도시계획학 박사학위논문

Evolution and Characteristics of Korea's Real Estate Development Industry

한국 부동산 개발산업의 변천과 특성

2013년 8월

서울대학교 대학원

환경계획학과

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이 논문을 도시계획학 박사학위논문으로 제출함

2013년 4월

서울대학교 대학원

환경계획학과 도시및지역계획 전공

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김윤정의 박사학위논문을 인준함

2013년 6월

위 원 장 _______________ (인)

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Abstract

The outset of this study started with a question of why there is an absence of a large, professional real estate developer in Korea, however a domination of construction companies in development activities. The study traces the formative years of Korea's modern real estate development industry and explores how different factors within their historical socio-economic background have contributed to characterizing today's development industry. It focuses on the interplays of government intervention, space and asset market and the respective responses in the industry. The study aims to provide some explanations for the current underdeveloped, inactive presence of Korea's development industry.

The fundamental emergence of extensive real estate development began with the country's ambition to achieve rapid economic growth and to cope with the subsequent urbanization, under the reign of President Park Chung-Hee's authoritarian regime during the 1960s and 1970s. In the course of pursuing such economic growth and coping with rapid increase in rural-urban migrants, the government's command-driven economy posed a unique setting in the formation of her development industry which laid a foundation on its current characteristics. The main findings of the study are as follows.

One, the excess demand and government's heavy intervention in the space market resulted in reduced role of developer. As fast rate of urbanization continued apace, the housing shortage became acute with surging demand that outpaced supply. In response, the government

assumed an exclusive role of land development to expedite the development process which restricted the developers of such activities from the outset. Meanwhile, the Korean government imposed a price control on new housing supply. Under such control, the entrepreneurial freedom of identifying a target market, employing differentiated design and so forth which are considered to be the domain of real estate developer was limited. In such environment, the profit maximization strategy of a developer was to maximize quantity and at the same time to minimize cost of production. In effect, the attractiveness of combining development and construction was greater in which construction companies were well suited, undertaking massive *physical* constructions of housings of *match-box* design.

Two, the large capital requirements by massive apartment-type housing and limited access to capital in the asset market necessitated financial strength of the developer to initiate and drive development. The government's incentivized policies as well as the booming market spawned active participations of the market players in the developments of apartment-type housings that involved intensive capital investment. However, the government's strong regulatory oversight on the financial system, deliberately restricting capital inflow into real estate, resulted in the unavailability of capital in the asset market. As a consequence, such condition required commitment of considerable amount of equity capital from the developer him or herself.

The resulting consequence of the reduced role of developer and the need of one's own capital to initiate and drive development project was the non-emergence of a true, professional real estate developer. With presence of low market risk and low approval risk, the big construction companies were more than eager to jump into development business. With their financial strength and capability in massive *physical* construction, they

have come to exert dominancy in Korea's real estate development industry. Korean government's decisive role in large-scale land developments as well as massive and timely *physical* constructions by financially strong, big construction companies thus enabled such extensive real estate developments in a short-time frame.

Going forward, as Korea transforms from developing country to developed country and experiences stabilization of economic growth and flattening of population growth, the characteristics of her development industry will not be the same as in the past. With greater emphasis on 'value-maximization' of development and financial capability to successfully undertake such development, it is anticipated that the credit-constrained and non-professional developers are competed out of the market and developers with expertise and financial strength dominate.

Keywords : real estate development industry, real estate developer, construction company, government intervention, space market, asset market, Korea

Student ID : 2008-31071

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Chapter 1. Introduction

1.1 Research Background and Objectives

1.1.1 Research Background

It has been a little over a decade with the onset of economic, financial and regulatory reforms during the so-called "IMF period" of 1997-98 that Korea finds an emergence of "real estate developers". This is not to say there was no real estate developer prior to this period, however not so nearly prevalent nor an active topic of discussion in Korean economy as it became after this period. As with other many developing countries, in Korea, real estate as a profession is yet very much underdeveloped. In fact, professionalization of real estate development is rather a recent phenomenon. Korea Developer Association ("KODA"), an organization for professionals in real estate development business was established in 2005, a twenty-year after the forming of National Association of Real Estate Brokerage in 1985.

Today, a great majority of real estate developers in Korea are small and financially-weak, many of whom are transient, looking after one-time deal. There is an absence of a large, professional developer as we find in developed countries such as the United States, Japan, Hong Kong or Singapore, who orchestrates the entire development process and at the same time takes the appropriate risk for the expected return. A Korean developer would typically inject approximately 3 to 5 percent of the total development cost (Koramco, 2010) and the rest would be raised from presale proceeds and debt financing. Lenders, due to their lack of experience in real estate lending as well as weak credit standing of the developers, rely on construction companies for credit enhancement of the loan. Burdened with project risk, construction companies become greatly involved in development activities and dominate in decision-making processes of the development. As soon as *all constructions* are completed, the properties are sold off and financial burden of the developer as well as construction company is relieved.

The current makeup of Korea's real estate development industry poses many problems and challenges. Firstly, with heavy reliance on revenue from pre-sellable properties and debt financing, there is a high financing risk which in turn, inevitably poses higher risk for the project. Secondly, provision of guarantee by construction companies stifles entrepreneurship of developer and the construction cost is inflated as part of the guarantee. Thirdly, the popularity of exit strategy of 'develop and sell' inhibits the value enhancement of the developed property which is realized through a long-term operation and management.

The makeup of real estate development industry varies across different societies. The main actors in the industry, the roles they play and the interactions and power relations among each other in the processes of development vary substantially. Past research findings suggest these variations across societies or countries result from different factors of land supply, property rights, financial system, market conditions, regulatory constraints, to name a few (H. Molotch and S. Vicari, 1988; P. Healey and S. Barrett, 1990; P. Healey 1992; M. Ball, 2003). These factors are *place- and time-* specific, as expressions used by of Han and Wang (2003), in considerable degree, characterized by particular socio-economic backgrounds of a country. This includes stage of economic development, role of the state with different degrees of interventions and level of financial development. Therefore, understanding how different factors in relation to Korea's socio-economic context have come to play in characterizing and shaping the current makeup of the industry would be illuminating. A comprehensive examination of the industry would shed a light on the industry's current problems as well as provide a foresight on the future prospects of the industry.

1.1.2 Research Objectives

The main objectives of this study are two-folds. One, the study aims to outline the current characteristics and the associated issues of Korea's real estate development industry. It presents the current inactive presence of development industry and addresses its issues. Two, the study seeks to trace the formative years of Korea's modern real estate development industry from 1960s and explore how different factors within their historical socio-economic background have contributed to the current makeup of the industry. It focuses on the interactions of space market and asset market and subsequent responses of main actors of development. It is argued that state-led economic development and government's heavy involvement in the real estate sector have greatly influenced how the space market and the asset market are structured and in turn respective responses by the developer. The study aims to provide some explanations for the current underdeveloped, inactive presence of Korea's development industry. The study also examines the future prospects of the industry focusing on the factors that may trigger the transformation of the industry.

In contrary to the great interest in real estate, the industry itself has not received much academic attention to date. Scholars have explored the characteristics and problems in Korea's real estate development industry, many of which are journalistic accounts of interest coalition that exist among construction companies, political parties, and government officials or current problems in project financing of the development project. However, there is a great deficiency of studies which comprehensively examine how the industry came to be organized as the way it is today.

This study would serve, on an international level, as an example to developing countries illustrating how Korea’s state-led industrialization and great economic achievements have shaped an entire nation’s development industry and influenced the very fabric of its society. At the same time, it will shed light on how these characteristics have enabled such rapid industrialization and economic growth, lessons that would be much emulated by other countries. Moreover, this study would provide a foresight on the future prospects of the industry to various actors in development industry, including real estate entrepreneurs, financial investors and policy makers. For these actors to benefit from the industry evolution, as Linneman described (1997), understanding how the industry would transform and what forces would bring such transformation are critical.

1.2 Research Methodology and Organization of Study

1.2.1 Research Methodology

The methodology of study mainly relies heavily on literature review. This includes published books, papers, newspapers and various statistics published by the government. The literature review provides a general overview of how the industry has evolved through the history of modern Korea and offers hints to the factors that have played to shape the industry as we find today. To confirm unique characteristics of Korea’s development industry and support arguments made in this study, the study additionally carries out one-to-one in-depth interviews with two(2) real estate developers who have experiences both in the US market and Korean market. An ex-managing director at Gale International Korea, LLC and an ex-senior director in Portman Holdings, who each have engaged in the execution of mixed-use urban development projects at New Songdo International City in Incheon. Moreover, informal discussions with the main participants of the industry, that is, real estate developer, construction company and lender are made. In summary, this study will be a descriptive and qualitative research relying much upon literature review and general observations of the activities in real estate development industry.

