232,802</td>
<td>0.121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>15520</td>
<td>202,596</td>
<td>202,596</td>
<td>0.109</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DD</td>
<td>15530</td>
<td>1,334,088</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE</td>
<td>15530</td>
<td>187,676</td>
<td><strong>1,521,764</strong></td>
<td>0.342</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FF</td>
<td>15540</td>
<td>662,048</td>
<td>662,048</td>
<td>0.235</td>
<td><strong>2,619,210</strong></td>
<td>0.366</td>
</tr>
<tr>
<td>GG</td>
<td>22110</td>
<td>282,299</td>
<td>282,299</td>
<td>0.138</td>
<td>282,299</td>
<td>0.138</td>
</tr>
<tr>
<td>HH</td>
<td>24290</td>
<td>8,716</td>
<td>8,716</td>
<td>0.009</td>
<td>8,716</td>
<td>0.009</td>
</tr>
<tr>
<td>II</td>
<td>26100</td>
<td>338,940</td>
<td>338,940</td>
<td>0.156</td>
<td>338,940</td>
<td>0.156</td>
</tr>
<tr>
<td>JJ</td>
<td>28990</td>
<td>154,658</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KK</td>
<td>28990</td>
<td>102,472</td>
<td>257,130</td>
<td>0.129</td>
<td>257,130</td>
<td>0.129</td>
</tr>
<tr>
<td>LL</td>
<td>29190</td>
<td>239,320</td>
<td>239,320</td>
<td>0.123</td>
<td>239,320</td>
<td>0.123</td>
</tr>
<tr>
<td>MM</td>
<td>32100</td>
<td>144,964</td>
<td>144,964</td>
<td>0.086</td>
<td>144,964</td>
<td>0.086</td>
</tr>
<tr>
<td>NN</td>
<td>45200</td>
<td>1,296,374</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OO</td>
<td>45200</td>
<td>620,487</td>
<td>1,916,861</td>
<td>0.361</td>
<td>1,916,861</td>
<td>0.361</td>
</tr>
<tr>
<td>PP</td>
<td>51200</td>
<td>72,853</td>
<td>72,853</td>
<td>0.051</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QQ</td>
<td>51910</td>
<td>260,429</td>
<td>260,429</td>
<td>0.130</td>
<td>333,282</td>
<td>0.154</td>
</tr>
<tr>
<td>RR</td>
<td>63030</td>
<td>17,664</td>
<td>17,664</td>
<td>0.016</td>
<td>17,664</td>
<td>0.016</td>
</tr>
<tr>
<td>SS</td>
<td>65990</td>
<td>33,251</td>
<td>33,251</td>
<td>0.027</td>
<td>33,251</td>
<td>0.027</td>
</tr>
<tr>
<td>TT</td>
<td>72200</td>
<td>41,728</td>
<td>41,728</td>
<td>0.033</td>
<td>41,728</td>
<td>0.033</td>
</tr>
<tr>
<td>UU</td>
<td>74200</td>
<td>13,386</td>
<td>13,386</td>
<td>0.013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VV</td>
<td>74300</td>
<td>94,229</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WW</td>
<td>74300</td>
<td>7,268</td>
<td>101,497</td>
<td>0.066</td>
<td>114,883</td>
<td>0.072</td>
</tr>
<tr>
<td>XX</td>
<td>92410</td>
<td>1,565</td>
<td>1,565</td>
<td>0.002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YY</td>
<td>92434</td>
<td>52,537</td>
<td>52,537</td>
<td>0.039</td>
<td>54,102</td>
<td>0.040</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>6,402,350</td>
<td>6,402,350</td>
<td><strong>2.185</strong></td>
<td>6,402,350</td>
<td><strong>1.709</strong></td>
</tr>
</tbody>
</table>

6. What to Focus on? 347
Appendix II. Rumelt’s Categories (Rumelt, 1974)

This is a categorical measure of diversification, based on the specialization ratio (SR) and the related ratio (RR). SR is defined as the proportion of a firm’s revenues that is attributable to its largest industry segment. RR is defined as the proportion of its revenues that is attributable to the largest group of industry segments that are related in some way to one another. In calculating RR, we primarily assume that different 4-digit SICs in the same 2-digit SIC are related. And then we try to determine whether businesses in different SICs have anything in common in terms of skill, resource, market, or purpose applied to each. Once the above two ratios are calculated for each firm, it is classified into one of the following categories:

- If SR > 95% → Single Business
- If 70% ≤ SR ≤ 95% → Dominant Business
- If SR < 70% and RR ≥ 70% → Related Business
- If RR < 70% → Unrelated Business

In the example of chaebol Z above, we see that the largest 4-digit SIC industry segment of chaebol Z is the one with SIC code 1553, which accounts for only 24% (SR) of total

19) Rumelt (1974) used another ratio, the vertical ratio (VR), which is excluded in my study. I regard vertical integration as a type of related diversification.
sales. The largest 2-digit SIC industry segment is the one with SIC code 15, which accounts for 41% (RR) of total sales. Because SIC 15 (food industry) does not seem to have anything in common with other industries in which chaebol Z is operating, we classify chaebol Z as “Unrelated Business (SR < 70% and RR < 70%).”
PART IV

Institutions and *Chaebol* Behavior

7. Economic Institutions, Business Diversification, and Economic Growth 351
7. Economic Institutions, Business Diversification, and Economic Growth: Empirical Evidence and Implications of Chaebol Behavior in Korea

Sung-Hee Jwa and In Woo Jun
I. Introduction

In Korea, economic concentration in large business groups, called chaebol, and the issue of the optimality of their diversification behavior has long been a subject of debate. It is often argued that the chaebol are excessively diversified and have grown too large, and as a result the Korean economy is said to suffer from excessive industrial concentration. To curb the propensity of the chaebol to diversify even more, many initiatives have been undertaken, such as policies to promote business specialization and the equity investment regulation in the Fair Trade Act. However, most of these policies have taken the form of direct regulations curbing the business activities of the chaebol. These policies, in effect, have side-stepped the issue altogether as they do not attack the sources or underlying causes of the chaebol’s diversification behavior and have thus generally been regarded as unsuccessful in achieving their goals. Therefore, before any policy prescription can be made, it is imperative to understand why the chaebol have diversified into various business activities.

In this paper, we will examine the determinants of corporate diversification within a cross-country setting by introducing institutional environment variables into the empirical analysis, which will allow us to acquire a better understanding of the motivation underlying firm diversification and to investigate the effects of economic institutions on economic growth. Then, from these analyses
we expect to derive several policy implications for the Korean economy as relates to chaebol diversification.

The paper consists of six sections. In the next section we introduce the theoretical background for the determinants of business diversification, including not only institutional factors but also the market environment. In Section 3, we will analyze firms’ diversification behavior using cross-country data at the firm as well as international levels. This will provide empirical evidence as to the factors that influence diversification behavior, in particular institutional factors, the corporate governance structure, the development of financial markets, overall market size, market competition and business risk. We extend our empirical analysis in Section 4 to investigate the relationship between economic institutions and economic growth. In Section 5, we look into the prospects of the diversification behavior of Korean firms, particularly the chaebol. Finally, in Section 6 we summarize the important results of this analysis and discuss policy implications.

II. Theoretical Background on the Determinants of Business Diversification

1. Property Rights Systems and Diversification

In the neoclassical world with no transaction costs,
institutions are exogenously determined without having any significant impact on the outcome of economic analysis. In other words, because neoclassical economics is institution-free and there are no explicit transaction costs in the model, differences in economic institutions are seen to have no effect on the process of resource allocation. Recently, however, the resurgence of new-institutionalism, led by North (1990, 1992) and Eggertsson (1990), has emphasized the importance of economic institutions in determining economic behavior and performance. According to this paradigm, in the non-zero transaction cost world, institutions influence economic behavior and the performance of economic agents by affecting the size of transaction costs they incur and therefore become a crucial factor in determining resource allocation and economic performance of the overall economy.

According to the new-institutional approach, the economic system can be described as consisting of individual economic agents, economic organizations that organize individual agents, and finally economic institutions that regulate the agents and organizations. Using this method of classification, one can analyze the effects of a given type of economic institution on the economic behavior of individual agents – for example, diversification behavior of firms, particularly the chaebol in Korea.

Williamson (1975, 1985) studied the determinants of diversification under the transaction cost view, which can also be classified as belonging to new-institutionalism in a
broader sense. Many proponents of the transaction cost view have focused on the analysis of vertical integration. Vertical integration has the effect of reducing transaction costs that arise from transaction-specific investments between contractors. Williamson has elaborated a transaction cost theory of the firm based on the two assumptions of bounded rationality and opportunism in the presence of uncertainty. He developed the concept of asset specificity as the characteristic of transactions that determine whether a transaction within the firm is efficient or not.¹) An asset is specific to a particular kind of transaction if it cannot be used productively in other activities of the firm. After an investment has been made, transactions that require a high specific investment are more likely to be brought into the firm to guard against possible exploitative behavior on the part of the firm’s opportunistic trading partners. Thus, the potentially high transaction costs stemming from specific investments tend to encourage vertically integrated diversification.

Here, we should also take note of the need to discriminate between the meanings of transaction costs among new-institutionalists. To do this, let us return to the argument of new-institutionalism by North and Eggertsson on the relationship between property rights, transaction costs and economic activities. One of the most important economic institutions in a market economy is the property rights system, which is a rule defining the relationship among

---

economic agents concerning the use of scarce economic resources. The transparency and security of a property rights system are considered to be the main determinants of the size of transaction costs. If a formal system of property rights protection is not clearly established or is not fully enforced – even though clearly defined – excessive transaction costs will be incurred. Therefore, in the real, non-zero transaction cost world, diversification, which is one of several economic activities of a firm, is inevitably affected by the property rights system in place. The fact that property rights are not well protected implies a low probability that all market contracts made with other agents will be fully honored and faithfully observed. Therefore, the more secure property rights are, the more active market contracts are because of lower transaction costs arising from the economic institutions in place. So we hypothesize that firms in countries with stronger property rights and thus lower transaction costs have more lines of business than firms in countries with higher transaction costs.

This hypothesis seems to run contradictory to Williamson’s argument. However, we can see that there are differences between the argument of North and Eggertsson and that of Williamson regarding the effects of transaction costs on economic activity. North argues that firms come into existence to take advantage of profitable opportunities. With weak property rights, poorly enforced laws, barriers to entry, and monopolistic restrictions, profit-maximizing firms will tend to have short time horizons and little fixed capital,
and will tend to be small. This argument implies that if a formal system of property rights protection is neither clearly established nor fully enforced, transaction costs will make the formation of large firms more difficult. As Lemelin (1982) argues, small firms have little capacity to diversify into many lines of business. Thus, we can conclude that in countries where property rights are not well protected, the level of corporate diversification will tend to be lower. Williamson, on the other hand, argues that if transaction costs come from transaction-specific investments between buyer and seller, they can be reduced through diversification.  

In sum, in a country where property rights become more secure, resulting in lower transaction costs, the level of diversification may increase because the strength of property rights tends to give rise to large firms that have a higher capacity to diversify than small ones. However, if transaction costs are not a factor determining the overall economic

2) According to Williamson, it is useful to consider the four levels of social analysis. The first level is social embeddedness. This is where the norms, customs, mores, traditions, etc. are located. The second level is referred to as the institutional environment. This level includes formal rules such as property rights, which has been the focus in this paper. However, he argues that although property rights remains important, a perfectly functioning legal system for contract laws is not contemplated in the second level. Therefore, he has focused on the third level, which is where the institutions of governance are located. Williamson’s view on the relationship between transaction costs and diversification can be understood at this level, which is where the governance of contractual relations becomes the focus of analysis. Accordingly, the effects of property rights on diversification which this paper investigates may appear contradictory to Williamson’s arguments. The fourth level is the level at which neoclassical analysis works. See Williamson (1999) for details on the four levels.
institutions in place but rather are a factor of the special relationship between firms with transaction-specific investments, firms will be inclined to increase the level of corporate diversification in order to reduce transaction costs. Transaction costs arising from technical characteristics, such as asset specificity, can be reduced through diversification, as Williamson argues. However, transaction costs from economic institutions such as property rights cannot be reduced through diversification because these institutions create an environment that acts as an absolute constraint that firms cannot overcome endogenously. If transaction costs from economic institutions are high, medium and small-sized firms with a lower capacity to diversify than larger firms will dominate. Thus, firms in countries with higher transaction costs arising from economic institutions are less diversified than firms in countries with lower transaction costs.

2. Corporate Governance and Diversification

Now let us consider institutional factors related to corporate governance systems. According to the agency cost theory, corporate assets may be deployed to benefit managers rather than shareholders. Particularly, a manager may pursue diversified expansion as a means of reducing his

3) Eggertsson (1990) argues that the agency cost theory is a branch of the transaction cost view. However, the agency view is different from the transaction cost view in that the former focuses on agency costs from agency relationships and the latter on transaction costs from transaction-specific investment.

4) Also see Mork, Shleifer, and Vishny (1988), p.293.
employment risk, thus improving his personal position. Such situations may arise when managers have more power than shareholders in corporate governance. Whether managers have more power than shareholders or not may depend on the legal conditions of the corporate governance system. Therefore, the level of diversification would be affected by the legal aspects of the corporate governance system.

On the other hand, the structure of corporate governance systems has recently been recognized as a factor determining competitiveness and consequently the economic performance of business corporations. The question of which system of corporate governance is ideal is constantly asked in the field of business economics. Through the perspective of agency theory, many financial economists have come to the conclusion that managers actually pursue value-reducing strategies to further their own interests at the expense of shareholders. 5) Mueller (1969) argues that mergers, particularly conglomerate mergers, appear to be a convenient vehicle for doing so.

3. Markets and Diversification

Market environments may also affect business diversification. Stigler (1968), who proposed a theory of the multi-product firm based on Adam Smith’s theory of specialization, suggested that a multiproduct firm’s scope of activity is determined by the interaction of production

technology and market size.\textsuperscript{6) According to Stigler’s theory, activities subject to economies of scale tend to become detached from the remaining set of activities as the size of the market grows large enough to support a scale of production that realizes these economies. Conversely, activities subject to diseconomies or weak economies of scale tend to be integrated in-house. Activities with economies of scale also become integrated if the size of the market is limited or the remaining set of activities exhibits particularly strong diseconomies of scale that dominate the concerned activity’s economies of scale.

Furthermore, according to Gort (1962), firms may diversify their operations in order to escape severe competition with their rivals or when they experience a loss of existing markets due to competition. On the other hand, competition may help optimize the level of diversification by driving firms to set their business organization to focus on their core competence in the hope of beating competing firms. Of course, even in this case, firms may continue to think that business diversification will eventually help them compete with their rivals, in particular if diversification does generate significant synergy effects, i.e., economies of scope.