1.2.2 Organization of Study

The study is organized into five(5) chapters (Figure 1.1). Following Chapter 1 on the objectives and methodologies of study, Chapter 2 provides an overview of real estate development and the industry. It illustrates a framework that defines the characteristics of real estate development industry, an interaction of space and asset market and government's involvement in such interaction. Chapter 3 explores the historical evolution and the current makeup of Korea's real estate development industry emphasizing the pronounced characteristics that differentiate from those of advanced countries. The chapter addresses the issues that are present in Korea's development undertakings. In Chapter 4, the study examines the formative years of Korea's modern development industry, that is, the housing development industry. The chapter identifies the key factors that have led to predominance of construction companies and at the same time inactive presence of real estate developers in development industry. In Chapter 5 concludes with presenting an outlook on the future prospects of Korea's development industry.

Figure 1.1 Research Flow

CH. 1	Introduction	**Introduction of Research Background and Objectives** • Research Background and Objectives • Research Methodolgy and Organization of Study
CH. 2	Real Estate Development and the Industry	**Definition of Real Estate Development and the Industry** • Definition of Real Estate Development • Main Actors in Development Industry • Government, Market and the Development Industry
CH. 3	Charateristics of Korea's Real Estate Development Industry	**Current Characteristics of Korea's Development Industry** • Historical Evolution of th Industry • An Overview of the Industry • Main Characteristics and Issues
CH. 4	Factors Characterizing Korea's Real Estate Development Industry	**Identification of Key Factors that Characterized the Current Korea's Development Industry** • The Socio-Economic Background • Government's Heavy Intervention in Development • The Space Market and the Asset Market • Respective Responses in the Development Industry • Summary of the Main Findings
CH. 5	Conclusions : Future Prospects and Challenges of Korea's Real Estate Development Industry	**Future Prospects and Challenges** • Korea's Development Industry in Transition • Future Prospects and Challenges • Concluding Remarks

Chapter 2. Real Estate Development and the Industry

2.1 Definition of Real Estate Development

In Real Estate in American History (P. Davies, 1958), Miles Colean introduces the book with the statement that "It is not too much to say that the wealth of the nation and the happiness of its people are largely dependent upon the way in which its land is developed. Our history has been one of creating realty value through settlement, cultivation, and building". This statement would be true not only to Americans but to most people in other parts of the world as well. Real estate manifests wealth for individuals as well as for nations and the task of creating wealth from real estate is carried out by such development activities. Profits are generated in the processes of land exchange, development, construction, operation and sales of completed properties (P. Healey, 1992). At the same time, real estate development plays a major role in economic development as it provides space for *production* (e.g. office and retail spaces) as well as *consumption* (e.g. housing) and affects the nation's urban fabric and citizens' daily lives. In essence, a real estate has both a use value and an exchange value (J. Logan and H. Molotch, 2007) and it always has been a matter of great interest to both private sector as well as public sector.

There are various definitions of real estate development that have been defined by different scholars and practitioners. Urban Land Institute defines real estate development as "a multifaceted business, encompassing activities that range from the renovation and re-lease of existing buildings to the purchase of raw land and the sale of improved parcels to others". Mike Miles et al. define it as "an idea that comes to fruition when consumers-tenants or owner-occupants-occupy the bricks and mortar (space) put in place by the development team". Despite some differences in definition by individuals or by societies, it encompasses activities of idea development, application of design, financing, and marketing and so forth, making improvements to the real property thereby enhancing the its value and the built environment we live in. To put this in other words, the aim of development is to "identify, realize and capture total value of real estate effectively and efficiently" (W. Seabrooke et al., 2004). The value-enhancement or the value-creation component of development sets apart from *sheer* building of physical structures.

There are some unique characteristics of real estate development which are more pronounced than any other business activity. One, real estate development involves capital-intensive investment as any single development project may range from few millions to few tens of billions in cost. Therefore, a timely financing becomes an integral part of development activities and is considered to be the life blood of real estate currently, as well as historically (P. Davies, 1958). Two, it requires a long-term commitment, both on the part of the investment as well as the activity itself. A typical development project takes at least few years to more than a decade period to secure site, obtain public approvals and complete construction. Therefore, it poses particularly a high risk as great amount of capital is at stake with various uncertainties and risks involved in every phase of long-term development period. For example, difficulties may arise in land acquisition or financing. The cash flow may fall short due to low marketability of the property. Moreover, there may be delay or cancellation of obtaining approvals or delay in construction schedule or overrun in cost, to name a few. Therefore, real estate development is considered to be a creative, entrepreneurial process which entails a high risk, however potentially a high return. Three, since real estate development has an important impact on immediate neighborhood as well as a nation's economic future and quality of life (S. Fainstein, 2001), there is an involvement of the government, even in the most free-market country. Development is influenced greatly by government's regulatory framework, whether by land-use zoning, building code, etc.

2.2 Main Actors in Development Industry

The main actors that constitute the industry include real estate developer, equity partner, lender, construction company, and government. They are considered to be the stakeholders of the real estate development project, those who take the risk of the development undertaking[1]. There may be a considerable degree of variations across society, but the following describes the roles and responsibilities of the actors in societies which have greater presence of development industry.

① Developer

A developer is the development party who is actively involved in the development process, willing to take the risk with interest in upside potential of development and gain a good reputation for their entrepreneurship and expertise.[2] There is no generally accepted definition

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[1] There are other actors in development activities who do not take the financial risk as the stakeholders, but are involved in the project. They include design team, market consultant, leasing agency, property management company, etc.

[2] There are other types of developer who involve themselves in only up to certain stage of the entire development process. Zuckerman and Blevins (2003) categorizes real estate developers in five(5) groups: i) Land developer who purchases raw land and sells improved land or parcels to others after completion of subdivision, ii) Speculative developer who develops without having a commitment to buy or lease from a purchaser or tenant and anticipates long-term operating cashflow and increase in value of real estate. iii) Fee developer who do not own the project but is

to determine who is a developer and who is not (R. Peiser and A. Frej, 2003). In effect, anyone can be a developer. For instance, a construction company whose main business is in construction can be a developer when it acquires land, subdivides and builds houses on it for sale. However, it is not when the company is contracted to build on a client's land (E. Coiacetto, 2009). Developers are the ones at the center of development, who finds the opportunity and essentially make the development happen. A developer undergoes an entrepreneurial process of coming up with a development idea, locating and purchasing a tract of land, attracting investors and lenders to finance, developing design, obtaining necessary public approvals, building the structure, leasing, managing, and ultimately selling it (R. Peiser and A. Frej, 2003). They are, in fact, conductors in orchestra who oversee and orchestrate the entire process of development to ensure the success of such development.

② **Equity Partner**

Equity partner is one who takes a share in the ownership of the project with the developer by providing equity capital into the project. That is, equity partners too, inject capital for the upside potential of the development, however undertaking the downside risk as well. They look for places to invest and provide funds for development in return for expected profit from operation and sales of the improved property. There are three(3) forms of equity partners in development projects : joint venture (JV) partners, passive investor partners and mezzanine fund partners.[3] Joint venture partners generally consist of other real estate

compensated by fee from the project owner for his or her time and expertise in development, iv) Merchant builder who develops to sell property before, during or at the completion of construction, and v) renovators and converters who renovates or converts uses of the building for greater efficiency in the use of the real estate (recited from J. S. Son, 2008).

[3] Explanations of these three forms of equity partners are re-written, cited from A.

operating companies or entities that take an active role in development, such as REITs, public corporations and private companies. The partner or partners bring their own capital to the project in the form of equity as well as bring their skills and knowledge to co-develop all or a portion of the project. Passive investors contribute capital to the developer but do not take an active role in the project which includes opportunity funds, institutional investors, high net worth individuals and friends and family. They are financial investors whose sole interests are in the financial return from their investment. Mezzanine funds fill the gap between senior debt and equity, a gap between what the lenders will provide and what borrowers want from debt sources. Mezzanine fund providers take an in-between position of debt and equity partners, typically including a combination of fixed-income component and a right to participation.