On the other hand, it can be observed that unrelated activities may induce financial economies. The best indication of financial economies arising from unrelated

\textsuperscript{6) Jwa (1997) develops a theory of the scope of industrial activity based on market and technological factors by integrating the theories of the multiproduct firm by Stigler (1968) and Baumol, Panzar, and Willig (1982).}

\textit{7. Economic Institutions, Business Diversification, and Economic Growth 361}
diversification can be found in the market and hierarchies paradigm.\footnote{See Hill and Hoskisson (1987), p.332.} This suggests that unrelated diversification helps overcome external capital market failures. Firms pursuing a strategy of unrelated diversification can achieve a more optimal allocation of capital and can monitor their divisions more effectively than the external capital market.

4. Economic Policy Factors

As has been explained for the case of the Korean Economy, the business environment created by government policy may affect corporate diversification. By looking up recent historical evidence, we can see that despite weaknesses in the prevailing property rights system and the accompanying high transaction costs, the \textit{chaebol} have evolved under government discretionary protection and their behavior has thus far been influenced to a certain extent by government intervention.

A salient feature of Korea’s interventionist industrial policy is the government’s practice of preventing certain firms who have entered a targeted business area from going bankrupt.\footnote{During the 1970s, when Korea pursued the so-called heavy and chemical industries promotion policy, the government actively intervened in selecting the firms or entrepreneurs to enter the targeted industries and in providing the means to support them. If those selected firms were in danger of going bankrupt, the government intervened to arrange additional financial assistance or merger and acquisition procedures to save them. In recent years, this pattern of government intervention has been mitigated but remains effective to} The government has taken every possible
measure to revive these firms whenever they became inefficient and were in danger of insolvency. In this environment, the best choice for any firm may be to make a preemptive move into a business area that is subject to government entry regulation because, once allowed to enter, the firm’s survival is guaranteed. The government is thus seen as playing the dual roles of major initiator of and main restraint on much of the chaebol’s economic behavior. The availability of governmental favors has in fact motivated the chaebol to adopt the managerial strategy of diversification so as to secure and protect their private property rights and business activities, often adopting the “too-big-to-fail” strategy. Thus, this type of interventionist industrial policy may help explain some of the aspects of diversification behavior and will be especially important in explaining the chaebol’s unrelated diversification behavior.

Moreover, governmental support for industrial development in the form of easy policy loans gave major firms access to larger and larger resources. Therefore, in order to better utilize the available resources, those firms pursued diversification into various industrial activities that turned out to be individually under-scaled.

some extent. The government still has strong influence on who can enter important industries such as automobiles, steel, etc. Concerning the exit policy, the government has become much more lenient in letting non-competitive firms go bankrupt in recent years but is still very reluctant to see big firms in important industries fail. Therefore, the perception that once a firm is allowed to enter, then it will be easy for it to survive has weakened but is still around.
III. Cross-Country Analysis of Diversification Behavior

1. Model and Hypothesis

According to the theoretical implications on the determinants of diversification, we specify a regression model, Equation (1), for the cross-country analysis at the firm level. The dependent variable is the level of diversification (DIV), and the independent variables include institutional environment variables, such as property rights (PR), corporate governance (AR) and the legal origin of corporate law or the commercial code (LO). In addition, the level of financial development (GSR), market competition (MC), the market size of the national economy (MS), the size of firms (SF), and business risk (RK) are included in the regression as variables that may influence the level of diversification. The stochastic error term is denoted by $e$ and $\alpha_i$ is the parameters to be estimated.

$$DIV = \alpha_0 + \alpha_1 PR + \alpha_2 AR + \alpha_3 LO + \alpha_4 GSR + \alpha_5 MC + \alpha_6 MS + \alpha_7 SF + \alpha_8 RK + e$$

(1)

In countries where property rights are well protected, as North (1990) argues, firms tend to be large, and because large firms command more resources that can be used for diversification than smaller ones, the coefficient of property
rights should be positive.

The index of shareholder rights (AR) and the legal origin of corporate law, or the commercial code (LO), which measure the legal conditions in corporate governance, are included to see whether the corporate governance structure has any effect on diversification. We cannot expect \textit{a priori} the direction of these variables. However, we have seen that according to the agency cost theory, corporate assets may be deployed to benefit managers rather than shareholders.\footnote{See Mork, Shleifer, and Vishny (1988), pp.293-315.} That is, managers may pursue diversified expansion as a means of reducing their employment risk, thus improving their personal positions. This phenomenon may prevail when managers have more power over corporate governance than shareholders. Therefore, the coefficient that measures the degree of shareholder rights, that is, rights that make possible specific claims against the corporation, may be negative.

As regards the level of financial development (GSR), the degree of financial deepening in a country may reflect the accessibility of capital for diversification or expansion. The more the financial sector develops, the more opportunities firms have to finance diversification. As shown by Williamson, however, firms may enlarge their lines of business to reduce transaction costs under a weak and underdeveloped financial industry by pooling capital between business divisions. Therefore, we cannot predict \textit{a priori} the direction of the financial development coefficient.

\footnote{7. Economic Institutions, Business Diversification, and Economic Growth 365}
Market competition (MC) may have a positive or negative effect on diversification. As already mentioned, firms may diversify their operations in order to compete with their rivals. On the other hand, firms may shape their business organization so as to focus on their core competence in response to competition. Market competition has the effect of mitigating inefficient diversification and therefore helps optimize the level of diversification. Therefore, the direction of the effect of market competition on diversification cannot be foretold \textit{a priori}.

Market size (MS) will negatively affect diversification behavior since as it increases, benefits from large scale production stemming from an increased division of labor will emerge, as has already been discussed.

Finally, we include firm size (SF) and business risk (RK) in our analysis. These variables reflect the characteristics of firms. According to Lemelin (1982), larger firms have a greater capacity to diversify because they command more resources than smaller firms do. Therefore, we expect the coefficient of the size of a firm to be positive. Firm risk (RK) is included to control for diversification influenced by a firm’s motive to reduce risk. Thus, a firm’s strategy to reduce risk should yield a positive coefficient.

2. Overview of Data

2.1 Description of the Data Set

For the empirical analysis we use the Standard Industrial
Classification (SIC) data from the Company Analysis database supplied by PriMark. This database includes a profile indicating industries in which a firm is active by SIC code, and shows data on product segment sales. As of the end of June 1999, this database covered over 10,000 firms in 46 countries. We selected firms operating only in the non-financial industries and classified them according to our criteria, as is explained subsequently.

In order to make appropriate deductions from the regression analysis, two data sets have been constructed. The first set, sample A, contains 26 countries each represented by about 20 firms, while the second set, sample B, consists of 17 countries, each represented by about 50 firms.\(^\text{10}\) In selecting the countries to be included in the sample, not only the availability of data on independent variables of equation (1) but also the number of firms in each country limited the number of countries that could be included in the sample. As such, as we increased the number of firms to represent each country, the number of countries in the sample fell. Thus, sample B has fewer countries than sample A. Also, in selecting which firms should represent a country, we ranked all of a country’s firms in descending order of asset size and chose those firms that had data on product segment sales starting from the top. If firms did not have all the required information, we looked to lower-ranked firms to meet the

\(^{10}\) For certain countries where data was missing, the actual number of firms representing the country was less than 20 and 50 for samples A and B, respectively.

7. Economic Institutions, Business Diversification, and Economic Growth 367
condition that all firms selected should have product segment data. Also, note that our regression samples do not include Korea because of the incomparability of the Korean chaebol’s managerial diversification behavior, characterized by the extension of affiliates. This is the prevalent form of diversification in Korea, with product diversification prevailing in other countries.\footnote{See the next section for further explanations.}
### Table 1: Variables for Analysis and Definition

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Source</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDIV</td>
<td>Number of 4-digit industries in which firms operate</td>
<td>CA</td>
<td>1997</td>
</tr>
<tr>
<td>UDIV</td>
<td>Number of 2-digit industries in which firms operate</td>
<td>CA</td>
<td>1997</td>
</tr>
<tr>
<td>GR</td>
<td>((\text{GDP}<em>t-\text{GDP}</em>{t-1})/\text{GDP}_t), where GDP denotes real gross domestic product</td>
<td>IFS</td>
<td>1990-1997</td>
</tr>
<tr>
<td>PR</td>
<td>Simple mean of 5 ICRG indices</td>
<td>Barro et al. (1995)</td>
<td>1980s</td>
</tr>
<tr>
<td>AR</td>
<td>Index of shareholder rights</td>
<td>Porta et al. (1997)</td>
<td>-</td>
</tr>
<tr>
<td>LO</td>
<td>Legal origin of corporate law or commercial code</td>
<td>Porta et al. (1997)</td>
<td>-</td>
</tr>
<tr>
<td>GSR</td>
<td>((\text{M}_2 + \text{the market value of stock})/\text{nominal GNP})</td>
<td>IFS, FIBV</td>
<td>1990-1997</td>
</tr>
<tr>
<td>MC</td>
<td>((N_t-N_{t-1})/N_t), where N is the number of firms in manufacturing</td>
<td>ISY</td>
<td>1980-1997</td>
</tr>
<tr>
<td>MS</td>
<td>Natural log of real GDP</td>
<td>IFS</td>
<td>1990-1997</td>
</tr>
<tr>
<td>SF</td>
<td>Natural log of firms’ assets</td>
<td>CA</td>
<td>1997</td>
</tr>
<tr>
<td>RK</td>
<td>Standard deviation of each firm’s profits before taxes divided by sales</td>
<td>CA</td>
<td>1994-1997</td>
</tr>
<tr>
<td>DR</td>
<td>Debt-equity</td>
<td>CA</td>
<td>1994-1997</td>
</tr>
</tbody>
</table>

**Note:** CA: Company Analysis, PRIMARK  
IFS: International Financial Statistics, IMF  
ISY: International Statistical Yearbook, OECD  

7. Economic Institutions, Business Diversification, and Economic Growth 369
For data on property rights (PR), the International Country Risk Guide (ICRG) data from Barro and Sala-i-Martin (1995) was used. The index of shareholder rights (AR) and the legal origin of corporate law or the commercial code (LO) are employed from the data listed in Porta et al. (1997). Where necessary, data was also obtained from the International Statistical Yearbook, the International Financial Statistics and the International Federation of Stock Exchanges. Table 1 lists the dependent and independent variables used in the cross-country regression analysis.

### 2.2 Measurement of Variables

To measure the level of diversification, the number of industries in which a given corporation operates is used. That is, we count the number of different industries in which a corporation operates.\(^{12}\) Because diversified corporations operate in different business sectors, the number of sectors or industries in which they operate should reveal the level of diversification. According to the Standard Industrial Classification code (SIC), industries are classified into a 4-digit or 2-digit code. The number of different 2-digit codes tell us how many unrelated businesses a firm operates in, while the number of different 4-digit codes reveals how many related as well as unrelated businesses a firm operates.

\(^{12}\) Another possible way to measure the level of diversification is by using the entropy index; see Jacquemin and Berry (1979), pp.359-369. However, our data does not contain enough information on the share of each product segment in total shipments of firms so that other complex measures for diversification could not be utilized.

370 Korean Chaebol in Transition: Road Ahead and Agenda
in. Accordingly, the number of product lines in 4-digit industries and the number of product lines in 2-digit industries can be classified as the degree of total diversification (TDIV) and the degree of unrelated diversification (UDIV), respectively, both of which are used as dependent variables (DIV) in equation (1).

The variable for property rights (PR) are derived using the simple mean of 5 indices as measured by the International Country Risk Guide (ICRG) — expropriation risk, risk of contract repudiation by the government, rule of law, corruption in government, and the quality of the bureaucracy in the 1980s.\(^\text{13}\) The ICRG data on property rights has been obtained from Barro and Sala-i-Martin (1995).

The index of shareholder rights (AR) is adopted from Porta et al. (1997). This index was created by adding “1” when (1) the country allows shareholders to mail their proxy vote; (2) shareholders are not required to deposit their shares prior to the General Shareholders’ Meeting; (3) cumulative voting is allowed; (4) an oppressed minority mechanism is in place; (5) the minimum percentage of share capital that entitles a shareholder to call for an Extraordinary Shareholders’ Meeting is less than or equal to 10%.

The legal origin of corporate law or the commercial code (LO) also uses the data listed in Porta et al. If the legal system originates from common law made by judges and is subsequently incorporated into the legislature, we index this by “1”. However, if it is civil law, which originated not from


7. Economic Institutions, Business Diversification, and Economic Growth 371
common law but from Roman law, then we index this “0”. Therefore, this index is a dummy variable that takes on the value of either one or zero, and shows the effect of the corporate legal system or of the commercial code on diversification.

The level of financial development is generally measured using the Goldsmith ratio (GSR) and is usually expressed as the ratio of financial assets to nominal GNP. The Goldsmith ratio represents the accumulation of financial assets in a national economy. In our analysis, because we could not directly access data on financial assets, the Goldsmith ratio was constructed by the summation of M2 and the market value of stock divided by nominal GNP from 1990 to 1997.

The severity or weakness of market competition (MC) depends on the number of firms (N) that are active in a market. Using the Herfindahl index (H), we created an index reflecting the density of market competition.\(^{14}\) If \(s_i\) is the market share of firm \(i\) in a market, then the Herfindahl index can be expressed as \(H = \sum (s_i)^2\). Now let the change in the number of firms in a market from time \(t\) to time \(t-1\) be \(E\). So \(E = N_t - N_{t-1}\). We can also create another index, \(ES = E \times H\) and when all firms are the same size, \(ES\) represents the market share of all entrants because \(H = 1/N_t\). So \(E\) or \(ES\) represents the intensity of market competition. Even if the sizes of all firms are not identical, firm entry increases \(E\)

\(^{14}\) We think that one of the most important factors affecting whether or not a firm diversifies is potential competition. However, it is almost impossible to measure the intensity of potential competition in a given market, so we measure this variable using only the number of firms existing in a market.
and ES, and these indices reflect the intensity of competition in a market. In this study, we obtained the data on the number of firms from the International Statistical Yearbook and calculated the ES average (MC) from 1980 to the most recent year for which data was available.

With regards to the market size of the national economy (MS), we measured total demand using the natural log of the real Gross domestic Product (GDP)’s average between 1990 and 1997.

Reflecting the characteristics of individual firms, firm size (SF) is measured using the natural log of total assets in 1997. Business risk (RK), included to control for diversification influenced by a firm’s motive to reduce risk, is calculated by averaging the standard deviation of each firm’s profits before taxes, divided by sales in every year from 1994 to 1997. While the level of diversification is measured using 1997 data, we compute risk using data from 1994-1997 to remove the causality from diversification to risk that might exist.