③ Lender

A lender provides capital as a debt form to the development party, the borrower. They provide funds for the cash shortfall during the phases of development that are not financed by equity injections or revenues generated from presale of the properties. They play a large role in financing for development as the debt portion, in most cases, is larger than that of equity. A lender receives specified rate of interest over specified period of time plus additional fees associated with lending. The lender are not risk takers and therefore do not expect to share upside potential of the project but to have an assurance of repayment of the loan. Therefore, the lenders would require priority of claims to the assets of the borrower and a protection system such as mortgage on other property and 3rd party guaranty to protect themselves from the default in the debt obligations of the borrower. There are typically three financing stages in debt financing :

Bayster (2005).

financing for the purchase of land, construction financing and permanent financing. If land acquisition costs are not fully covered by equity, there may be a separate financing to purchase land. The construction lender provides funds for the construction cost. The loan is paid in full when the construction is completed and revenue is generated by property sales. However, when the borrower decides to hold the property for certain years to operate, permanent financing is required which lends against the rental income streams with operation and management of the developed property. Since different types of lenders have different preferences for longer or shorter time horizon and lesser or greater amount of risk hence return, they look to supplying funds for development at different phases of financing (M. Milles, 1999). Lenders of construction financing look to lend money for a short period, typically less than three(3) years. They require comparatively greater return and a stronger protection system as there exist greater risk to lending during construction phase, when the property yet lacks values. Lenders of permanent, long-term financing look for a more stable and reasonable return on the loan over a long-period, typically over ten(10) years. Major lenders in development include commercial banks, savings banks, insurance companies, pension funds, etc.

④ Contractor

A contractor, the construction company, also plays a crucial role in the industry since they are the ones responsible for the *actual* delivery of real estate development product. In fact, it is the construction company that realizes the actual *physical outcome* of development efforts. Completion delay and/or cost overrun may have a severe impact on the cash flow which may in turn be financially detrimental to the entire project. Thus, assured delivery of the product on time and on budget and to specified quality by the contractor is very critical in the success of the development project. As such being the case, the greater the size of the project, choosing an experienced and reliable contractor becomes crucial.

⑤ Government

The other main actor in the industry is the government. They are regulators of development process who have the authority to various approvals before a development can begin. They ensure that the development project is in conformity with public regulations, which include land-use zoning, development control, building codes, provision and maintenance of public infrastructure, etc (W. Seabrooke et al., 2004). Such regulations are placed “to produce a fair and efficient system for allocating land uses and spur high-quality development” (M. Miles et al., 2007). They protect the public interest from negative externalities that may arise from development as well as satisfy such common interest of economic development goal and quality of life. In addition to being a regulator, the government or the public sector may also partner with the private developer forming a public-private partnership to undertake a development, pursuing both the private and public ends.

2.3 Government, Market and the Development Industry

2.3.1 Government, Market and Respective Responses in Develop -ment Industry

As mentioned in the introduction of this study, several findings suggest that variations in land supply, financial system, market conditions, regulatory constraints, etc. determine how a development is achieved in different societies (H. Molotch and S. Vicari, 1988; P. Healey and S. Barrett, 1990; P. Healey, 1992; M. Ball, 2003). The development industry is characterized by the interactions of space market and asset market and the government intervention which govern the competitive strategies adopted by the market players in the industry.

In general, the initiation of a development is driven by demand in the space market, though demand may be prompted by new supply. Economic expansions (e.g. GDP and employment growth, household income growth) and population growth are essential drivers of new demand for space. Once having identified a specific demand, the developer would grasp the opportunity to fill that demand. However, the time-lag in construction impedes timely supply on demand which contributes to the strong cyclical feature of real estate. To finance for the development, the developer will reach to the asset market for access to capital. Since real estate development requires an intensive capital investment, accessibility to capital in the asset market is pivotal. Those who are interested in the upside potential of development will provide capital as equity, however requiring to take the relevant risk. Those who are more risk averse will provide capital in debt form. In fact, in order to match the funding needs in different phases of development and different risk, the presence of wide spectrums of investors with various risk-return profiles is important in facilitating the development process. Government intervention is another factor that determines the characteristics of development industry. Since real estate development projects have public aspects of both direct and indirect influences to a society, development controls imposed by the government are unavoidable even in the most freest market. However, the degree of intervention may vary across societies. In each stage of the development process, there may be strict regulations on land development, construction standards and such which impose constraints on the actions of market actors.

Depending upon such factors of the space market and the asset market, and the various constraints that government imposes on development, the competitive strategies adopted by real estate developers are different. For example, when there is a presence of surging demand that outpaces supply that can be witnessed in the economic expansion period of a developing country, the low market risk will motivate the developer the build. However, such behavior may be offset or impeded by the inaccessibility to the necessary capital. In societies where there are great capital availability and wide-ranging equity investors and lenders that have different risk-return appetite, development may be driven by such capital. For example, in societies like United States with almost unimaginable amount of capital, the asset market tends to trigger and drive development for financial return (W. Seabrooke et al., 2004). However, in societies with underdeveloped financial system, development cost may need to be financed elsewhere other than the formal financial market, whether it is from the informal market or from their own pockets. Moreover, in respect to government involvement in development, depending upon the degree of its intervention, the role of a developer may be replaced by the government, or the developer is provided with subsidies or incentives, for example. There are many studies that argue that government's regulatory framework determine the competitive strategies adopted by developers (J. Barlow and A. King, 1992; J. Doling 1999; M. Ball, 2003). In fact, the public and private end is always at work governing how a development is achieved. In summary, as mentioned in the introduction of this study, a development industry is "*place*- and *time*-specific" (S. Han and Y. Wang, 2003), in which the industry is characterized by particular socio-economic backgrounds of a country that determine the level of economic and financial development and the role of the state with different degrees of interventions.

2.3.2 Different Ways of Development

Despite variations in the characteristics of real estate development industry of different societies, some common characteristics of the way real estate development is achieved are exhibited by countries at similar stages of economic development. More specifically, the size of development need, the role of the private sector and the public sector, market maturity of stabilized asset and such vary across different societies but share common features within the same group of economic maturity.

A study done by S. Weikal in his master's thesis titled, New Emerald Cities : Mega Developments in the 21st Century (2008), show that development characteristics differ among established market, transitional market and new markets. Here, primarily, the established market refers to Western countries, transitional market, Asian countries and new markets, the Middle East. In particular, the established market, or high-income countries in which most people have a high living standard exhibit stabilized economic growth with flat or negative population growth. Commonly, they are considered to be the developed countries. The transitional market is considered industrialized economy however with low or middle levels of per capital income. In such market, high economic growth and rapid urbanization is witnessed by rapid pace of industrialization. According to the World Bank, depending upon who defines them, the transitional market may be included as developed countries, as opposed developing country.

Table 2.1 summarizes the findings from the thesis that compares the development characteristics of the established market, i.e. the developed countries and transitional market, i.e. the developing countries. In the established market where there is a stabilized economic growth and a flat or negative population growth, the scale of real estate development is relatively modest, except for few large urban redevelopment projects. Such established economy enjoys free market environment where there is comparatively low degree of government intervention in development.

Table 2.1 Development Characteristics of Established Market vs. Transitional Market

Category	Established Market	Transitional Market
Market Driver	Demand	Demand
Project Size	Small, Medium	Medium, Large
Master Plans	Government, Developers	Government
Land Acquisition	Open Market	From Government
Speed of Development	Slow	Medium, Fast
Market for Stabilized Assets	Mature	Immature

Source : Re-edited from S. Weikal (2008)

Therefore, the (private) developer has the wide latitude in their decision-making and role in development. However, with absence of government's direct control, the public approval process, in fact, may present extended time scale of development. This is one of the reasons why in many cases, the speed of development in established markets are comparatively slow than that of the transitional market. Moreover, in the established market, it manifests maturity for stabilized asset. In such case, the stabilized cashflow generated from the completed assets allow such assets to become financial vehicles, instead of commodities for speculations based upon investors' *speculative* assumptions.

In the transitional market where there is high economic and rapid population growth, the scale of real estate development is relatively large. Since transitional market does not have large capital stock already in place, however manifests unprecedented increase in demand, inevitably, it requires developments at large-scale and in short timeframe. Moreover, in such market, generally, the economy is centrally controlled with comparatively high degree of government intervention. This is due to government's goal of economic development and its efforts to cope with fast pace of population growth. Therefore, the master developer or planner is typically a government entity. Typically, the government directs massive clearings on behalf of private developers in land acquisition, exercising the power of eminent domain which accelerates the land development process. Otherwise, this poses a high risk in time extensions of development. Therefore, with government taking a direct role in land acquisition, development is achieved comparatively within a short period of time. Moreover, due to the presence of high economic growth and excess demand in the transitional market, the market for stabilized asset is yet immature with high volatility in prices. This contributes to the rampant speculative activities by the market players, reaping profit from capital appreciation.

Chapter 3. The Characteristics of Korea's Real Estate Development Industry

3.1 Historical Evolution of Korea's Development Industry

3.1.1 State-led Real Estate Development : 1960s and 1970s

It has been little over half a century since the term 'real estate development' became to be actively discussed in Korea's economy. Prior to 1960, real estate business was considered merely as an activity of 'buying and selling properties' or 'leasing and receiving rents' (T. K. Lee, 1972). No extensive real estate developments were undertaken other than reconstruction efforts of rebuilding devastated capital stock that were severely destroyed during the Korean War (1950-1953).[4] However, with the advent of Five-Year Economic Development Plans under the President Park Chung Hee's authoritarian regime in the 1960s, real estate business became to evolve as converting raw land of agriculture, forest, etc. into urban use (T. K. Lee, 1972). To support such outset of modern real estate development, various laws were enacted during the period of 1960s and 70s. These include Urban Planning Act (1962), Architecture Act (1962), Land Readjustment Project Act (1966), Promotion of Housing Construction Act (1972) and Urban Redevelopment Act (1976), to name a few.

The beginning of Korea's modern real estate development industry in

[4] The War destroyed more than half of roads, railways, bridges, power supply facilities and industrial facilities. Moreover, an estimated 660,000 out of 3.28 million houses were destroyed (Y. Park and Y. Kim, 2010).

1960s and 70s can be characterized as state-led or state-controlled. Under the reign of President Park Chung-Hee's authoritarian regime, the nation underwent a period of highly accelerated industrialization in which the state played a central role in structuring the economy and forging commercial growth. The government exercised a dominant control over most infrastructure expansion projects and real estate development activities. To note, local governments such as City of Seoul and public corporations such as Korea National Housing Corporation and Korea Land Corporations, established in 1962 and 1975, respectively, were squarely at the helm of such activities. The government exercised dominant control over all criteria of development, that is, what to develop, where to locate, who will provide the fund, who will build and so forth.

Based upon state-led growth strategy, developments of industrial estates, massive physical infrastructure expansions such as bridges, roads and tunnels, and extensive urban developments in Yeouido, Bampo, Jamsil and Gangnam districts, for example, were undertaken. Such developments were considered as means to support national goal of economic growth as well as to cope with surging demand for housing due to sharp increase in urban population. In fact, as highlighted in Table 3.1, until the late 1970s, civil constructions consisted of more than half of total construction contract amount. Due to public feature of such civil structures, the government played a direct role in such undertaking.

Meanwhile, in the private sector, undertakings of construction orders from the public sector were predominant. In contrasts to more fortunate societies such as Japan and advanced Western societies, Korea did not experience flourishing of capital accumulation neither in agriculture nor commerce. Therefore, without the foundation of accumulated wealth or capital, the private sector had little money to initiate and drive real estate development. There was no Rockefeller in Korea. However, entering the

Table 3.1 Total Construction Contract Amount by Year

	Total Construction Contract Amount		Building	Civil
Year	KRW in BN	Growth	KRW in BN (%)	KRW in BN (%)
1976	519	-	188 (36)	321 (62)
1980	2,062	297%	1,174 (57)	850 (41)
1985	5,388	261%	2,944 (55)	2,355 (44)
1990	20,964	289%	13,345 (64)	7,491 (36)
1995	49,025	134%	32,240 (66)	16,402 (34)
2000	41,777	-15%	27,285 (65)	14,354 (34)
2005	85,182	104%	60,882 (71)	23,663 (28)

Source: Korea Statistical Office (http://www.kosis.kr)

mid-1970s, with accumulation of capital, a gradual emergence of more direct involvement in development undertakings was witnessed in the private sector, particularly in developments of apartment-type housings.

3.1.2 Construction Company-led Real Estate Development : 1980s to 90s

Until the end of 1990s, the central activities in Korea's real estate development industry were largely limited to large-scale housing developments. With strong economic expansions and income growth, particularly during the period of early 1980s to early 1990s, commercial spaces were being provided as well. More specifically, redevelopments of CBD area took place with constructions of commercial buildings by big business groups such as Samsung, Hyundai, Hanhwa, and Kyobo. However, as landowners, they hired architects and contracted construction companies to build office buildings, in particular, mainly for corporate use. There was no consideration for income potentiality of space or profit generation from such development other than expectation of capital appreciation thru escalation of land price. Essentially, by late-1990s, there has not been yet an establishment of real estate development industry except for housing development industry.

In respect to housing development, with constant shortages of housings which demand outpaced supply, Korean government increasingly encouraged the private sector to undertake development at massive scale. Beginning mid-1970s with Hyundai E&C's housing construction in Apkujung-dong, big construction companies of *chaebol* group jumped into development business of apartment complex as it proved to be a profitable one. In particular, during the period of 1988 to 1992, big construction companies undertook massive housing constructions in five(5) new town developments, as a response to the government's attempt, arguably the first, to increase housing supply at large scale. To note, such companies experienced a rapid growth with accumulation of capital from namely, constructions of physical infrastructure, successful developments of large-scale apartment complexes as well as overseas constructions. The nation's construction needs in physical infrastructure and housing at massive scale and government's promotion of overseas construction resulted in their marked growth.[5]

Meanwhile, *chaebol* as major undertakers of industrialization, they experienced a great increase in wealth. With the advent of Korea's market liberalization program, *chaebol* were able to secure a nearly unmitigated foothold in the country's financial system. Therefore, combined with continuing strong real estate market and relatively easy access to funds by *chaebol* group, the construction company, offshoots of *chaebol* groups imprudently expanded their development activities. Land was purchased,

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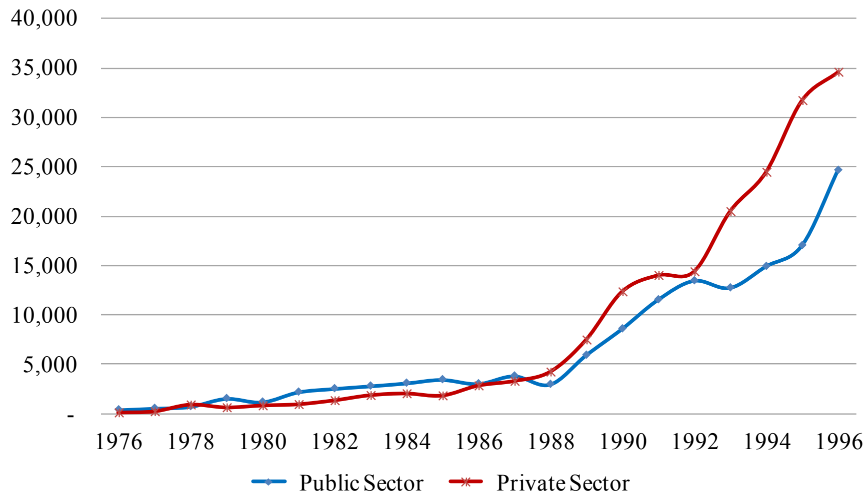
[5] This can be evidenced by the allowable maximum contract amount per construction project of a company. For example, for Hyundai E&C, it increased from KRW 14.3 billion in 1970 to KRW 141.8 billion and KRW 1,032.7 billion in 1977 and 1982, respectively.

developed and sold, essentially dictating the criteria of all transactions. Moreover, the financial sector, in an effort to compete for business, was liberal and aggressive in their lending policies, allowing real estate to be used as collateral basis for the loans (P. Doran, 2000). Therefore, construction companies employed corporate financing to expand such development activities which their debt-to-equity ratio reached in excess of 600% prior to 1997 (K. M. Lim, 2010).[6] To note, real estate development increasingly came under the purview of the private sector and by 1988, total value of construction orders of private sector surpassed that of the public sector as exhibited in Figure 3.1.