2.3 Overview of Data on Diversification

As of 1997, the number of industries in which firms operated is listed alphabetically by country and presented in Table 2. It indicates the levels of diversification for the various countries, including Korea. The table shows that the level of diversification in Korea is the lowest. These statistics may be misleading, implying that Korean firms are the least diversified, running counter to the common belief that the *chaebol* are excessively diversified.
In fact, the statistics for Korea presented in Table 2 are not comparable to the statistics for other countries because Korea’s industrial organization is dominated by the chaebol, and thus taking into account only the diversification level of individual firms, as opposed to the chaebol group, underestimates the true degree of diversification. We need to distinguish two types of diversification: increasing the number of affiliates in a business group, i.e., the chaebol, and increasing the number of business lines in a firm. The latter is called product line diversification, which is the subject of our investigation in this analysis, while the former may be called “chaebol diversification,” which is the popular pattern of diversification in Korea and is not easily observable in other countries. Indeed, for 1997 the level of chaebol diversification among the largest 20 chaebol turns out to be 15.5, as shown in Table 5, compared to a mean value of 1.55 for product line diversification in Korea for Sample A in Table 2. For these reasons, we drop Korea from the sample when performing the regression analysis while including it in the data overview where necessary.

According to Table 2, Portugal and Spain, classified as high transaction cost countries by North (1990), are less diversified than the average, while the levels of diversification in England, the United States and Canada, all of which are categorized as low transaction cost countries, are higher than the average. These results are consistent with our expectations. We will investigate more systematically the relationship between transaction costs stemming from the
characteristics of the property rights system and diversification in the next section using the regression analysis. By doing so we test the new-institutionalist approach further.

At first sight, although differences between OECD and non-OECD countries are not distinctly noticeable, a closer look shows that the average number of industries in which firms in OECD countries operate is somewhat higher than for non-OECD countries. This is consistent with our expectations that the level of diversification would be higher for OECD countries where transaction costs, which are closely related to the stability of property rights, are lower than in non-OECD countries. However, when investigating countries individually, we observe varying levels.

<Table 2> Statistics on Total Diversification of Firms (TDIV) by Country

<table>
<thead>
<tr>
<th>Country</th>
<th>Sample A</th>
<th>Sample B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Variance</td>
</tr>
<tr>
<td>Australia*</td>
<td>6.90</td>
<td>4.32</td>
</tr>
<tr>
<td>Austria*</td>
<td>3.68</td>
<td>2.33</td>
</tr>
<tr>
<td>Belgium*</td>
<td>5.65</td>
<td>3.50</td>
</tr>
<tr>
<td>Bermuda</td>
<td>5.00</td>
<td>3.32</td>
</tr>
<tr>
<td>Canada*</td>
<td>4.13</td>
<td>2.39</td>
</tr>
<tr>
<td>China</td>
<td>2.75</td>
<td>1.98</td>
</tr>
<tr>
<td>Denmark*</td>
<td>7.45</td>
<td>4.58</td>
</tr>
<tr>
<td>Finland*</td>
<td>6.74</td>
<td>3.25</td>
</tr>
<tr>
<td>France*</td>
<td>5.68</td>
<td>3.74</td>
</tr>
</tbody>
</table>

7. Economic Institutions, Business Diversification, and Economic Growth 375
<table>
<thead>
<tr>
<th>Country</th>
<th>Sample A</th>
<th>Sample B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Variance</td>
</tr>
<tr>
<td>Germany</td>
<td>9.79</td>
<td>5.00</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>5.00</td>
<td>3.54</td>
</tr>
</tbody>
</table>

Total Diversification (TDIV)

<table>
<thead>
<tr>
<th>Country</th>
<th>Sample A</th>
<th>Sample B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>2.45</td>
<td>1.19</td>
</tr>
<tr>
<td>Ireland*</td>
<td>4.83</td>
<td>2.60</td>
</tr>
<tr>
<td>Italy*</td>
<td>6.83</td>
<td>4.31</td>
</tr>
<tr>
<td>Japan*</td>
<td>6.83</td>
<td>5.33</td>
</tr>
<tr>
<td>Korea*</td>
<td>1.55</td>
<td>1.05</td>
</tr>
<tr>
<td>Malaysia</td>
<td>10.21</td>
<td>4.13</td>
</tr>
<tr>
<td>Mexico*</td>
<td>4.87</td>
<td>3.18</td>
</tr>
<tr>
<td>Netherlands*</td>
<td>5.53</td>
<td>4.62</td>
</tr>
<tr>
<td>New Zealand*</td>
<td>3.76</td>
<td>2.44</td>
</tr>
<tr>
<td>Norway*</td>
<td>6.06</td>
<td>5.51</td>
</tr>
<tr>
<td>Portugal*</td>
<td>2.88</td>
<td>3.16</td>
</tr>
<tr>
<td>Scotland</td>
<td>4.94</td>
<td>3.32</td>
</tr>
<tr>
<td>Singapore</td>
<td>8.15</td>
<td>2.98</td>
</tr>
<tr>
<td>South Africa</td>
<td>5.63</td>
<td>5.73</td>
</tr>
<tr>
<td>Spain*</td>
<td>3.90</td>
<td>2.31</td>
</tr>
<tr>
<td>Sweden*</td>
<td>6.74</td>
<td>3.11</td>
</tr>
<tr>
<td>Switzerland*</td>
<td>5.68</td>
<td>4.70</td>
</tr>
<tr>
<td>Thailand</td>
<td>2.84</td>
<td>1.98</td>
</tr>
<tr>
<td>UK*</td>
<td>7.10</td>
<td>4.73</td>
</tr>
<tr>
<td>US*</td>
<td>6.88</td>
<td>4.47</td>
</tr>
<tr>
<td>All</td>
<td>5.50</td>
<td>3.49</td>
</tr>
<tr>
<td>OECD</td>
<td>5.61</td>
<td>3.63</td>
</tr>
<tr>
<td>Non-OECD</td>
<td>5.22</td>
<td>3.13</td>
</tr>
</tbody>
</table>

Note: * indicates OECD country.

3. Empirical Results and Interpretation

Table 3 shows the results for the regression analysis of diversification on the explanatory variables. Because heteroskedasticity could be important across countries, the standard
error of the coefficients in all models is based on White’s (1980) consistent covariance matrix.
### Table 3: The Effects of Economic Institutions on Diversification

#### Total Diversification (TDIV)

<table>
<thead>
<tr>
<th></th>
<th>Sample A</th>
<th>Sample B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>0.290***</td>
<td>0.279***</td>
</tr>
<tr>
<td></td>
<td>(3.109)</td>
<td>(2.913)</td>
</tr>
<tr>
<td>AR</td>
<td>-0.002</td>
<td>-0.012</td>
</tr>
<tr>
<td></td>
<td>(-0.011)</td>
<td>(-0.059)</td>
</tr>
<tr>
<td>LO</td>
<td>0.242</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.644)</td>
<td></td>
</tr>
<tr>
<td>GSR</td>
<td>0.007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.506)</td>
<td></td>
</tr>
<tr>
<td>MC</td>
<td>-0.035</td>
<td>-0.045</td>
</tr>
<tr>
<td></td>
<td>(-0.684)</td>
<td>(-0.893)</td>
</tr>
<tr>
<td>MS</td>
<td>-0.857***</td>
<td>-0.836***</td>
</tr>
<tr>
<td></td>
<td>(-4.139)</td>
<td>(-3.993)</td>
</tr>
<tr>
<td>SF</td>
<td>1.094***</td>
<td>1.087***</td>
</tr>
<tr>
<td></td>
<td>(6.668)</td>
<td>(6.648)</td>
</tr>
<tr>
<td>RK</td>
<td>1.314</td>
<td>0.872</td>
</tr>
<tr>
<td></td>
<td>(0.706)</td>
<td>(0.449)</td>
</tr>
<tr>
<td>Constant</td>
<td>12.360***</td>
<td>12.331***</td>
</tr>
<tr>
<td></td>
<td>(6.347)</td>
<td>(6.401)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.110</td>
<td>0.111</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>12.43***</td>
<td>12.52***</td>
</tr>
<tr>
<td></td>
<td>(5.48)</td>
<td>(5.56)</td>
</tr>
<tr>
<td>N. of Countries</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>N. of Firms</td>
<td>462</td>
<td>462</td>
</tr>
<tr>
<td></td>
<td>462</td>
<td>308</td>
</tr>
</tbody>
</table>

#### Unrelated Diversification (UDIV)

<table>
<thead>
<tr>
<th></th>
<th>Sample A</th>
<th>Sample B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>0.063</td>
<td>0.051</td>
</tr>
<tr>
<td></td>
<td>(0.955)</td>
<td>(0.775)</td>
</tr>
<tr>
<td>AR</td>
<td>0.097</td>
<td>0.035</td>
</tr>
<tr>
<td></td>
<td>(1.057)</td>
<td>(0.261)</td>
</tr>
<tr>
<td>LO</td>
<td>0.686***</td>
<td>0.933***</td>
</tr>
<tr>
<td></td>
<td>(2.815)</td>
<td>(2.553)</td>
</tr>
<tr>
<td>GSR</td>
<td>0.007</td>
<td>-0.0003</td>
</tr>
<tr>
<td></td>
<td>(0.873)</td>
<td>(-0.040)</td>
</tr>
<tr>
<td>MC</td>
<td>-0.033</td>
<td>-0.054</td>
</tr>
<tr>
<td></td>
<td>(-0.945)</td>
<td>(-1.597)</td>
</tr>
</tbody>
</table>

378 Korean Chaebol in Transition: Road Ahead and Agenda
For each sample set the regression model as described in Equation (1) is run by first omitting both the Goldsmith Ratio (GSR) and the level of market competition (MC) variables, and results are shown in the “A1” and “B1” columns of Table 3. The two variables are then included in the original regression and the results are presented in the “A2” and “B2” columns. The first regression is run, with respect to sample A, by omitting the two variables for which data was deficient, and allows for 26 countries to be included. If these two variables are included and the regression performed again, the sample can contain only 17 countries. Similarly, for sample B including 21 countries, the first regression is run with the omission of the two variables. The regression with these variables is performed again for only...
14 countries. For each regression set, two separate regressions are made, each omitting the other variable, to avoid technical problems that may be caused by the strong collinearity between the index of shareholder rights (AR) and the legal origin of company law (LO).

The estimation results show that the coefficient of property rights index is positive. This means that strong protection of property rights provides a good environment for firms to diversify when expanding business activity by reducing the transaction costs in the economy. This result confirms the importance of property rights systems as an absolute business constraint that firms cannot overcome endogenously. Firms in countries with higher transaction costs arising from insecure property rights systems are expected to be less diversified than firms in countries with more secure property rights systems and hence lower transaction costs.

Empirical results show that the legal origin of company law or the commercial code under the common law tradition has a positive effect on diversification, although strictly significant only with respect to unrelated diversification. This may imply that the level of diversification in countries such as the UK or the US, where the legal system is under the common law tradition, tends to be higher than in countries under civil law. However, the effect of shareholder rights not only varies in its direction depending on the sample but is also statistically insignificant. Further research may be required to clarify the empirical effect of the
corporate governance system on diversification behavior.

The effects of the prevailing financial condition, measured by the Goldsmith ratio, appear to be positive albeit insignificant for most cases in sample A. However, with regards to sample B, the results show that a deepening of financial development has a positive and significant effect on diversification. This implies that financial development in a country may enhance the accessibility of capital for diversification and expansion.

The effects of market competition on diversification are found to be negative but insignificant in most cases. However, in sample B the intensity of market competition shows a significant negative effect on unrelated diversification, implying that market competition drives firms toward less unrelated diversification. It can be argued that firms tend to adopt a business strategy emphasizing the development of their core competence, and hence engage in less unrelated diversification in order to improve competitiveness to fend off rivals in the market.

The coefficient of market size is found to be significantly negative, implying that firms are inclined to diversify when markets are of limited size. That is, as mentioned earlier, if a market is too small for the potential benefits of large scale production to be fully exploited, then the level of diversification will become relatively high. Adam Smith’s hypothesis that the division of labor is limited by the extent of the market is therefore empirically confirmed.

Concerning the effects of the size and risk of firms, the
results show that the size of firms has a positive effect on diversification, as Lemelin argues, while the direction of the risk coefficient varies depending on the sample. Therefore, we need to further research on whether the motives for reducing business risk through diversification are valid or not.

IV. Institutions and Economic Growth

We extend our empirical analysis to investigate the relationship between economic institutions and the performance of a national economy. Equation (2) is constructed to analyze the effects of institutional factors on economic performance. Economic performance is measured by the average growth rate of real GDP (GR) in the period 1990-1997. The explanatory variables include the property rights system (PR), the index of shareholder rights (AR), the legal origin of corporate law or commercial code (LO), the Goldsmith Ratio (GSR), market competition (MC), market size (MS), firm characteristics such as size (SF), and the debt-equity ratio (DR) describing a firm’s leverage. $\beta_i$ is a parameter to be estimated and $\mu$ the error term.

$$\text{GR} = \beta_0 + \beta_1 \text{PR} + \beta_2 \text{AR} + \beta_3 \text{LO} + \beta_4 \text{GSR} + \beta_5 \text{MC} + \beta_6 \text{MS} + \beta_7 \text{SF} + \beta_8 \text{DR} + \mu$$

A regression on performance is performed in a manner
similar to the preceding regression on diversification, and the empirical results are presented in Table 4.
### Table 4: The Effects of Economic Institutions on Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sample A</th>
<th>Sample B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model A1-1</td>
<td>2.448*** (28.602)</td>
<td>2.528*** (44.224)</td>
</tr>
<tr>
<td>Model A1-2</td>
<td>2.583*** (25.321)</td>
<td>2.623*** (38.263)</td>
</tr>
<tr>
<td>Model A2-1</td>
<td>2.546*** (25.690)</td>
<td>2.644*** (42.055)</td>
</tr>
<tr>
<td>Model A2-2</td>
<td>2.528*** (27.650)</td>
<td>2.718*** (38.263)</td>
</tr>
<tr>
<td>Model B1-1</td>
<td>1.123*** (6.636)</td>
<td>2.493*** (44.224)</td>
</tr>
<tr>
<td>Model B1-2</td>
<td>-0.020 (0.095)</td>
<td>2.528*** (28.602)</td>
</tr>
<tr>
<td>Model B2-1</td>
<td>1.615*** (3.122)</td>
<td>2.644*** (42.055)</td>
</tr>
<tr>
<td>Model B2-2</td>
<td>3.747*** (15.192)</td>
<td>2.718*** (38.263)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sample A</th>
<th>Sample B</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>2.448*** (28.602)</td>
<td>2.583*** (25.321)</td>
</tr>
<tr>
<td>AR</td>
<td>1.123*** (6.636)</td>
<td>-0.020 (0.095)</td>
</tr>
<tr>
<td>LO</td>
<td>3.780*** (9.980)</td>
<td>1.615*** (3.122)</td>
</tr>
<tr>
<td>GSR</td>
<td>0.034** (2.480)</td>
<td>0.014 (0.934)</td>
</tr>
<tr>
<td>MC</td>
<td>0.279*** (6.754)</td>
<td>0.229*** (5.641)</td>
</tr>
<tr>
<td>MS</td>
<td>-2.251*** (-11.138)</td>
<td>-3.663*** (-11.258)</td>
</tr>
<tr>
<td>SF</td>
<td>0.281*** (1.452)</td>
<td>1.665*** (7.679)</td>
</tr>
<tr>
<td>DR</td>
<td>0.0000 (0.183)</td>
<td>0.0000 (0.147)</td>
</tr>
<tr>
<td>Constant</td>
<td>-17.017*** (-8.488)</td>
<td>-18.750*** (-10.011)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.561</td>
<td>0.624</td>
</tr>
<tr>
<td>F</td>
<td>101.62*** 131.29***</td>
<td>78.42*** 83.15***</td>
</tr>
<tr>
<td>D.F.</td>
<td>388</td>
<td>388</td>
</tr>
<tr>
<td>N. of Countries</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>N. of Firms</td>
<td>394</td>
<td>394</td>
</tr>
</tbody>
</table>

Note: t-statistics in parentheses; Asterisks denote the level of significance. ***1%, **5%

Potentially high transaction costs stemming from insecure property rights protection, unless a society can design a system to compensate for the costs, will occur and thus retard economic development by impeding optimal resource allocation. Therefore, the establishment of a secure property rights system becomes a necessary prerequisite for high economic performance. Empirical results show that the effects of the property rights system on the growth of real
GDP is significantly positive, as was expected.

The degree of shareholder rights and the legal origin of corporate law or commercial code are added to the regression to see whether they have any effect on economic performance. Empirical results show that countries where the legal system originated from common law have better economic performances than countries with a legal system that did not originate under the common law tradition. English law is common law, made by judges and subsequently incorporated into the legislature. French, German and Scandinavian laws, in contrast, are part of the scholar and legislator-made civil law tradition, which dates back to Roman law. Clearly, our results imply that common law creates a better economic environment to increase economic performance than the scholar and legislator-made civil law. On the other hand, the effects of shareholder rights on economic performance, despite varying signs depending on model specification, can be said to have a significant positive effect on economic growth.

The Goldsmith ratio shows the degree of real sector support by the financial sector, and hence we expected a positive relationship with economic performance. Empirical results are consistent with our expectations.

Market competition stimulates economic activity in general, including production, marketing and R&D activity, and thus tends to increase productivity. This leads to an increase in economic performance and therefore we expected the coefficient for market competition to be positive. This
was confirmed by the results.

Real GDP used as a proxy for market size (MS) in the previous regression has been included here to capture convergence effects in economic growth, as argued by Easterly and Levine (1997). According to their research, the catch-up effect is a concave function of initial income measured by real GDP per capita. The coefficient for MS was expected to be negative if catch-up effects exist, and the empirical results are consistent with this expectation. On the other hand, the size of firms in the economy turns out to have a positive effect on economic growth.

What is important here is that by testing whether economic institutions and other factors influence aggregate economic performance, we find that countries with secure pro-perty rights systems, a common law tradition, stronger protection for shareholder rights, higher levels of financial development and higher market competition grow faster than others, and therefore we confirm our hypothesis that institutional environments strongly influence the sustainability of economic development.

V. Some Speculations on the Diversification Behavior of Korean Firms and Implications for Chaebol Diversification

From the empirical results, one can ponder as to whether
the level of diversification in Korean firms is excessive or not. Using the estimated coefficients, we project the level of diversification for Korean firms. Table 5 reports the realized and projected levels of diversification in Korean firms and differences between them.

Table 5 shows that the projected level of diversification in Korean firms turns out to be higher than the actual level. Although there are some differences in the projected level of diversification depending on model specification, it suggests that Korean firms are less diversified than their potential level, which was estimated by observing international business practices. However, this is not the whole story concerning Korean firm’s diversification behavior. Chaebol diversification through the expansion of the number of affiliates shows a vastly different pattern.

Indeed, when firm boundaries are defined from a corporate governance point of view, we can consider chaebol affiliates as divisions within a firm because they are under the control of major stockholders that usually include family members. Following this concept, Table 6 presents the level of diversification as measured by counting the number of affiliates listed on the stock market and care is taken to avoid double counting where a chaebol has more than one affiliate operating in a given industry. The level of diversification of the chaebol, as shown in Table 6, seems to be rather high, and is actually the highest when compared to other countries in our sample as seen in Table 2, where diversification is measured as the degree of product line diversification.
We will now investigate some factors that could explain the discrepancy in *chaebol* and product line diversification. In Korea, it seems to be the case that there has been a strong bias in the incentive structure towards *chaebol* diversification rather than product line diversification. One cause may be Korea’s particular property rights system, which has been characterized as relatively insecure. It is reasonable to assume that large firms can survive only if property rights as well as many complicated contractual arrangements are fully honored. If this cannot be done through the rule of law, then arbitrary protection from some external authority may also serve the same purpose. The most obvious alternative seems to be government protection, which can override both formal and informal property rights protection. The Korean government reserved for itself the power to favor an owner-manager of a corporation and to selectively provide the necessary resources for the rapid

---

388 *Korean Chaebol in Transition: Road Ahead and Agenda*
growth of that corporation. In this environment, the *chaebol* found opportunities to expand in size even without secure property rights protection through the rule of law.

Accordingly, the government has not only promoted large firms but has also been the prime source of uncertainty over property rights protection as far as the owner-managers of big corporations are concerned. Once the relationship between businessmen and the government becomes problematic, no guarantees for personal fortunes can realistically exist. Therefore, to avoid the actual nullification of property rights, the strategy chosen was an aggressive expansion to help reduce the probability of failure, whether through non-market factors or even through market competition. This is because the government is less likely to be willing to accept the economic impact caused by the failure of a large corporation, and will intervene to maintain its existence even though it may actually be in an insolvent state. Similarly, efforts to diversify into the banking sector and mass media can be considered as strategies to reduce the probability of any such failure. In fact, the “too-big-to-fail” strategy turned out to be a rather good survival strategy for the *chaebol* to adopt. In this context, the industrial policy factor that prevents the failure of a firm that has been selected to enter a priority sector must have constituted an important incentive for *chaebol* diversification through affiliate expansion.

In addition, there also exists an important practice in the financial sector, known as cross-debt guarantees, which de-
### Table 6: Diversification in Chaebol Groups and the Ratio of Listed Firms to Total Affiliates

<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Total Diversification</th>
<th>Unrelated Diversification</th>
<th>Listed (A)</th>
<th>Affiliates (B)</th>
<th>Ratio (A/B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hyundai</td>
<td>1</td>
<td>43</td>
<td>32</td>
<td>21</td>
<td>57</td>
<td>37%</td>
</tr>
<tr>
<td>Samsung</td>
<td>2</td>
<td>41</td>
<td>27</td>
<td>13</td>
<td>80</td>
<td>16%</td>
</tr>
<tr>
<td>LG</td>
<td>3</td>
<td>23</td>
<td>16</td>
<td>11</td>
<td>49</td>
<td>22%</td>
</tr>
<tr>
<td>Daewoo</td>
<td>4</td>
<td>23</td>
<td>17</td>
<td>9</td>
<td>30</td>
<td>30%</td>
</tr>
<tr>
<td>SK</td>
<td>5</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>46</td>
<td>13%</td>
</tr>
<tr>
<td>Ssangyong</td>
<td>6</td>
<td>21</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>40%</td>
</tr>
<tr>
<td>Hanjin</td>
<td>7</td>
<td>21</td>
<td>16</td>
<td>9</td>
<td>24</td>
<td>38%</td>
</tr>
<tr>
<td>Kia</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>28</td>
<td>14%</td>
</tr>
<tr>
<td>Hanwha</td>
<td>9</td>
<td>21</td>
<td>16</td>
<td>7</td>
<td>31</td>
<td>23%</td>
</tr>
<tr>
<td>Lotte</td>
<td>10</td>
<td>9</td>
<td>6</td>
<td>4</td>
<td>30</td>
<td>13%</td>
</tr>
<tr>
<td>Kumbo</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>3</td>
<td>26</td>
<td>12%</td>
</tr>
<tr>
<td>Halla</td>
<td>12</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>18</td>
<td>22%</td>
</tr>
<tr>
<td>Dong Ah</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>19</td>
<td>21%</td>
</tr>
<tr>
<td>Doo San</td>
<td>14</td>
<td>19</td>
<td>14</td>
<td>8</td>
<td>25</td>
<td>32%</td>
</tr>
<tr>
<td>Daelim</td>
<td>15</td>
<td>9</td>
<td>9</td>
<td>5</td>
<td>21</td>
<td>24%</td>
</tr>
<tr>
<td>Hansol</td>
<td>16</td>
<td>11</td>
<td>10</td>
<td>6</td>
<td>23</td>
<td>26%</td>
</tr>
<tr>
<td>Hyosung</td>
<td>17</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>18</td>
<td>11%</td>
</tr>
<tr>
<td>Dong Kuk Steel Mill</td>
<td>18</td>
<td>10</td>
<td>7</td>
<td>5</td>
<td>17</td>
<td>29%</td>
</tr>
<tr>
<td>Jinro</td>
<td>19</td>
<td>9</td>
<td>9</td>
<td>4</td>
<td>24</td>
<td>17%</td>
</tr>
<tr>
<td>Kolon</td>
<td>20</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>24</td>
<td>17%</td>
</tr>
<tr>
<td>Kohap</td>
<td>21</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>13</td>
<td>15%</td>
</tr>
<tr>
<td>Dongbu</td>
<td>22</td>
<td>18</td>
<td>14</td>
<td>6</td>
<td>34</td>
<td>18%</td>
</tr>
<tr>
<td>Haitai</td>
<td>23</td>
<td>7</td>
<td>7</td>
<td>3</td>
<td>15</td>
<td>20%</td>
</tr>
<tr>
<td>Hanil</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Keo Pyung</td>
<td>25</td>
<td>9</td>
<td>9</td>
<td>5</td>
<td>22</td>
<td>23%</td>
</tr>
<tr>
<td>Miwon (Daesang)</td>
<td>26</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>25</td>
<td>16%</td>
</tr>
<tr>
<td>Shinho</td>
<td>27</td>
<td>9</td>
<td>9</td>
<td>6</td>
<td>25</td>
<td>24%</td>
</tr>
<tr>
<td>Kang Won Ind.</td>
<td>28</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>12</td>
<td>17%</td>
</tr>
<tr>
<td>Saehan</td>
<td>29</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>11</td>
<td>18%</td>
</tr>
<tr>
<td>Dong Yang</td>
<td>30</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>24</td>
<td>17%</td>
</tr>
<tr>
<td>Cheil Jedang</td>
<td>31</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>Shinsegae</td>
<td>32</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>13%</td>
</tr>
<tr>
<td>Oriental Chemical ind.</td>
<td>33</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>12</td>
<td>25%</td>
</tr>
<tr>
<td>Woosung</td>
<td>34</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>Byuck San</td>
<td>35</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>11</td>
<td>36%</td>
</tr>
<tr>
<td>Shin Won</td>
<td>36</td>
<td>15</td>
<td>9</td>
<td>4</td>
<td>10</td>
<td>40%</td>
</tr>
<tr>
<td>Tongil</td>
<td>37</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>11</td>
<td>45%</td>
</tr>
<tr>
<td>Taihan Electric Wire</td>
<td>38</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>25%</td>
</tr>
</tbody>
</table>

390 *Korean Chaebol in Transition: Road Ahead and Agenda*
<table>
<thead>
<tr>
<th>Name</th>
<th>Rank</th>
<th>Total Diversification</th>
<th>Unrelated Diversification</th>
<th>Listed (A)</th>
<th>Affiliates (B)</th>
<th>Ratio (A/B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongkook</td>
<td>39</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>22%</td>
</tr>
<tr>
<td>Chong Gu</td>
<td>40</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Keumkang</td>
<td>41</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>Sam Yang</td>
<td>42</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Hankook Tire Mfg.</td>
<td>43</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Pum Yang</td>
<td>44</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>14%</td>
</tr>
<tr>
<td>Tae Kwang ind.</td>
<td>45</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>40%</td>
</tr>
<tr>
<td>Dainong</td>
<td>46</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>67%</td>
</tr>
<tr>
<td>Yong Poong</td>
<td>47</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>14</td>
<td>21%</td>
</tr>
<tr>
<td>Kukdong</td>
<td>48</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>25%</td>
</tr>
<tr>
<td>Sungshin Cement Mfg.</td>
<td>49</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>25%</td>
</tr>
<tr>
<td>Sam Whan</td>
<td>50</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>7.0</strong></td>
<td><strong>31.8</strong></td>
<td><strong>22.6%</strong></td>
</tr>
</tbody>
</table>

Note: The top 30 chaebol are ranked according to the Korea Fair Trade Commission and the rest according to a database from Korea Investors Services, Inc.

determines the nature of the diversification behavior. When making loans, all financial institutions request firms to provide collateral in the form of tangible fixed assets, such as land and buildings, and/or third party guarantees. This financial practice has induced the chaebol into creating new affiliates as a means of facilitating borrowing. The new affiliates are practically governed by the owner-managers of a given chaebol, so that they can be considered as de facto functional divisions of a chaebol. However, from a commercial law perspective, they are not chaebol divisions but de jure independent firms because, legally, the chaebol or holding company systems were not allowed until 1998. Therefore, in effect, financial institutions have allowed major affiliates to guarantee the debt of other affiliates from the

7. Economic Institutions, Business Diversification, and Economic Growth 391
same chaebol as third parties. Even if this practice is against what is considered sound banking practices, because those affiliates as a group should be treated as an economically identical entity, financial sector authorities have also tacitly allowed this practice. Consequently, diversification by increasing the number of affiliates turns out to be the much better strategy for business expansion than product line diversification.

Since the advent of the economic crisis of 1997, the Korean economy has been undergoing restructuring in many fields. In particular, the structure of the chaebol has been changing. Some business groups that have felt the necessity to restructure their business organization have merged their affiliates into one firm, thereby transforming themselves into an M-type conglomerate.\(^{15}\) The strong but non-transparent relationship among affiliates has also been weakened through the strengthening of corporate governance structures, the policy to prohibit cross-debt guarantees among affiliates, and other institutional reforms.

With increased globalization, the future path of Korea’s economic transformation will vary. Generally speaking, we expect an increase in specialization to accompany increases in the size of the market and degree of competition. In general, overall empirical evidence together with future prospects for change in the economic environment seem to

\(^{15}\) M-type firms refer to multidivisional firms that remove general office executives from partisan involvement in the functional parts and assign operating responsibilities to each business division. See Williamson (1985) for further details.