Figure 3.1 Total Value of Construction Orders (KRW in Billions)



Source : Bank of Korea (http://ecos.bok.kr)

3.1.3 The Rise of Real Estate Developer : After "IMF Period" in 1997-98

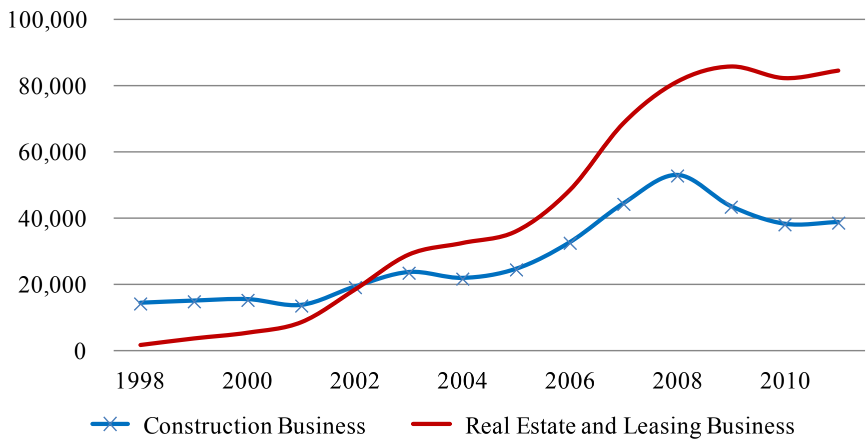
With the onset of economic, financial and regulatory reforms during

[6] For Samsung Construction, the debt-to-equity ratio reached 992% in 1987 (recited from Bello and Rosenfeld, 1990).

the so-called “IMF period” of 1997-98, however, the real estate development industry was subjected to a massive structural overhaul. The most notable changes were made in two primary domains. The first concerns the once-exclusive purview of players dominating Korea’s real estate development sector. Before the economic crisis, most real estate development projects were under the dominion of *chaebol*-owned construction companies. Previously, the business scope of these few family-owned and operated conglomerates encompassed the full range of all development activities, from land acquisition, design, and construction to marketing and sales. However, with the break of financial crisis, heavy financial burden of high debt-to-equity ratio as well as sharp decline in sales of real estate properties have resulted in insolvencies of great number of construction companies. In 1998, the number of construction companies that went bankrupt peaked at an unprecedented high of 2,103.

A bitter lesson learnt during this period of 1997-98, the major *chaebol*-owned construction companies started to restructure their operations in limiting their business scope to their core business, construction. In turn, seeing vast opportunities foregone by construction companies, in early 2000s, amid housing boom, a great number of small real estate developers emerged in the industry. These developers were diverse in their professional backgrounds such as architecture, civil engineering, urban planning, business management and so forth. They particularly focused on developments of officetel and mixed-use residential projects, whose product-type were not under strict regulatory control as on the ordinary apartment units. By 2001, separation of development and construction laid its foundation as way of development in Korea (Donga Ilbo, 12/27/01). As exhibited in Figure 3.2, year 2002 marks the diminished lending amount to companies in the construction business as compared to those of real estate business.

Figure 3.2 Annual Deposit Bank Lending in Construction Business vs. Real Estate and Leasing Business (KRW in Billion)

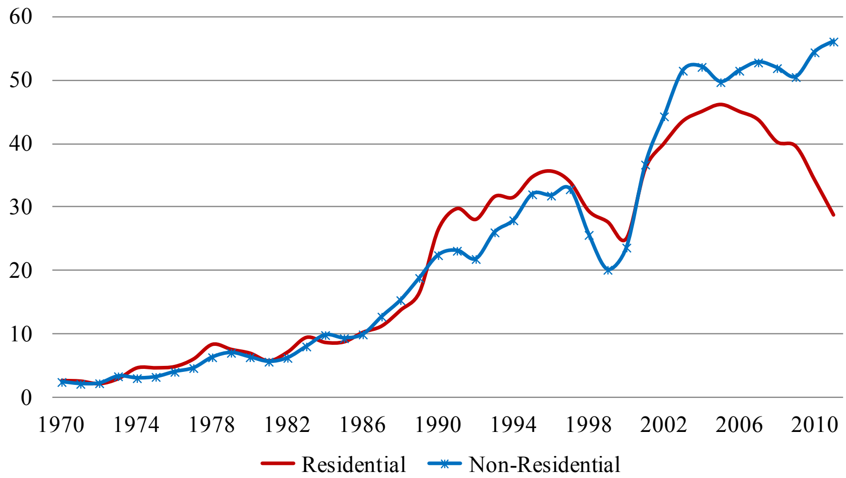


Source : Bank of Korea (http://ecos.bok.or.kr)

The second concerns changes in financing method of real estate development projects. Before the financial crisis, the funds for development costs were raised against the corporate credit of construction companies. That is, regardless of the profitability of the given project itself, credit was offered based on the real estate holding as the collateral. However, having suffered from the crisis, the financial institutions became more selective in their lending. With great demands for financing technique which lends against the cashflow of the project, project financing was introduced in real estate. Such financing technique enabled real estate developers to raise capital for development projects as long as the project was feasible and have 3rd party credit support. That is, it did not necessarily require developers themselves to have relevant financial strength. Before 2000, project financing market was mainly formed around SOC projects. By 2002, project financing began to be widely used in real estate development projects when commercial banks started to use this technique more actively.

To note, with the turn of the century, large-scale mixed-use development with the employment of project financing has become a dominant development scheme in lieu of large-scale housing development in Korea's development industry. More specifically, with the amendment of Housing Site Development Promotion Act in 2001, the government took an active initiative to promote public-private partnership in undertaking large-scale mixed-use development projects. A consortium of private partners is selected through public competition and funds for development costs are raised through project financing. There are other large-scale mixed-use development projects promoted by the government by outright sale of publicly held land to private developers for development, such as in the Free Economic Zone, for example. In fact, as can be evidenced in Figure 3.3, the investment amount in building constructions of non-residential to residential has exceeded since the entering of 2000s.

Figure 3.3 Investment Amount in Building Construction, Residential vs. Non-Residential (KRW in Trillion)



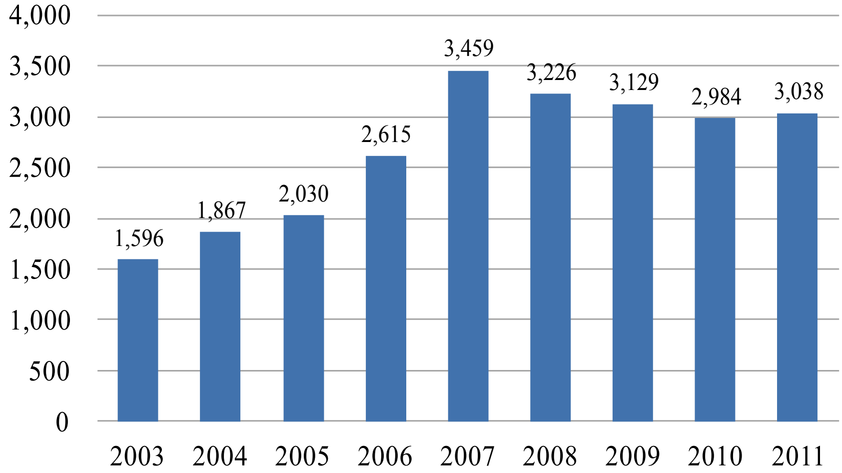
Source : Korea Statistical Office (http://www.kosis.kr)

3.2 Overview of Korea's Real Estate Development Industry

3.2.1 Overview of the Development Industry

According to Korea Statistical Office, the total value of real estate assets, including land and residential and non-residential buildings amounts to KRW 5,431 trillion, as of 2010 year-end. This total value in real estate assets constitutes almost 70% of Korea's total national wealth. Under the Standard Industry Classification System of Statistics of Korea, real estate development business is classified as "Business in Real Estate Development and Supply". This is defined as business activities which include the sale of land developments of agriculture, residential, industrial-use and of buildings which have been constructed through 3rd party contract. Resale of real estate which are not leased or operated is included as well. As shown in Figure 3.4, during the period of 2003 to 2007, the number of establishments in business of real estate development and supply has more than doubled, from 1,596 to 3,459 establishments.

Figure 3.4 Number of Establishments of Real Estate Development and Supply Business



Source : Korea Statistical Office (http://www.kosis.kr)

Notably, there has been a sharp increase from years 2005 to 2007. After the number of establishments has peaked in 2007 to 3,459, it started to decrease after the global financial crisis in 2008. As of 2011, it is down to 3,038 establishments**.** Table 3.2 exhibits that more than half of establishments are engaged in residential development and supply activities.