392 *Korean Chaebol in Transition: Road Ahead and Agenda*
suggest that affiliates will grow more independent than they are now and that the number of *chaebol* that amalgamate their affiliates, forming a multidivisional firm, will increase. This trend may even be expedited by various government policies intended to increase the transparency of the *chaebol* governance structure, such as the one banning cross-guarantees among *chaebol* affiliates and the one allowing the formation of holding company systems from 1998.16)

### VI. Concluding Remarks

This paper has empirically investigated the business diversification behavior of firms and the effects of economic institutions on economic growth through a cross-country analysis. The cross-country analysis has confirmed that, in general, a secure property rights system encourages the formation of large firms with more diversification while increased market competition tends to discourage unrelated diversification, though the latter effect is a little weak. On the other hand, both turn out to make strong positive contributions to economic growth. Some aspects of corporate governance systems are seen to be important determinants of diversification and economic performance. The legal commercial system under the Roman law tradition tends to discourage diversification while that derived from the

16) Currently the requirements for being eligible to be a holding company are rather stringent but this is expected to be relaxed in the near future.

*7. Economic Institutions, Business Diversification, and Economic Growth 393*
common law tradition encourages more diversification. Moreover, the common law tradition turns out to contribute positively to economic development, contrary to the Roman law case. However, it seems to be the case that strong shareholder rights do not have any discernable strong effects on diversification behavior but have very strong positive effect on economic growth.

In general, our empirical results may be interpreted to support the argument of Jwa (1999), who stresses the importance of secure property rights and the reform of corporate governance and market competition, including market opening, in formulating chaebol policy to discipline their behavior, which includes diversification. However, one of the most peculiar aspects of Korea’s industrial policy is that it mainly concentrates on attempting to curb the chaebol’s diversification behavior without probing into the reasons as to why the chaebol tend to be highly diversified in the first place. Korea’s chaebol policy has been of the symptom regulation type. Obviously, before any logically and empirically sound policy prescription can be made, it is imperative to understand why the chaebol have become so highly diversified. Unless these aspects are fully understood, one cannot determine whether or not the degree of diversification is excessive, and further, it will be difficult to devise an appropriate policy to alleviate the degree of diversification if it is indeed excessive.

A capitalistic free market economy can be described as an economic system in which the market order evolves
endogenously for efficient resource allocation under a given set of economic institutions. The efficiency of the market economy as well as the diversification behavior of business firms fundamentally depends on the characteristics of economic institutions, such as property rights, which define a society’s rules of the game, thereby setting proper incentive structures. Therefore, as a long-term goal, the government should focus on establishing economic institutions, not on directly interfering with the conduct of firms, particularly chaebol diversification.
References


Jwa, Sung Hee, “Globalization and New Industrial Organization: Implications for Structural

396 *Korean Chaebol in Transition: Road Ahead and Agenda*


8. Institutional Changes and Fundamental Transformation of the *Chaebol* System

Dong-Won Sohn and Jin-Yeong Kim
I. Introduction

It is common knowledge that Korea has developed distinctive economic characteristics that could give rise to a model of economic organization different from the Western one (Hamilton and Biggart, 1988). The chaebol, a conglomerate of diversified firms, is regarded as the main element of Korea’s unique industrial structure.

Recently, the Korean economy has faced two strong forces demanding reform; the first comes from the country’s growing integration with the world economy (globalization or global convergence), and the second from the IMF bailout program implemented at the end of 1997. First, the development of globalization would appear to be moving Korea’s economic organizations toward borderless competition and increasing dependence on firms in other countries. Globalization has led to the question of whether the Korean economy can succeed by maintaining the existing institutions or if it should reform them. Thus, globalization provides the Korean system with a choice between remaining unique or reforming. Reforms here imply shifting toward the adoption of “globally advanced” behavior and/or institutions for inducing such behavior.

Although less fundamental than the force of globalization, the financial fiasco from the end of 1997 in Korea that culminated with the imposition of the IMF bailout program has forced the Korean economy to break ties with past practices. The bailout program made it easier to criticize...
Korea’s unique structural characteristics, and so-called “system restructuring” became a persuasive expression. The program made the western model a possible choice for the Korean economy, demanding the adoption of “global standards.”

This paper attempts to address the possible future of the Korean economic system currently under reform pressure. We assume that the Korean economy’s future is highly dependent on the balance of two forces, one from global convergence pressure, and the other from past routines that are intrinsically path-dependent and resistant to change. While the former is the force driving the system to implement reforms toward global convergence, the latter is the countervailing force. The coexistence of two forces implies complexities of the transition process in the Korean economy.

This paper focuses on chaebol reform. Regarded positively as the driving force behind past economic development or negatively as the principal cause of the current financial crisis, the chaebol have been placed at the center of Korean economic reforms. We particularly contend that chaebol reform has to be in line with institutional changes, following the main theme of neo-institutionalism. Institutional theorists have argued that firms’ actions are rationally derived under the constraint of their institutions (North, 1990; Granovetter, 1985; Scott, 1995). Institutions, as rules of the game for economic actors, shape the framework of firms’ choice of actions (North, 1990;
DiMaggio and Powell, 1991). Firms’ actions under given institutions are conceived as a rational choice to deal with the constraints provided by the institutions. However, rationality itself in a society can be defined differently according to the institutional context (Fligstein, 1990). There are certainly varieties of capitalism that have their own meaning of rationality (Hodgson, 1998). Actions, structures, and the performance of economic organizations in a society are shaped by the influence of cultural and institutional contexts (Scott, 1995).

For this reason, the evaluation of Korean chaebol would require the investigation of their institutional context that influenced their development and success in the past and will determine their future direction (Jwa, 1999). From the institutional perspective, it is not recommended to initiate changes in firm behavior alone; rather, it is more appropriate to promote simultaneous changes in institutions and firm behavior because both firms and institutions coevolve (Aoki and Fujiwara, 1996). However, it should be noted that institutions are intrinsically path-dependent, which can function as a constraint upon innovative change (Hodgson, 1998; North, 1990). As institutions in a society evolve, they tend to form inter-complementarity, which reinforces their legitimacy and efficiency (Aoki and Fujiwara, 1996). The path-dependence of institutions would be strengthened by their inter-complementarity. Thus, the level of complementarity among institutions may act as a proxy, if not a true indicator, of the degree of forces resistant to
change. This partially explains the difficulties in the transition of economic systems.

Considering the diverse range of economic institutions, it was necessary to confine our analysis to a restricted range of formal and informal institutions. Of the formal institutions, the financial and labor markets, government regulations, and legal aspects are particularly emphasized here. Informal institutions are investigated through the business system framework suggested by Whitley (1992). We selected this framework because we agree with Whitley’s argument that business systems can vary in terms of three characteristics: 1) the nature of firms as economic actors; 2) the formation of market relations; and 3) the logic that governs managerial control and coordination systems within a firm. We attempted to connect these three characteristics with the chaebol’s past actions in order to identify their institutional roots during pre-industrial and industrialization processes.

Describing current institutional reforms, we will evaluate the inertial force of Korean institutions. For this, we will use the term “absorptive capacity,” meaning the ability to incorporate external forces. The absorptive capacity is assumed to play an important role in determining the direction of chaebol reform. This paper will focus on organizational restructuring in discussing the desirable direction of chaebol reform.

II. Korean Chaebol’s Behavior,

8. Institutional Changes and Fundamental Transformation of the Chaebol System 401
Structure, and Norms: Past Trends and Institutions

In this section we will describe the Korean chaebol’s past trends, including behavior, structure, and norms, that are still in effect. How past trends have been shaped is explained with reference to past and existing institutions. First of all, the general description of a Korean chaebol is as follows: a chaebol is a business conglomerate composed of multiple firms and vertically integrated through hierarchical relationships and diversified across a variety of industries. Each firm in a chaebol is enmeshed in long-term alliances with firms in the same chaebol. Firms are strongly networked in a group, and have a high level of internal transactions to share risk. Although characterized by a network of firms, the chaebol’s general structure is that of a clan with a patriarchic form of governance (Powell, 1990; Boisot and Child, 1996). Because of the clan form of networks, the Korean economy exhibits a relatively low level of overall market types of organization (Hamilton and Biggart, 1988). Focusing on these characteristics, chaebol’s past trends are described using 3 factors that were originally suggested by Whitley (1992).

1) The well-known market-hierarchy debate developed by Williamson (1975) has been a popular tool for analyzing economic characteristics. However, it has been recently argued that the debate is not applicable to the analysis of Asian economies, because they (particularly Japan, China, and Korea) have developed forms that are not quite “market” but not quite “hierarchic” either.

402 Korean Chaebol in Transition: Road Ahead and Agenda
1. The Nature of *Chaebol* as Economic Actors

Here we investigate the degree of autonomy and independence of *chaebol* firms, in other words, how much they independently manage their activities and resources. This is also closely related to the development of property rights and the relations between owners and controllers of resources. Firms in a *chaebol* generally have strong control of economic resources (Jwa, 1999; Sohn, 1997). In other words, most markets are strongly dominated by *chaebol* firms, indicating that the Korean economy is dominated by leading firms. In addition to these firms controlling markets, they can influence the choice of other firms’ actions. Most innovative practices are imitated by smaller firms in each industry, and thus the bandwagon effect arises to shape industrial norms.

With respect to relationships between owners and managers in the *chaebol*, the distinction between them is quite blurred, much similar to Chinese family businesses and Italian industrial district firms (Whitley, 1992). *Chaebol* owners exert strong central control over their businesses and rely heavily on family members to fill top management posts. The owners’ authority and power also tend to be handed down to their sons instead of skilled managers, regardless of the sons’ expertise. The giving of inheritance to sons is associated with Confucianism, which has strongly influenced Korean society. A high percentage of top managers are also related to the owners, although that percentage has been
decreasing recently (Jwa, 1999).

The *chaebol* are also characterized by strong mutual dependence between firms and banks (e.g., easy financing). This close relationship means that *chaebol* firms are able to avoid having to internalize risk management. In other words, firms are able to share risks with financial institutions, particularly banks controlled by the government. Also, once major financial institutions are selected, they are not easily changed. The close relationship between firms and banks played an important role in shaping the debt-based capital structure of firms, which is a major target of reforms.

### 2. Market Relations between Firms

With respect to market relations, it is particularly worthwhile to note that there is a low level of reciprocal obligations and long-term commitments between large firms and their subcontractors. This is partly because coordinating businesses and inter-market groups does not function well in Korea, unlike in some advanced countries (Fukuyama, 1995). The banks, a type of intermediary organizations, were government-controlled and operate according to government policies rather than being controlled by private interests. The trading companies are also *chaebol* subsidiaries, and thus they are controlled by the *chaebol* and have little autonomy. For this reason, relations between firms in a given market are largely transient and carry low commitments. On the other hand, market relations between firms are strongly dependent...
on personal ties between individuals. Personal networking exerts power in forming relationships between firms, which may be a factor preventing the efficiency of market transactions.

The slow development of market organizations in Korea could be the outcome of traditional patterns of political and economic centralization (Whitley, 1992). The establishment of centralization mainly by the government does allow for much independent private wealth accumulation and control over economic activity, and thus stifles the development of firms that could work out their own pattern of cooperation and competition (Jwa, 1999). The control over the autonomy of economic actors diffuses commitments between exchange partners, and results in the limited development of formal rules. The development of long-term commitments between firms generally depends on relative stability and assurances that such commitments will be reciprocated in the future. However, when a low level of commitment and formal rules exist, as in the chaebol’s case, short-term advantages are likely to be pursued at the expense of long-term gains. Furthermore, because of the limited establishment of rule formation, only relationships based on personal ties were appreciated.

3. Authoritative Coordination and Control Systems

Personnel control and employment systems were also influenced by Korean institutional history, which has a long tradition of dependence upon the central power and reliance
on personal connections to leading factions. The low level of commitment to employees by firms may be a product of the combination of traditional conceptions of authority, the limited extent of village cohesion, and autonomy and integration into the political system (Whitley, 1992). Traditionally in Korean villages, there exists a lack of reciprocity between leader and members, partly because of the assumption of omnipotent authority by the leader (Sohn and Wall, 1993). This is related to the dominant pattern of patriarchic authority in Korean families that ascribes omnipotence and omnicompetence to the father, who is reluctant to admit dependence on other family members (Whitley, 1992).

Consistent with the above explanations, the delegation of responsibilities to middle managers in firms is very limited and authority within firms is of a personal nature and less governed by formal rules. Particularly, personal ties played a substantial role in obtaining power within an organization. It is commonly thought that “whom to know” was regarded as a more valuable asset than “what to know” in the Korean context, although the latter is now becoming more valuable. Employer’s commitment to employee expertise and workers’ autonomy were correspondingly low. The dominant management style in the chaebol was directive and authoritarian. This is partly because of the low level of trust in Korean society (Fukuyama, 1995). The delegation of power within businesses obviously requires trust and the ability to ensure commitment to the firm. However, a low level of trust between people with non-personal relationships inhibits the
delegation of control and power. Trust is only granted to those with strong personal ties to the owners, so that collective commitments to the firm cannot be assumed to be high (Brandt, 1987).

We can summarize the distinctive characteristics of the Korean chaebol’s past trends as follows. 1) High degree of owners’ control over management (family ownership and direct control of owners); 2) hierarchical integration of diverse firms; 3) dominance of markets by chaebol and risk management through unrelated diversification, with high dependence on the government and financial agencies (related to debt-based capital structure); 4) low level of long-term and reciprocal obligations between firms (low trust and cooperation among firms); 5) low development of intermediary organizations; 6) low formalization of procedures (high dependence of market relations upon personal ties); 7) low employer-employee commitment; 8) little delegation to work groups (little specialization and autonomy of employees); 9) directive control of management (high centralization of coordination and control).

Why and how have the chaebol developed these trends? In principle, firms’ actions are rationally derived under the constraint of their institutions (North, 1990; Granovetter, 1985; Scott, 1995). Institutions, as the rules of the game for economic actors to pursue their goals, shape the framework of firms’ choice of actions (North, 1990). In line with this argument, we contend that the development of the chaebol’s
past behavior (including their formation) was strongly influenced by both pre-industrial institutions and the industrialization process. The institutional influence of pre-industrial institutions and industrialization are described in Tables 1 and 2. The factors influencing the formation of distinctive characteristics were selected following Whitley (1992), focusing on the role of informal institutions.

<Table 1> Institutional Influences on the Development of the Korean Chaebol: The Nature of the Firm and Market Organization

<table>
<thead>
<tr>
<th>Distinctive characteristics</th>
<th>Pre-industrial institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong owner control</td>
<td>X</td>
</tr>
<tr>
<td>Hierarchical integration of diverse activities</td>
<td>X</td>
</tr>
<tr>
<td>Risk management by vertical integration and diversification</td>
<td>X</td>
</tr>
<tr>
<td>Low inter-firm mutual dependence and obligations</td>
<td>X</td>
</tr>
<tr>
<td>Political centralization</td>
<td>X</td>
</tr>
<tr>
<td>High level of personal and factional conflict at center</td>
<td>X</td>
</tr>
<tr>
<td>Low integration of vertical loyalties</td>
<td>X</td>
</tr>
<tr>
<td>Strong consciousness of rank status</td>
<td>X</td>
</tr>
<tr>
<td>Low rule formalization</td>
<td>X</td>
</tr>
<tr>
<td>Merchant insecurity</td>
<td>X</td>
</tr>
<tr>
<td>Merit based on moral worth</td>
<td>X</td>
</tr>
<tr>
<td>Patriarchic authority</td>
<td>X</td>
</tr>
<tr>
<td>Authoritarian colonial regime</td>
<td>X</td>
</tr>
<tr>
<td>Militaristic, dominant state</td>
<td>X</td>
</tr>
<tr>
<td>State risk-sharing and support for diversified large firms</td>
<td>X</td>
</tr>
</tbody>
</table>
Weak labor movement | X | X
---|---|---
Wartime disruption and rapid urbanization | X | | X

Source: adapted from Whitley (1992)
### Table 2: Institutional Influences on the Development of the Korean Chaebol: Employment Practices and Authority

<table>
<thead>
<tr>
<th>Distinctive characteristics</th>
<th>Pre-industrial institutions</th>
<th>Industrialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low formalization of procedures and authority</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Low employer-commitment</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Low delegation to middle Management and work groups</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Directive management role</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

- **Political centralization**: X
- **Personal and factional conflicts**: X
- **Low integration of vertical loyalties**: X
- **Low rule formalization**: X
- **Merchant insecurity**: X
- **Merit based on moral worth**: X
- **Patriarchic authority**: X
- **Authoritarian colonial regime**: X
- **Militaristic, dominant state**: X
- **Weak labor movement**: X
- **Wartime disruption and rapid urbanization**: X

Source: adapted from Whitley (1992)

Note that economic reforms are currently in process. The Korean economy has implemented diverse reforms since the IMF bailout program at the end of 1997. Major reforms are focused on institutional changes that can provide economic organizations with a different incentive structure, eventually expecting to restore competitive advantages. Most of Korea’s distinctive characteristics, as mentioned above, are under
pressure to change under the reforms. The reforms seem to be executed for the purpose of putting an end to Korean uniqueness, instead of reinforcing it. Some examples clearly show this. The tax reform seeks to, among other things, reduce or limit chaebol owners’ practice of giving away their inheritance to family members; the capital structure reform seeks to prevent debt-based capital management; the corporate governance reform seeks to obtain more transparency; and M&As and business deals aim to limit unrelated diversification.

III. Chaebol’s Absorptive Capacity for Global Convergence

Firms’ behavior under given institutions are conceived as a rational choice to deal with the constraints provided by the institutions (North, 1990). However, rationality itself in a society can be defined differently according to the institutional context to which it belongs (Fligstein, 1990). From an institutional perspective, it is not recommended to initiate changes in firms’ behavior alone; rather it is more appropriate to promote simultaneous changes in institutions and firms’ behavior because both of them coevolve (Aoki and Fujiwara, 1996). However, it should be noted that institutions are path-dependent, which can function as a constraint to innovative change (Hodgson, 1998; North, 1990). As institutions in a society evolve, they tend to form
inter-com-plementarity, reinforcing their legitimacy and efficiency (Aoki and Fujiwara, 1996). The path-dependence of institutions would be strengthened by this complementarity. Thus, the level of complementarity among institutions could be a good indicator of the strength of forces resistant to institutional change.

Institutions in a society are intrinsically path-dependent, and thus are unlikely to stray away from their historical and cultural paths. However, globalization generates pressure to end this dependence. How much demand from globalization (global convergence) Korean economic institutions can absorb is an important factor in determining their future. We use the term “absorptive capacity” as the degree of possible incorporation of external forces. More specifically, a high absorptive capacity implies that a society’s economic system can conform to global convergence under path-dependent institutions. Applying this logic to chaebol reform, their possible direction is likely to be dependent on the absorptive capacity of Korean economic institutions. What could be the chaebol’s future direction?

Broadly speaking, the chaebol’s future will be somewhere between the two extremes, i.e., total global convergence and staying with past routines. As mentioned above, “somewhere” is determined by the absorptive capacity of existing systems. Then, a key question to be answered is what determines the absorptive capacity? As a determinant of Korean chaebol’s absorptive capacity, we will emphasize the interconnection of institutions in the Korean economic

412 Korean Chaebol in Transition : Road Ahead and Agenda
system. We termed the inter-connection of institutions as complementarity, following Aoki and Fujiwara (1996).

If institutional factors in a society develop high coherence and inter-complementarity, they are not easily changeable and are more resistant to external pressure (Aoki and Fujiwara, 1996). More coherent and complementary institutions would show a higher path-dependent tendency, which again reinforces each institution’s degree of inter-dependence. We can infer from this that institutions’ higher absorptive capacity can be derived from a low level of complementarity.

Table 3 shows a general picture of the inter-connection between institutions in Korea. The cohesion of institutional elements would imply that the uniqueness of the Korean economy could be a result of the combination of components. For example, high degrees of managerial control on the part of owners functions cohesively with the importance of personal ties in markets and organizations, centralization, and personal authority. Another combination of institutional elements, typified in the *chaebol*, brings together the low

---

2) In addition to the inter-connection of institutions, *chaebol* firms themselves can influence the level of absorptive capacity. For instance, when firms increase their learning experience, their absorptive capacity may be enhanced. Firms having more exposure to global institutions could cumulate more learning experience and as a result would develop more ability to absorb. Firms with strong cognitive intentions to break past routines are likely to show a high degree of efforts to absorb, and the multiplication of these actors in a society will result in a higher absorptive capacity. Although the role of firms (as actors) is not negligible, in this paper we confined our contention to the role of institutions. A more comprehensive study in the future is required to shed more light on this topic.

8. Institutional Changes and Fundamental Transformation of the Chaebol System 413
Korean Chaebol in Transition: Road Ahead and Agenda
of firm inter-dependence and weakly coordinated intermediaries with low mutual dependence between employers and employees. This finding is also consistent with the fact that low levels of employer commitment to employees and short-term investment in skill improvement programs are likely to develop in economies where market organization is weak and formal rules underdeveloped (Whitley, 1992).

We may reason from this that the Korean economy’s unique characteristics are not easily susceptible to change because of the strong cohesion among Korean economic institutions. It also implies that the strong cohesive ness among institutions can hinder successful transferability of Korean managerial techniques to other institutional contexts.

8. Institutional Changes and Fundamental Transformation of the Chaebol System 415
IV. Restructuring and Business Scope
Reform: An Evaluation of the Shift
toward the Network Form

In this section, we attempt to find a suitable restructuring process for the chaebol. Management scholars, mainly Western theorists, now argue that focusing on core competencies is an inevitable way of dealing with the worldwide competitive environment. Under the same rationale, the chaebol, as diversified conglomerates, are recommended to streamline their far-flung businesses and focus their resources into a few selected industries. In other words, streamlining by reducing business scope is regarded as a main step towards restructuring the chaebol. The argument for restructuring is simply that breaking up the diverse mammoth chaebol could reduce their inefficiencies and promote greater entrepreneurship and flexibility. Furthermore, because the chaebol were forced by the government to reduce their debt-equity ratio to 200%, reducing business scope by selling off assets seems to help them achieve this short-term objective. Now, the chaebol are proceeding according to the myth that diversified organizations like the chaebol should reduce their scope, regardless of cultural and institutional contexts. In other words, the strategy of focusing on core competencies is highly recommended.

Is the core competency strategy really good for the
chaebol? Based on the institutional theory this paper is built on, we need to consider the fit between firms’ strategy and institutions. We are told that when a firm has a high “fit” with its institutional context, it could result in efficient outcomes. We will look at the following institutional contexts to investigate the issue: the product, capital and labor markets, regulatory systems, and mechanisms for enforcing contracts in line with the suggestions of Khanna and Palepu (1997, 1999). Unlike advanced economies, Korea has suffered from weak institutions, as seen in Table 4. Western firms may take for granted a range of institutions that support their business activities, but many of those institutions do not exist in Korea. It is the different institutional contexts that explain why different forms of economic organizations have developed and the success or failure of diversified business groups. Advanced western economies, such as the United States and the United Kingdom, tend to move from large diversified companies to small firms with strong entrepreneurial spirit and high flexibility. They thus favor the focus strategy, even breaking off large organizations, under the support of efficient institutions. For example, effective securities regulations and venture capital firms have helped companies raise adequate financing. Strong educational institutions (including business schools) induce firms into hiring skilled workers when necessary, although a high level of certification promotes worker mobility. In contrast, in Korea, where there exist less developed financial and labor markets, companies
must develop substitutes for those markets’ roles. Firms in the same chaebol provide reserved capital and/or labor resources to each other, when necessary. It is through the chaebol’s internal capital and labor markets that the voids of necessary institutions are filled (Khanna and Palepu, 1997).

Firms in a chaebol also take advantage of the brand image of the chaebol, because building a credible brand requires much higher costs than in advanced economies. A chaebol with a reputation for quality products and services can use its group name to enter new businesses, and has a high incentive not to damage brand image. Unpredictable regulations by the government and the low development of legal and normative aspects of contract enforcement produce high transaction costs for firms (Whitley, 1992). Large firms have an advantage in dealing with the government, and thus a diversified business group can act as an intermediary when an individual firm needs to deal with the bureaucracy (Khanna and Palepu, 1997). Furthermore, in transactions between firms under weak contract enforcement (e.g., low protection by courts when contracts are broken), firms may want to exchange with partners having a good reputation. The chaebol seem to leverage their reputation established through trustworthy deals in the past (Whitley, 1992). Thus, credibility is very important in firms under weak contract enforcement, such as the chaebol. The chaebol, as a group of diversified firms, have no choice but to shape their reputation and image as honest entities or else individual firms will lose their market share if the group reputation

418 *Korean Chaebol in Transition : Road Ahead and Agenda*
deteriorates.

Overall, the chaebol have filled the institutional voids that have long been filled in advanced economies, in line with the arguments of Khanna and Palepu (1997, 1999). It seems that the core competence strategy is not good for the chaebol without changes in the institutional context. More generally speaking, the core competence approach is good only for countries having “advanced” institutions, but it is not yet an effective strategy for those with a less advanced institutional context (Khanna and Palepu, 1999).

This tentative answer provides some insights into an important issue regarding chaebol reform, i.e., the diversification issue. With regard to diversification, the answer obtained above implies that the chaebol do not need to abandon their diversified business empire immediately, but instead that they need to wait until a market infrastructure is erected. We should keep in mind that institutional contexts obviously take a substantial time to evolve, and thus diversification would be effective for a while. Furthermore, the answer above suggests that it is wrong to dismantle the chaebol at this point as it is likely to create more problems (i.e., reduction of the Korean economy’s competitive advantage) than to solve the existing ones. But, that does not mean that restructuring is not necessary.

A reduction in unrelated diversification would promote resource mobility and decrease the financial costs caused by liabilities for unrelated investment. This clearly suggests that
the *chaebol* should reduce business scope (particularly, reduction of unrelated businesses) in the long run.

The long-term direction of the *chaebol* toward focusing on core competencies is in line with the shift toward the network form of organization. In western societies, the
<Table 4> Comparative Analysis of Institutional Contexts

<table>
<thead>
<tr>
<th>Institutional context</th>
<th>U.S.A.</th>
<th>Japan</th>
<th>Korea</th>
<th>Implications for Korea</th>
</tr>
</thead>
</table>
| **Financial Market**  | Stock market-centered (equity focused) | Bank-centered (debt focused) | Inefficiency of stock market and low autonomy of banks | • Inefficiency of valuation in markets  
• High cost for raising capital  
• Requirement of internal capital market |
| **Labor Market**      | Many professional institutes and business schools (certified skills enhance mobility) | • Firm-specific training, learning, and development  
• Lack of professional schools and institutes | • Lack of professional schools and institutes  
• Low development of manager market | • Internal labor market  
• Firm-specific training and development  
• Low development of management skills |
| **Product Market**    | Efficient information diffusion | Efficient information diffusion (yet, less developed than USA) | • Less efficient information diffusion  
• Low recognition of innovations | Necessity of common brand power (business group’s total image effect) |
| **Government Regulations** | • Low Relatively free of corruption | • Moderate Relatively free of corruption | • High  
• Corruption is common | Policy environment causing high transaction costs |
| **Contracts enforcement** | Predictable | Predictable | Relatively unpredictable | • Low trust is norm  
• Lack of mediation when contracts are violated |

Source: adapted from Khanna and Palepu (1997, p.44)

3) The network form started to receive attention by western scholars in the early part of the 1980s when they investigated the Japanese corporate form, which is not quite market but not quite hierarchic either (Clegg, 1990; Powell, 1990). The stable and long-term trustworthy relationship between manufacturers and suppliers is an example of notable features of Japanese networks. This form is in contrast to current western networks, which provide more flexibility and choice to individual firms. In western societies, the network form is conceived
corporations have been losing efficiency in western economies because they cannot handle the informational requirements of the increasingly complex world (Scott, 1995). The decreasing efficiency of centralized bureaucratic firms is also accelerated by the transition from the industrial to the high-tech information-based forms of production.

It is a fact that the network form provides some advantages to western firms. However, whether it is also good for Korea is uncertain. A chaebol is basically of a hierarchical nature, a centrally controlled business group, and it also has some network characteristics. First, chaebol firms continue to perform long-term transactions with each other, and in some cases exclusive transactions occur. Long-term and stable economic relationships are certainly one characteristic of the network form. Second, cross-holdings among individual firms normally exist in most chaebol. Although cross-holding is a multipurpose strategy, it surely is a strong linking pin connecting (or networking) individual firms. This suggests that firms in a chaebol are strongly tied. For this reason, we need to use caution before recommending a change from the chaebol to the network form. A possible recommendation for restructuring the chaebol could be two-fold: promoting the merits of the network form and eliminating the demerits of the hierarchical form.

Here we would like to provide two recommendations:

422 Korean Chaebol in Transition: Road Ahead and Agenda
first, a shift toward weakly tied networks, and second, the adoption of a holding company structure coupled with the elimination of cross-holdings among individual firms. The chaebol are characterized by strong ties among firms, so that they are less flexible. Economic exchanges occur mainly between firms with strong ties, but rarely with outside firms. Even when firms have to choose other partners to achieve more efficient outcomes, they do not have full discretion, which means low flexibility in the network itself. A firm cannot easily “exit” from the chaebol group it belongs to. The issue of promoting the network form is related to the reduction of group “tightness,” which can be partially achieved by eliminating cross-holdings among firms.

The adoption of a holding company structure through the elimination of cross-holdings may improve the chaebol’s financial management. Financial coordination in the chaebol used to be conducted by headquarters. As such, they could subsidize unprofitable businesses by transferring funds across companies and providing cross-guarantees on debts for those businesses. Now, however, the headquarters have been advised to abandon the role of financial coordinator, and rather to play a more strategic role, such as management development, promotion of quality and value, and so on (Khanna and Palepu, 1999). A holding company can take over the financial coordinator’s role that has been taken by the head office.