Table 3.2 Status of Real Estate Development and Supply Business in 2010

Classification	No. of Establish-ments	No. of Employees	Revenue (KRW in BN)
Real Estate and Leasing Business	126,081	440,556	64,306
Real Estate Business	113,154	395,956	59,462
Real Estate Leasing & Supply	10,409	59,318	41,511
Leasing	7,425	31,551	5,057
Development & Supply	2,984	27,767	36,453
Residential	1,441	11,346	21,026
Non-residential	569	3,807	4,189
Other	974	12,614	11,238
Real Estate-Related Service	102,745	336,638	17,952
Leasing Business (excld. real estate)	12,927	44,600	4,844

Source : Korea Statistical Office (http://www.kosis.kr)

Meanwhile, as of 2011 year-end, the total number of establishments registered for “Real Estate Development Business” in accordance with Management and Promotion of Real Estate Development Business Act[7]

[7] In 2007, to set a minimum bar to barriers of entry in real estate development industry, “Management and Promotion of Real Estate Development Business Act” was passed. In accordance with this Act, effective from November 18, 2007, firms or individuals who are involved in real estate development have to register for real estate development business. Prior to this Act, anyone could establish a company with equity of as low as KRW 50 million and be involved in real estate development activities. However, with the passage of this Act, a firm building more than 2,000m^2 in GFA of retail, office, condominium spaces, etc. or supplying more than 3,000m^2 of land developments to 3rd party is required to have an equity of more than KRW 0.5 billion (for individual, more than KRW 1.0 billion of assets for business

reached 2001 (Table 3.3). This includes all firms already involved in or is planning to involve in real estate developments, including but not limited to development firms, construction companies, pension funds, commercial banks, etc. In Seoul and Gyeonggi Province alone, there are 1,258 establishments, comprising almost 63% of the total number of establishments registered nationwide.

Table 3.3 Number of Establishments Registered for "Real Estate Development Business" in 2011

Category	Existing & New Registration (A)	Relocation from Other City (B)	Closure of Business (C)	Cancellation of Registration (D)	Relocation to Other City (E)	Total (F=A+B -C-D-E)	% of Total
Seoul	647	1	8	0	0	640	32.0%
Pusan	122	0	1	0	0	121	6.0%
Daegu	37	0	0	0	0	37	1.8%
Incheon	105	1	1	2	0	103	5.1%
Gwangju	17	0	1	1	0	15	0.7%
Daejeon	59	0	0	0	0	59	2.9%
Ulsan	22	0	1	0	0	21	1.0%
Gyeonggi	631	0	10	0	3	618	30.9%
Gwangwon	39	0	0	0	0	39	1.9%
Chungbuk	49	0	2	0	0	47	2.3%
Chungnam	79	0	2	0	0	77	3.8%
Jeonbuk	34	0	0	0	0	34	1.7%
Jeonnam	32	0	1	0	0	31	1.5%
Gyeongbu	24	0	0	0	0	24	1.2%
Gyeongna	121	1	1	0	0	121	6.0%
Jeiju	14	0	0	0	0	14	0.7%
All	2032	3	28	3	3	2001	100.0%

Source : Ministry of Land, Transport and Maritime Affairs (http://www.mltm.go.kr)

Among these, as shown in Table 3.4, more than 82 percent and 93 percent of establishments in Seoul and Gyeonggi area, respectively, have

operation). Moreover, the firm needs to have more than two real estate development professionals and an office of more than $33m^2$ in its net useable area.

equity of less than KRW 10 billion. To note, those that have less than KRW 1 billion in equity comprises more than half of all firms registered for real estate development business within the Seoul area. Moreover, almost all establishments with equity in excess of KRW 10 billion are firms whose core business is not in development but in other activities. These include construction companies, commercial banks, pension funds and such. This suggests that great majority of Korea's development firms do not have the net worth to undertake a large-scale, capital-intensive development projects.

Table 3.4 Equity Size of Establishments Registered for Real Estate Development Business in Seoul and Gyeonggi Area (as of Dec. 2009)

	Seoul		Gyeonggi	
Equity	% of Total	Cumulative	% of Total	Cumulative
~1BN	56.0%	56.0%	66.0%	66.0%
~5BN	21.3%	77.3%	24.6%	90.6%
~ 10BN	5.5%	82.7%	2.6%	93.2%
~ 50BN	7.9%	90.7%	4.1%	97.3%
~100BN	3.2%	93.8%	1.0%	98.3%
100BN~	6.2%	100.0%	1.7%	100.0%

Source : Raw data from Ministry of Land, Transport and Maritime Affairs (http://www.mltm.go.kr)

3.2.2 Development Parties

The main development parties of current real estate developments in Korea can be categorized into real estate developers, construction companies, operating companies, existing landowners and public entities. Real estate developers in Korea are in great part, small, financially-weak and transient. In fact, there are only very few who are relatively active and have a number of track record of real estate development undertakings.

However, even those very few who are considered to be professional developers in Korea are yet considerably financially-weak. This is highlighted in Table 3.5. Since Korean developers are weak in its financial strength, there is a large popularity of pre-sellable projects since they are almost *self-financeable* with only small amount of debt required to cover the cash shortfall during the construction period. Moreover, to evade from the strict regulatory constraints, the projects that Korea's real estate developers commonly undertake are, in large part, pre-sellable properties such as officetel, mixed-use residential and retail. According to a newspaper article, Money Today, dated March 2, 2005, the number of real estate developer increased in great proportion with increase in popularity of mixed-use residential since 2002.

Table 3.5 Financial Status of Some Major Real Estate Developers in Korea

(unit : KRW in Million)

Company Name	Total Asset	Equity	Revenue	Net Profit
Prime Development	866,137	50,897	67,809	-53,554
Cheongwon Construction	265,380	1,600	43,672	-79,501
Shinyoung	239,904	10,000	296,121	5,959
Dosi Saram	231,813	6,006	25,751	-645

* Note : Financial Status as of December 31, 2012.
** Source : Financial Supervisory Service (http://www.fss.or.kr)

Construction companies engage in development for the main objective of securing construction work within the given project. In general, they participate in large-scale, mixed-used development projects typically in two forms. One is a joint venture between international developer and domestic construction company and two is public corporation and consortium of private companies including construction companies, financial institutions, etc. In respect to the former arrangement, the domestic construction company engages an international developer to leverage on his or her *international* experience and expertise in real estate development, particularly on design of the overall masterplan, marketing which includes attracting foreign investors, etc. In respect to the latter, the public corporation is in charge of land supply and the private sector is in charge of financing, physical construction and such. In many cases, the major construction company in the consortium of investors jointly plays the role of a developer with the public corporation. This will be discussed more in detail later in this Chapter.

There are others such as operating companies who function as developer for the purpose of utilizing their corporate real estate. Namely, there are hotel and retail operators who acquire land, develop hotel and retail space and operate as their main business operation. There are existing landowners, especially big private corporations who also play a role as developer, making use of their underserved land for better income

Table 3.6 Different Development Entities of Recent Development Projects

Development Entity	Development Project	Development Type
Real Estate Developer	· Sommerset Serviced Residence · Royal Palace · G-Well City · Westerndome	· Serviced Residence · Mixed-use residential · Mixed-use · Retail
Construction Company	· New Songdo Int'l City · Songdo Landmark City · Pangyo Alphadome	· Mixed-use · Mixed-use · Mixed-use
Operating Company	· Kimpo Lotte Mall · Pusan Shinsegae Centum City	· Retail · Retail
Existing Landowner (Private Companies)	· Times Square · D Cube City	· Mixed-use · Mixed-use
Public Corporation	· Yongsan Int'l Business District · Pangyo Alphadome	· Mixed-use · Mixed-use

generation. Moreover, there are public entities who usually partner with the private sector in the form of public-private partnership to execute large-scale, mixed-use development for publicly-held land. Some of the selected projects undertaken by different entities are outlined in Table 3.6 in the previous page.

3.2.3 Sources of Financing

① Equity

Equity partners or equity investors in Korea's large-scale real estate development projects can typically be categorized into three types. That is, one, financial investor(FI), two, construction investor(CI), and three, strategic investor(SI). Financial investors include commercial bank, insurance company, pension fund, real estate fund, etc. who seek financial return on investment as well as opportunity to arrange debt financing for the project itself or buyers of completed properties. Construction investors are construction companies who participate as equity investors typically with an objective of securing contract for construction work of the given project. Strategic investors typically include operating companies of hotel or retail properties, Hotel Shilla or Lotte Department Store, for example, whose objective is to expand their main business into the given site. Different equity participants of the project consortium are shown in Table 3.7.