With respect to inter-firm (or group) financing, we focus on two types, the financing of new ventures and the finan-
cing of ongoing operations. The financing of ongoing operations is best left to commercial banks and the capital market, even though they are not fully advanced yet in Korea (Khanna and Palepu, 1999). However, venture financing is approached from a different angle. Venture capital should be valued because it can provide the chaebol with significant levels of value creation. However, the financing of new ventures is better when left to internal entities. The holding company can act as a venture capital firm without transferring funds from one venture to another. The holding company can provide its ventures with a list of strategies as to how to rely on capital markets and banks. Overall, it is expected that holding company structures can evolve toward a network with flexibility, high transparency and accountabili-ty by eliminating cross-holdings and cross-guarantees on debts among individual firms.

V. Corporate Governance and the Chaebol

The chaebol have been the object of numerous accusations. The list includes being the prime causes of the IMF crisis, monopolies or oligopolies, and inefficient organizations that can survive only through special privileges; using bribery and opacity in accounting; engaging in reckless investment and unrelated diversification (‘octopus diversification’ in the Korean language); and being dominated by families. The aim of this section is two-fold: 1) to evaluate the list of

424 Korean Chaebol in Transition : Road Ahead and Agenda
accusations against the *chaebol* and the *chaebol*-related reform effort by the government from the perspective of corporate governance, and 2) to suggest policy directions concerning the *chaebol* from the perspective of corporate governance.

1. The Concept of Corporate Governance and Its Importance

Corporate governance can be defined as the mechanism to monitor and discipline business management, whether formal or informal. Corporate governance can be divided into internal and external corporate governance. Internal corporate governance includes the board system, headquarters and horizontal control by firms in a group. External governance includes the product market, the ‘corporate control’ market, the capital market, the labor market for managers and the government. The national corporate governance system assumes its own unique character, depending on national, political, economic, social and cultural factors (Jwa, 1999, p. 237).

How corporate governance is organized affects economic efficiency. Corporate governance can promote excessive or insufficient investment, or delay prompt structural adjustment. The failure of direct intervention by the Korean government in the affairs of the business conglomerates shows the importance of the institutional setting that affects economic actors’ incentives. When the institutional setting is
kept intact, past experiences show that reform efforts are doomed to failure. In this regard, the issue of corporate governance should be the main concern of the Korean government in dealing with the chaebol, since it affects actors’ incentives.

2. Behavioral Characteristics of the Chaebol and Corporate Governance

The list of accusations for bad behavior against the chaebol is multi-fold. It includes unrelated diversification, or so-called ‘octopus-like expansion,’ the lack of division between ownership and management, emperor-like rule by the owners, the cross-guarantee of bank loans and cross-investment among firms belonging to the same business group, insider trading, and lack of transparency in information disclosure. The Korean government in power, many scholars and ordinary citizens believe that these characteristics resulted in the IMF crisis. These accusations form the basis for the Korean government’s policy toward business groups. However, these accusations need to be examined on a more rational basis.

First, with regards to unrelated diversification, Korean firms have employed that strategy for firm growth. It does not apply only to Korean firms. Big American firms also resorted to diversification rather than specialization for expansion from 1950 to 1970. To look at the history of Korean firms’ growth, those firms that stuck to the
specialization strategy have not done so well, whereas those that pursued diversification have prospered. The academic society has not produced conclusive evidence on which one of the diversification or specialization strategy is better. Given unclear empirical evidence, judgements on growth strategies should be left to individual firms whose survival is at stake. It is not a matter that outsiders with nothing at stake can decide on. Each individual firm is unique in its resources, history, scale, kind of business, and merits and demerits (Gong, 1999, pp. 214-224).

<Table 5> Number of Business Fields and Affiliates, 30 Biggest Chaebol, 1987-1997

<table>
<thead>
<tr>
<th></th>
<th>87.4</th>
<th>88.4</th>
<th>89.4</th>
<th>90.4</th>
<th>91.4</th>
<th>92.4</th>
<th>93.4</th>
<th>94.4</th>
<th>95.4</th>
<th>96.4</th>
<th>97.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Number of Business Fields</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>17.9</td>
<td>18.3</td>
<td>19.1</td>
<td>18.5</td>
<td>18.8</td>
<td>-</td>
</tr>
<tr>
<td>Total Number of Firms Belonging to the 30 Biggest Chaebol</td>
<td>501</td>
<td>516</td>
<td>531</td>
<td>573</td>
<td>593</td>
<td>608</td>
<td>604</td>
<td>616</td>
<td>623</td>
<td>669</td>
<td>821</td>
</tr>
<tr>
<td>Mean Number of Firms Per Chaebol</td>
<td>16.7</td>
<td>17.2</td>
<td>17.7</td>
<td>19.1</td>
<td>19.8</td>
<td>20.3</td>
<td>20.1</td>
<td>20.5</td>
<td>20.8</td>
<td>22.3</td>
<td>27.4</td>
</tr>
</tbody>
</table>

Second, with regards to the lack of division between ownership and management and ‘emperor-like rule’ by owners, the argument that management by owners is inefficient and professional management is efficient is too simple. The case of Kia motors, an automobile company, shows that professional management can cause a typical principal-agent problem if the proper mechanism to

8. Institutional Changes and Fundamental Transformation of the Chaebol System 427
discipline management – that is, corporate governance – is not working. Owner-management has the upper hand over professional management in rapid decision-making. It also avoids the thorny principal-agent problem. However, management by owners also runs the risk of being inefficient by depending too much on the owners. One such famous example is the owner of one of the biggest business groups in South Korea running for president and using company resources for his political ambitions. Which problem did this cause for Hyundai in terms of management dependence? There are no effective mechanisms to control such behavior in the Korean economy. Internal and external mechanisms to discipline owner-management are almost non-existent. The board system is subordinated to the biggest shareholder. The stable relationship based upon cross-shareholdings among group-related firms precludes the possibility of mergers and acquisitions of the American style. Group-related firms do not seem to play the role of monitoring and disciplining each other, which can be found in Japan (Cho, 1999, pp.230-231).

In situations where even the autonomy of banks is weak, the only control mechanism comes from the government. However, government intervention runs the risk of being arbitrary and thereby forming corruption links between government and the business sector (Hwang, 1998, p.113).

Considering the problem of ownership vs. professional management, the compulsory removal of ownership from management is not desirable. It would just increase transaction costs by jeopardizing property rights, which

428 Korean Chaebol in Transition : Road Ahead and Agenda
would in the long-run cost the Korean economy dearly. Indirect corporate governance approaches are advisable to redress the abuses of market actors.

Third, with regards to the problem of cross-investment among related firms, the case of Japan shows that firm growth has been achieved through cross-investment. Synergy effects and bold investments supported by stable management seem to have contributed to the growth of the Japanese economy. In addition, the relationship-based approach can both decrease transaction costs accompanying market relationships and administrative costs that come with hierarchical structures. Japanese regulations concerning investments among related firms are too lax to have any meaningful effects.

<Table 6> Portion of Shares Controlled by Owners, 1983-1997(%) (30 Biggest Chaebols)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.1</td>
<td>4.2</td>
<td>4.9</td>
<td>4.8</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Related (B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.2</td>
<td>5.5</td>
<td>5.6</td>
<td>5.5</td>
<td>4.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A+B</td>
<td>17.2</td>
<td>15.8</td>
<td>14.7</td>
<td>13.7</td>
<td>13.9</td>
<td>12.6</td>
<td>10.3</td>
<td>9.7</td>
<td>10.5</td>
<td>10.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Related Firms (C)</td>
<td>40.0</td>
<td>40.4</td>
<td>32.5</td>
<td>31.7</td>
<td>33.0</td>
<td>33.5</td>
<td>33.1</td>
<td>32.4</td>
<td>33.3</td>
<td>33.7</td>
<td></td>
</tr>
</tbody>
</table>

<4 Biggest Chaebols>

|------------|------|------|------|------|------|------|------|------|------|------|------|

8. Institutional Changes and Fundamental Transformation of the Chaebol System 429

Fourth, with regards to the practice of cross-debt guarantees among related firms, the weight of cross-guarantees decreases as the size of a business group increases. In addition, the practice is just an adaptation on the part of a firm to the demand of banks. Korean banks, with no owner in command, have operated under the guidance and control of the government. As a result, banking institutions have relied upon collateral security rather than business analysis to lend money. Korean firms facing this situation have had no option but to rely on coinsurance in order to secure bank loans.

Fifth, there are some misconceptions regarding the accusations of ‘insider trading’ among related firms. First, firms are born to conduct insider trading, which decreases transaction costs. Insider trading is not considered problematic in other countries, since business groups are treated as a single firm. In other words, the business group can be used as an effective tool to decrease transaction costs. Second, transactions among parties should be considered beneficial to each other. Otherwise, those transactions would not take place. Third, governmental prohibition against insider trading trespasses on property rights, a fundamental principle of the market economy, which means the right to

<table>
<thead>
<tr>
<th>Hyundai</th>
<th>81.4</th>
<th>79.9</th>
<th>-</th>
<th>60.2</th>
<th>67.8</th>
<th>65.7</th>
<th>57.8</th>
<th>61.3</th>
<th>60.4</th>
<th>61.4</th>
<th>56.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samsung</td>
<td>59.5</td>
<td>56.5</td>
<td>-</td>
<td>51.4</td>
<td>53.2</td>
<td>58.3</td>
<td>52.9</td>
<td>48.9</td>
<td>49.3</td>
<td>49.0</td>
<td>46.7</td>
</tr>
<tr>
<td>Daewoo</td>
<td>70.6</td>
<td>56.2</td>
<td>-</td>
<td>49.1</td>
<td>50.4</td>
<td>48.8</td>
<td>46.9</td>
<td>42.4</td>
<td>41.4</td>
<td>41.7</td>
<td>38.3</td>
</tr>
<tr>
<td>LG</td>
<td>30.2</td>
<td>41.5</td>
<td>-</td>
<td>35.2</td>
<td>38.3</td>
<td>39.7</td>
<td>38.8</td>
<td>37.7</td>
<td>39.7</td>
<td>39.9</td>
<td>40.1</td>
</tr>
</tbody>
</table>
own and sell one’s own property freely.

Lastly, the criticism of the lack of transparency in information disclosure is born out of the fact that the chaebol were found to have concealed much more debt than officially announced. The increase in transparency would surely contribute to economic efficiency because it would help distinguish profitable from unprofitable firms. The globalization of the capital market is increasing the importance of transparency and the pressure for information disclosure. The importance of transparency, however, is conceded only under the condition that the government is benevolent and that property rights are secure. If these conditions are not met, transparency is not desirable both from the individual’s and from society’s point of view. The Korean government has not been benevolent and has trespassed on property often. Lack of transparency has been an adaptation on the part of firms to the discretionary and arbitrary nature of the government. The aforementioned corruption behavior, just like the lack of transparency, has played the role of safeguarding against plunder. Bribery makes the plunderer an accomplice, which can be used for protection (Gong and Kim, 1999, pp. 26-27).

The efficiency of business management has to do with how corporate governance is organized. The aforementioned behavioral characteristics of business groups should be dealt with from the perspective of corporate governance. If there are undesirable characteristics, indirect corporate governance approaches are more effective than direct regulations.

8. Institutional Changes and Fundamental Transformation of the Chaebol System 431
3. A Comparison of American and Japanese Corporate Governance

South Korea, during the financial crisis, faced the short-term task of allocating its large debt fairly among debtors, creditors, government, and the people. However, more important was the long-term task of introducing corporate governance mechanisms so that the productivity and competitiveness of Korean firms would increase. A comparative study of the merits and demerits of the American and Japanese corporate governance systems seems to be helpful in determining how corporate governance should be organized in the Korean context. The past decades have given rise to a growing debate over the relative efficiency of different economic national systems. There are two basic corporate governance systems that predominate in today’s developed economies. One is the Anglo-American “market based” model, with widely dispersed shareholders and a fairly vigorous corporate control market. The other is the “relationship based” system as in Japan and Germany, with their large banks, corporate cross-holdings and conspicuous absence of takeovers. The debate will help to shed light on the direction of Korean corporate governance.

American corporate governance is based on the ‘property right’ view that a firm belongs to shareholders. It is organized in accordance with the “shareholder-value principle” that managers are expected to run firms to
maximize the interests of shareholders who bear residual risks. That is why the American corporate governance system is called shareholder capitalism or ‘shareholderism.’ Shareholders are considered as passive investors. The primary mechanism to discipline management is the active market for tender offers.

The American corporate governance system has several merits. It is well developed for risk management and monitoring. Capital mobilization through the stock market, which was developed early, has resulted in strong demand on the part of investors for information on firms’ policies, financial situation and accounting records. Second, the ‘investigative stage’ before investment is so developed that entry into new businesses is very active. Reliance on the stock market for capital mobilization means diverse and repetitive evaluations by diverse actors. Thereby, the capital mobilization system based upon the stock market has an advantage over the bank-led system in identifying the potential of new industries or ventures. In addition, American-style corporate governance is very effective in restructuring excess capacity. There is asymmetry between growth and decline, which is confirmed by the few firms who are capable of downsizing before a crisis arises. The active market for tender offers can play an important role as an early warning system in forcing managers to address this problem. In the absence of capital market pressures, the only mechanism to deal with excess capacity is competition in the product market. However, when left to the product market,

8. Institutional Changes and Fundamental Transformation of the Chaebol System 433
the adjustment process will be greatly protracted, generating enormous additional costs. The need for the adjustment of excess capacity will become greater with the globalization of trade (Jensen, 1997, pp.25-28).

The American corporate governance system also has demerits of its own. To mention some often-mentioned demerits, first, it does not provide a favorable environment for firm-specific investment, because it is difficult for labor to trust the implicit long-term contract in a situation of ‘unstable’ management. In addition, the market for tender offers operates on the basis of short-term stock prices in such a way that near-sightedness in management tends to occur. As a result, intangible RandD, investment in human resources, efforts to enter new markets, and relationships with suppliers can be neglected. In addition, the market for mergers and acquisitions does not operate as efficiently as it used to in the 1980s because of such measures as poison pills and staggered board systems (Prahalad, 1997, pp.51-52).

Let’s now turn to the Japanese corporate governance system, the other predominant model in developed economies. The mechanism to discipline management through the capital market is not as developed in Japan as it is in the U.S. Instead, Japan relies on organizational networks called keiretsu to control management. One of the main characteristics of the big Japanese firms is that they form a group, or keiretsu, by interlocking ownership around a main bank. Table 7 shows that whereas in the case of the U.S. the share of individuals and institutional investors is
much larger than that of banks and firms, in Japan the share of banks and firms is comparatively large. In Japan, formal mechanisms such as a general assembly for shareholders and the board system do not play a major role in controlling management. Instead, informal inter-firm monitoring plays a major role in disciplining management.