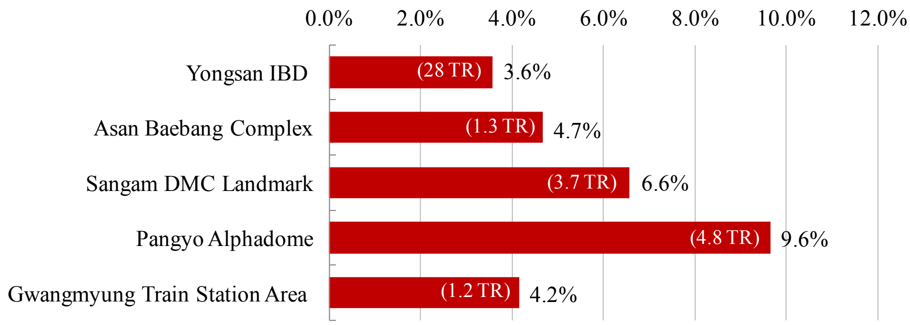
The equity injected in percentage of total cost is highlighted in Figure 3.5. The equity portion of development projects is comparatively very small as the figure shows. Customarily, the developer and equity partners inject very minimal amount of equity, less than 10 percent of the total land cost which is approximately 3 to 5 percent of the total development cost

Table 3.7 Participants of Selected Project Consortium

Project Name	Public Institution	Financial Institution (FI)	Construction Company (CI)	Other (SI)
· Yongsan IBD	29.90%	23.65%	26.45%	20.00%
· Asan Baebang Complex	19.90%	32.00%	38.60%	9.50%
· Sangam DMC Landmark	-	30.00%	31.00%	39.00%
· Pangyo Alphadome	19.00%	32.00%	33.50%	15.50%

(Koramco, 2010). Equity investments in real estate development projects are not yet prevalent in Korea. Instead, institutional investors such as pension funds and insurance company and real estate fund are more focused on asset-level investing than on development projects. To note, the outstanding balance of investment amount made by National Pension Fund (NPS) in Korean real estate is KRW 3.16 trillion in total as of 2011 year-end. However, less than 4 percent have invested in rental housings and real estate development projects.

Figure 3.5 Equity Amount as a Percentage of Total Cost



Note : Numbers in parenthesis are total development cost of the given project.

② **Debt**

In Korea, there are two stages in debt financing, financing for land acquisition and construction financing. There is yet no long-term, permanent financing available which takes out the construction loan when the property is ready to generate operating cashflow. Typically, debt financing for land cost is carried out by short-term bridge-loan, in many cases by financial institutions such as savings bank. For construction financing, after experiencing financial crisis in 1997-98, project financing has gained a wide acceptance and popularity among Korea's financial institutions since 2002 which lends against the cashflow of the given project (B. K. Shin, 2005).

In respect to types of project financing, generally there are loan, asset-backed securities (ABS), asset back commercial paper (ABCP) and real estate fund (REF). At present, as of March 2011, the size of PF loan outstanding is exceeds that of PF ABS and ABCP combined (Table 3.8). Of the total PF loan outstanding, bank, savings bank and insurance company account for 72.4%, 13.9% and 10.1%, respectively. However, as can be evidenced from the Table 3.9, PF loan has continued to decrease from June 2009 whereas PF ABCP increased, in contrast. To note, PF ABCP is short in maturity, typically less than a year.

The Figure 3.6 exhibits the basic structure of project finance for real estate development projects in Korea. Typically, a project company or a special purpose entity[8] is established in the form of a limited liability company with equity injections made by developer and equity partners. Forming an entity for single purpose insulates the sponsors from any

[8] Various names are given to the Project Company by different societies, though the functions are similar: US: Special Purpose Entity (SPE), UK: Special Purpose Vehicle (SPV), Korea: Special Purpose Company (SPC) (Koramco, 2010).

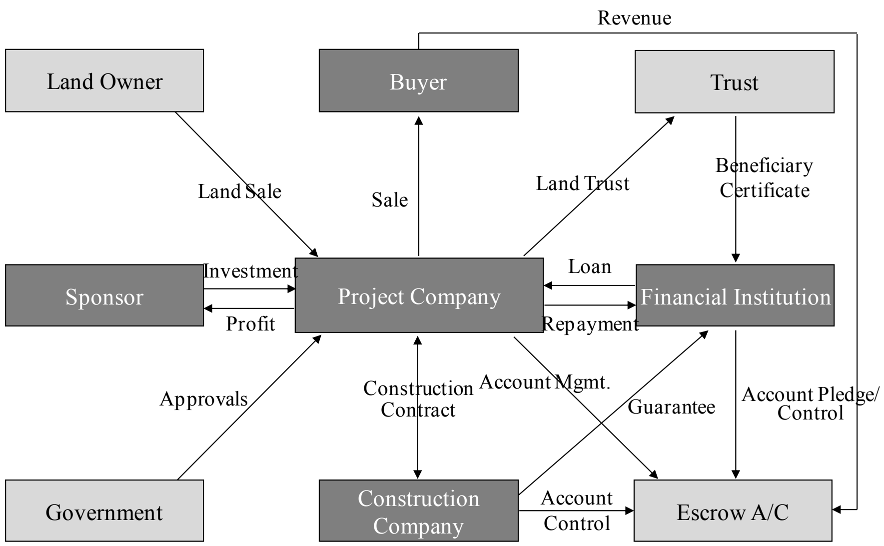
Table 3.8 PF Loan and PF ABS/ABCP Outstanding (4Q.2008-1Q.2011)

(unit : KRW in Trillion)

Category	Dec. 2008	Jun. 2009	Dec. 2009	Jun. 2010	Dec. 2010	Mar. 2011
PF Loan Total	72.4	73.4	71.2	64.7	58.0	50.4
Bank	52.5	54.1	51.0	44.9	38.7	36.5
Savings Bank	11.5	11.0	11.8	11.9	12.2	7.0
Insurance	5.5	5.5	5.7	5.4	4.9	5.1
Securities Company	2.9	2.8	2.7	2.5	2.2	1.8
PF Securities Total	16.9	15.5	20.7	22.6	25.6	23.3
ABS	2.2	1.9	4.1	3.5	3.8	3.1
ABCP	14.7	13.6	16.6	19.1	21.8	20.2

Source : Financial Supervisory Services (http://www.fss.or.kr)

Figure 3.6 Typical Project Financing Loan Structure



Source : Recited from lecture notes by Y. B. Lim

liability[9] and the project company becomes the contractual party for land

[9] Assets and cashflow of the given project are segregated from other sponsor's

acquisition, financing, public approvals. The developer and the equity partners are known as the *sponsors* of the project, the actual moving party in the given project. Debt is financed by the project company based on the cashflow of the project. From the revenue generated thru sale of developed property, or to be more exact, from the free cashflow, the interest and principal amount is repaid to the lenders and dividends are paid out to the sponsors.

In such lending however, Korean financial institutions, due to their lack of experience in assessing risk, require credit enhancement of the 3rd party, usually by financially strong construction companies in the form of some guarantee, namely, payment guarantee, debt takeover, presale guarantee and/or completion guarantee.[10] Though details and level of enforcement vary depending upon the guarantee provided, it essentially guarantees the lender that debt obligations will be satisfied even if the project company is in default. Outlined in Table 3.9 is a typical security package of project financing in Korea. Security package is the various protection systems for the benefit of the lender in case the project company defaults on the loan. Most of financing deal in Korean development projects includes a combination of most these items listed.

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activities and therefore, the financial exposure of the sponsors is project-specific.

10 Payment guarantee is a guarantee to pay the interest and the principal amount on behalf of the project company when the project company cannot fulfill its debt service obligations; Debt takeover is a guarantee to undertake the debt obligations of the project company in the case of project company's event of default; Presale guarantee is a guarantee to take responsibilities of certain percentage of presale revenue so that the project will generate enough revenue to make debt service obligation; Completion guarantee is a guarantee to complete the construction under the construction contract even in a case where the project company cannot not payout the construction expense.