There are some advantages and disadvantages to Japanese corporate governance. The first advantage is that the network relationship helps avoid both the problems of transaction costs involved in the market relationship and the administrative costs involved because of the hierarchic structure. In addition, the stable managerial environment provided by the long-term relationship contributes to the long-term horizon of corporate renewal. This also contributes to firm-specific investment. The main bank system, another characteristic of Japanese corporate governance, also enjoys economies of scale in monitoring firms. The bank-led system is especially effective when a certain country is adopting a proven technology at the catch-up stage. However, the Japanese style of corporate governance can cause an entrenchment effect, which means that the stable relationship based upon cross-investment among firms belonging to the same group can hinder or delay the structural adjustment of inefficient group firms (Jensen, 1997; Kester, 1997).

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>Japan</th>
</tr>
</thead>
</table>

8. Institutional Changes and Fundamental Transformation of the Chaebol System 435
4. An Evaluation of Recent Proposals to Improve Corporate Governance

In recent years there have been lively discussions on chaebol reform. The government has instituted reforms to increase transparency in management, remove or decrease loan guarantees among firms, prevent inappropriate insider trading and reduce the size of debts to an ‘internationally sound’ level. In addition, to check the excessive concentration of power by owners, an ‘accumulative voting system,’ the recruiting of board members and auditors from outside the firm and the strengthening of the rights of ‘small’ shareholders are measures that have been considered or introduced. Under the agreement between the Korean government and the IMF, agency regulations on M&As have been loosened up. These reform efforts have provoked some controversy as to whether the dissolution of the business group system is the primary goal of the government. In this section, these reform proposals will be examined.

Let’s look at the internal corporate governance
mechanisms first. The primary internal control mechanism is the board system. It is common knowledge that the board system has not played its role of checking owners’ powers effectively in Korea. In this context, the recruiting of outside members was made compulsory in the hope that the change would increase the independence and autonomy of the board enough to restrain inappropriate behavior on the part of owner-managers. This reform is based on the implicit assumption that the board system abroad plays the role of checking CEOs effectively. However, even in countries like the U.S., Great Britain, and Canada where board systems are well developed, boards identify more closely with management, who meets with board members on a regular basis, than faceless shareholders. The function of the board does not go further than rubber-stamping the decisions of the CEO. The only exceptions to this usual pattern of behavior are crisis situations, where the board performs the role of changing managers (Prahalad, 1997).

In this sense we should not expect too much of the recent reforms to strengthen the board system. In addition, in contrast to the U.S. where individualism is predominant, ascriptive elements such as blood, region and school play an important role in Korean society. In this situation, it is highly probable that the new board system will lead to insider trading among actors rather than checking and monitoring management on behalf of shareholders (Jeon and Gong, 1995). In addition, if more than 50% of the board of a firm consists of individuals who know very little about it,
management would have to spend much time educating or persuading them, or the firm might be run like a public entity. The interests of shareholders would then not be served, contrary to what the reformers expect from the reform. Inefficiencies in public institutions, like the postal service and schools, are well known in the U.S. as well as in Korea. In a similar context, inefficiencies in the management of national or local governments show how unrealistic attempts at democratizing boards are (Jensen, 1997).

In the final analysis, what is needed to achieve transparency or soundness of management is not direct and compulsory government intervention in the internal control mechanism but market pressure exerted by the invisible hand. In other words, the promotion of rivalry in product markets and the activation of the monitoring function of the banking and security sector will exert pressure for rational and transparent management. If the invisible hand is activated, the otherwise persistent behavior of the firm intruding upon the interests of shareholders or lenders will cost the firm dearly in securing consumers and investors in the product and capital markets (Jwa, 1999, pp.242-243).

The product and ‘corporate control’ markets are the primary external corporate mechanisms. The activation of the corporate control market was performed by the government in an agreement with the IMF. The competition for corporate control through the capital market exerts discipline on management. This corporate governance mechanism is thought to be the most effective method of
checking the power of owner-managers in Korean society. However, the American case shows that we should not consider this capital market solution as a silver bullet.

One of the major problems with the capital market solution is that it is often too late to take meaningful corrective action by the time outsiders intervene. Another problem is that as the American case shows, top managers can find ways to use the legal and regulatory systems to set up roadblocks and...
### Table 8: A Comparison of Corporate Governance Systems of the U.S., Japan, and Korea

<table>
<thead>
<tr>
<th></th>
<th>U.S.</th>
<th>Japan</th>
<th>S. Korea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power of the Board</td>
<td>Minor</td>
<td>Very Weak</td>
<td>Very Weak</td>
</tr>
<tr>
<td>Board Members from Outside of</td>
<td>Many</td>
<td>Almost Non-existent</td>
<td>Almost Non-existent</td>
</tr>
<tr>
<td>the Company (Independence)</td>
<td>(Insufficient)</td>
<td>(Little)</td>
<td>(Little)</td>
</tr>
<tr>
<td>Participation of Banks on the</td>
<td>Small</td>
<td>Average</td>
<td>Small</td>
</tr>
<tr>
<td>Board</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary Level of Managers (Incentive)</td>
<td>Large (High)</td>
<td>Small (Low)</td>
<td>Small (Low)</td>
</tr>
<tr>
<td>Monitoring Function of Banks</td>
<td>Weak</td>
<td>Strong</td>
<td>Weak</td>
</tr>
<tr>
<td>Primary Method of Financing</td>
<td>Securities Issuing</td>
<td>Bank Loans</td>
<td>Bank Loans</td>
</tr>
<tr>
<td>Type of Ownership (Primary Shareholders)</td>
<td>Dispersed (Individuals/Institutional Investors)</td>
<td>Concentrated (Banks/Group Firms)</td>
<td>Concentrated (Family/Group Firms)</td>
</tr>
<tr>
<td>Capital Market</td>
<td>Very Fluid</td>
<td>A Little Fluid</td>
<td>A Little Fluid</td>
</tr>
<tr>
<td>Banking System</td>
<td>Dispersed Transactions</td>
<td>Main Bank System</td>
<td>Main Bank System</td>
</tr>
<tr>
<td>Role of Small Shareholders</td>
<td>Weak</td>
<td>Weak</td>
<td>Weak</td>
</tr>
<tr>
<td>Function of the Corporate</td>
<td>Strong</td>
<td>Almost Non-existent</td>
<td>Almost Non-existent</td>
</tr>
<tr>
<td>Control Market</td>
<td></td>
<td>Semi-Transparent</td>
<td>Semi-Transparent</td>
</tr>
<tr>
<td>Transparency in Management</td>
<td>Transparent</td>
<td>Semi-Transparent</td>
<td></td>
</tr>
<tr>
<td>The Separation of Ownership</td>
<td>Perfect Separation</td>
<td>Separation</td>
<td>Incomplete Separation</td>
</tr>
<tr>
<td>from Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Main Characteristic of</td>
<td>Market</td>
<td>Keiretsu Relationship</td>
<td>Strong Power of Owner-Manager</td>
</tr>
<tr>
<td>Corporate Governance</td>
<td>Mechanism</td>
<td>/Unofficial Practices</td>
<td></td>
</tr>
</tbody>
</table>

440 *Korean Chaebol in Transition: Road Ahead and Agenda*
blocks, which makes attempts to replace top managers very costly. The option of selling stocks and moving on to better-managed alternatives is less feasible today for large institutional holders than it once may have been. Too much time and energy spent on maneuvers involved in mergers and acquisitions takes attention away from the real issue of long-run corporate renewal (Prahalad, 1997, pp.47-48). In addition, the Korean network system makes it difficult for the ‘corporate control’ market to be active.

The movement to strengthen the rights of small shareholders seems to be effective, to some degree, in checking the owner-managers’ opportunistic behavior of serving their own interests at the expense of other shareholders. However, if it goes as far as to intrude on the policy-making realm of entrepreneurs, it undermines the entrepreneurial spirit, which does not serve the interests of shareholders.

VI. Discussions and Conclusion

We have found that chaebol behavior is strongly embedded in the institutions formed in the pre-industrial period and industrialization process, consistent with arguments in the previous literature (e.g., Whitley, 1992). The industrialization path of the Korean economy seems to contribute to the genesis of the chaebol itself. The unique characteristics of the chaebol include strong owner control,
risk sharing with the government due to its strong control over financial institutions, transient relationships between firms, high dependence of market relations on personal ties, centralization of coordination and control in organizations, and low employer-employee commitment. These characteristics are never independent of institutional contexts (formal and/or informal).

Korean institutions show a high level of inter-complementarity. Institutional complementarity (inter-cohesion among institutions) is used here as a proxy indicator for the economic system’s inflexibility hindering the innovation of the system itself. High complementarity found in this study implies that the institutional change in economic system is not easy and requires a substantial amount of time, and so does the Korean chaebol’s reform.

The high complementarity among institutions provides significant implications about the possible changes in chaebol’s strategies for dealing with changes in world markets. One of the key questions raised in this study was whether they have to hold on to their uniqueness even under different economic conditions or if they should reform. Particularly, the issue is over whether their actions are likely to change when facing the global integration of world markets. A tentative answer to this question would be that Korean firms are hard to change and unlikely to adopt the managerial varieties formed by other institutional contexts, because of the high degree of institutional complementarity.

However, the Korean economy is currently under pressure
to break its ties with past behaviors by restructuring the system. The uniqueness caused by the strong cohesion of institutions can be eliminated. The pressure is from the outside and related to the adoption of Anglo-Saxon institutions and practices that are supposedly “superior” or “advanced.” We contend that the chaebol reform will be determined by the absorptive capacity, the ability to absorb innovations in spite of resistance owing to past habits.

We can argue, through a close look at the Korean institutional context, that to adopt a core competence strategy by putting an end to diversification is not a good advice for the Korean chaebol, although it is good for firms in advanced institutional contexts. It is also recommended that a holding company structure would contribute to promoting transparency and accountability and to building weak tied network forms by eliminating cross-holdings and cross-guarantees among firms.

Let’s shift to governance structure. Two predominant models of corporate governance in developed economies are the U.S. ‘market-based’ and Japanese ‘relation-based’ systems. There has been plenty of discussion on the merits and demerits of each model. A comparison of these two systems seems to be helpful in determining the direction of Korean corporate governance. When we discuss these two models, the first thing to remember is that each model has evolved in the historical setting of each country and that it has its own economic rationality. What these models share in common is that internal corporate governance mechanisms,
such as boards of directors, are limited in their effect. The striking difference is that while the corporate control market, through the capital market, is the major mechanism to discipline management in the U.S., Japan relies on its main banks and inter-corporate control.

With these models in mind, which one is more effective in the Korean context? Differences between these two models have their own history and their own advantages and disadvantages. Advocates of each model seem to exaggerate their advantages, while disparaging the other model. The Japanese model seems to be more valid for Korea, considering the fact that business organizations, the capital market, and the labor market in Korea are similar to those in Japan. The U.S. style of mergers and acquisitions to control corporate behavior does not go well with Korean business organizations and culture. The radical reform efforts to transform the Korean corporate governance system into the American-style would be distorting and counter-productive. The Korean corporate governance system should be reformed in such a way that the advantages of the Japanese model would be adopted and the disadvantages would be overcome.

We can suggest reform proposals in connection with the above analysis. The first proposal is to establish a monitoring system among firms and between the main banks and firms. In order to do that, restrictions on cross-shareholding between banks and firms should be removed. A financial group composed of banks, securities firms, and insurance
firms should be allowed to be formed and encouraged to establish a close relationship with a non-finance group. In addition, restrictions on cross-investment among firms, whether they belong to the same group or not, should be loosened up. Instead, the accounting and financial statements of a firm should be reformed in such a way that information on assets and liabilities can be legible and accessible to investors. The board of a firm should be reformed so that the main bank and other related firms can place their members on the board. This would facilitate information exchanges among firms. Monitoring by the main banks and related firms would make up for monitoring by owner-managers in the short run. In the long run, checks and balances among related actors would replace control by the owner-managers.

Although this kind of Japanese model seems to go well with the Korean institutional setting, the thorny problem is how to control the owner-managers. This problem is made complicated by the anti-chaebol sentiment that exists in Korean society. However, the ownership or control of banks by the government does not guarantee more efficiency than the close relationship between banks and firms. Rather, inefficiencies and loose management due to a lack of definite ownership have been confirmed in the past. Past experience shows that the lack of ownership makes the appointment of a bank executive the object of political manipulation, which results in bank lending based on political criteria rather than on economic ones. Governmental measures to address the problems arising from the restrictions on bank ownership.
have been found to be a failure.

The opposition to the removal of restrictions on bank ownership is based upon the fear that it could induce chaebol owners into exploiting money deposits for ‘personal’ purposes or at will. The fear is accentuated by the chaebol’s loose management behavior involving high debt levels, which is thought to be one of the prime causes for the financial crisis.

The real problem lies in the non-competitive environment of the banking industry under the protection of the government. However, as banks fiercely compete for customers, the above-mentioned fear becomes groundless. Customers would avoid those banks that do not manage deposits in the interest of depositors. Therefore, the real issue here is to restore competition in the banking industry. This applies to the product market as well. The right direction of government intervention with regards to the chaebol is to increase competition by removing barriers to entry as much as possible so that firms and financial institutions evolve by striving for survival. Fierce competition can also address the ‘entrenchment effect,’ one of the problems of the Japanese style of corporate governance.

The Japanese style of corporate governance tends to have some difficulty in performing structural adjustment. To facilitate this process, tax and other favorable measures regarding mergers and acquisitions should be adopted (Lee, 1998, p.69). The government should take measures such as

446 Korean Chaebol in Transition : Road Ahead and Agenda
the opening of the domestic securities market to foreign capital to strengthen the function of the securities market. This would help discipline management. In addition, the rights of small shareholders should be strengthened to some extent to check the inappropriate behavior of management (Jwa, 1999, p.249).

The government should abandon the hubris of the past government policy that it knows better than anybody else. Past policy measures by the government have been counter-productive and have increased the resistance power of firms, with everything else intact. The obvious truth that consumers and firms whose interests are at stake know better than anybody else should inform and guide government policy measures concerning the chaebol like any other issue.

From an institutional perspective, the transformation of the chaebol is highly dependent on institutional reform. We should keep in mind that institutional contexts take a long time to evolve. We also have to realize that the chaebol have filled the institutional voids that were not well provided owing to weak market infrastructures. It may not be a good advice for us, at this point, to force the adoption of advanced countries’ practices and institutions. Because different aspects of the institutional environment have often coevolved into a well functioning system, changes along any one dimension of an institutional environment can have unanticipated (or adverse) effects on other dimensions. Furthermore, it is not clear yet whether any one institutional context is obviously superior to others. Particularly, it

8. Institutional Changes and Fundamental Transformation of the Chaebol System 447
requires caution to imitate American institutions and practices, because the United States is a country where few institutional voids exist. Thus, it could be dangerous to blindly apply the management mantra of the day, like the core competence strategy.
References


8. Institutional Changes and Fundamental Transformation of the Chaebol System 449


8. Institutional Changes and Fundamental Transformation of the Chaebol System 451


Kim, Dong-Woon, “Governance Structure of Korean


Meyer, J. W. and Rowan, B., “Institutionalized Organizations: Formal Structure as Myth and


Putnam, R.D., “Bowling Alone: America’s Declining Social