Table 3.9 Security Package in Project Financing

Category	Responsible Party	Description
Mortgage on Real Estate	Project Company (Borrower)	· Mortgage is an agreement between the property owner, the Project Company and the Lender. It specifies that some property will be taken and sold by the Lender for the purpose of satisfying the terms of the loan if the borrower fails to abide by the terms for the repayment of the loan.
Pledge on the Escrow Account		· Escrow account is a bank account which the bank has control over until the obligations of the borrower are fully met. Lenders monitors the project's performance and restricts the use of cash flow thru this escrow account. Any withdrawals of cash from the account need to be approved by the Lender.
Assignment of Rights & Benefits of All Material Contracts and Rights of Insurance		· The rights and benefits of all material contracts and rights of insurance are assigned to the Lender so that in case the borrower is in default, Lender could hire a 3rd party to continue with the development, and thus be able redeem loan amount.
Maintenance of Debt Service Reserve Account		· The Project Company is to maintain a debt service reserve account. That is, the Company needs to always maintain some months, six-month for example, of interest amount in the account. The level of amount is determined upon negotiation.
Cash Deficiency Support	Sponsor	· This a guarantee that requires the Project Sponsor(s) to contribute additional capital to the Project Company in the event of cash deficiencies. This can be injected as equity or mezzanine capital.
Pledge on the Shares of the Unitholders		· The Lenders have pledge on the shares of the Unitholders - here, the unitholders are the Sponsors.
Payment Guarantee/ Completion Guarantee/ Etc.	Construction Company	· The guarantee provides the Lender the assurance that the project will continue debt service or will generate enough cash to meet debt service obligation, etc. depending on the types of guarantee which differ in its obligations and its level of enforcement in case of default by the Project Company.

Waiver Consent on Shikong-kwon & Yuchi-kwon	· Waiver of shikong-kwon : When the Lender wants to replace the construction company during the construction period under certain circumstances, the construction company will waive its rights and benefits under the construction contract. · Waiver of yuchi-kwon : Construction company will not occupy partially or fully constructed building(s) even if the company is not compensated with all of its rights and benefits under the construction contract.

③ Presale Revenue

Revenue from presale is another component of financing structure. This presale system is one of the reasons that make financing structure of Korea's real estate development project unique that differs from that of other advanced countries such as the United States (J. S. Son and H. S. Suh, 2006). Under a presale contract, the buyer purchases the property at a pre-determined price and pre-agreed payment schedule with certain percentage of the property price placed as down payment. Upon completion of the project, the buyer makes final payment and the developer delivers the property. Under this system, developers are able to sell properties such as residential units, retail spaces, officetel units, etc. well before their completion. Typically, buyers of residential units pay 10 to 20 percent of total price at the start of construction, 60 percent during construction at few months' interval and the rest, at completion of the project. From developer's perspective, this is an easy and a cheap way to raise funds for development projects. Furthermore, the system provides a hedge against a financial loss, transferring the development risk to the buyers (S. Chan et al., 2008). In summary, pre-sellable properties can be *almost* self-financed where construction costs are in great part covered by presale proceeds. As such, funds needed to cover for the cost are limited to acquisition of land and periodic cash shortfall during the construction period.

3.3 Main Characteristics and Issues of Korea's Real Estate Development Industry

3.3.1 Main Characteristics of Korea's Development Industry

There are two(2) main characteristics that demonstrate an inactive presence of real estate development industry in Korea. One, Korea's real estate development industry is dominated by construction companies where real estate developer plays a peripheral role in development. Two, there is an underdevelopment of long-term financing. In actual, these two characteristics are very much inter-related.

① Domination of Big Construction Companies

Construction companies have a great presence in Korea's real estate development industry. Not only do they play a role as a contractor, but with strong financial strength, they provide credit support as required by the lender in extending credit and they predominate in decision-making process of development activities. As can be seen in Table 3.10, major construction companies in Korea have superior credit standing and are affiliates of *chaebol* or conglomerate group. The Table lists top 10 construction companies among the nation's 10,540 construction companies in the order of construction capacity ranking released by Ministry of Land, Transport, and Maritime Affairs on July 30, 2012. All top ten(10) companies have total assets in excess of KRW 4 trillion and half of them have assets in excess of KRW 10 trillion. Due to such strong financial strength as well as credit standing of many construction companies in

Table 3.10 Financial Status of Construction Companies by Construction Capacity Ranking in 2012

(unit : KRW in Billion)

Rank[1)]	Name of Company	Total Asset	Equity	Conglomerate Group /Total Asset (Rank[2)])
1	Hyundai E&C	11,872	557	Hyundai Motors / 154,659 (4)
2	Samsung C&T	20,922	804	Samsung / 255,704 (1)
3	Daewoo E&C	9,469	2,078	Daewoo E&C / 10,853 (33)
4	GS E&C	11,099	255	GS / 51,388 (10)
5	Posco E&C	7,834	184	Posco / 80, 618 (8)
6	Daelim Industrial	9,545	219	Daelim / 14,761 (27)
7	Lotte E&C	5,754	190	Lotte / 77,349 (7)
8	Hyundai Dev. Company	6,736	377	Hyundai Dev. Company / 7,470 (48)
9	SK E&C	4,186	194	SK / 97,042 (5)
10	Doosan Heavy Industries & Construction	13,589	529	Doosan / 26,968 (15)

* Note 1) Construction Association of Korea ranks construction company by construction capacity through comprehensive evaluation of previous year's construction performance, financial status, engineering expertise, credit standing, etc.
2) Korea Fair Trade Commission ranks conglomerate group as well as public corporations by total asset.

** Source : Ministry of Land, Transport & Maritime Affairs (http://www.mltm.go.kr), Korea Fair Trade Commission (http://www.ftc.go.kr)

Korea, for lenders, requiring these companies to provide credit support the loan by the borrower, the project company. The construction company essentially guarantees the lender that debt obligations of the borrower will be satisfied. At the same time, by providing the necessary guarantee, the construction company is awarded with construction contract. In effect, the project risk is transferred to the construction company. For the borrower, or more specifically the sponsors of the project company, it provides better access to raising funds from debt financing, and at comparatively lower cost. For construction company, it secures construction contract.

To note, Table 3.11 exhibits the different entities that have provide guarantees for PF ABS and ABCP during the period of 2006 to 2011. As can be evidenced from the Table, from 2006 to 2008, construction companies account for more than 90 percent of all guarantees provided for PF ABS and ABCP. After 2009, guarantee provided by local government and public corporation have increased, though that of construction company still account for more than 80 percent of the total. With provision of guarantee, the project risk is, in essence, transferred and allocated to the construction company. In effect, construction company becomes the actual responsible party for the risk and success of the project. One of the most common ways that construction company manages and controls such risk is to dominate the process of development activities. Either people from the construction company is dispatched to the development company to

Table 3.11 Percentage of Issuance of PF ABS/ ABCP by Different Credit Enhancement Institutions[11]

Category	2006	2007	2008	2009	2010	2011
Construction Company	93.1%	94.6%	99.0%	83.8%	82.0%	84.6%
Non-Construction Company	0.0%	0.9%	0.4%	2.2%	2.1%	1.8%
Local Gov't / Public Corp.	0.4%	0.0%	0.0%	6.3%	11.4%	10.4%
Financial Institution	3.8%	4.5%	0.3%	0.7%	0.4%	1.5%
Other	-	-	-	7.0%	3.6%	0.8%
No Guarantee	2.7%	0.0%	0.3%	-	0.5%	0.9%

Source: Korea Investors Service (2012)

[11] If there are several entities providing guarantee for the same loan, the entity with greater amount of guarantee is counted.

jointly work for the project or the development company plays a role in securing land and construction company oversee the rest of the process from design, construction to marketing and sales.

In particular, in large-scale mixed-use development projects, big construction companies of *chaebol* group, in most cases, become the leading party of the consortium of investors. This can be evidenced in Table 3.12. The consortium relies on big construction company due to their financial strength and credit as well as organization that can support development activities. At the same time, the company participates in the consortium to secure construction contract as well as take on the leading role in development to be able to directly manage the associated risk with provision of the guarantee.

Table 3.12 Selected Large-scale Mixed-use Development Projects Announced for Public Competition

Project Name	Client	Leading Company (at inception)
· Sangam DMC Landmark Tower	City of Seoul	Daewoo E&C
· Daejeon Expo Smart City	LH Corporation	Daewoo E&C
· Alphadome City	LH Corporation	Lotte E&C
· Chung-la IBD	LH Corporation	Posco E&C
· Asan-baebang Mixed-use Complex	LH Corporation	SK E&C
· Paju-Unjeong Mixed-use Complex	LH Corporation	SK E&C
· Yongsan IBD	Korail	Samsung C&T
· Eunpyung New Town	SH Corporation	Hyundai E&C
· Hanryuwood	Gyeonggi-do	Prime Development

Source : Construction Association of Korea (2012)

② Inactive Presence of Long-term Financing

In Korea, there is inactive presence of long-term financial investors, both in equity and debt form, who are willing to take the appropriate risk for the expected return. In fact, due to deep rooted financing practice of collateral-based, short-term lending that became prevalent before the introduction of project financing in Korea, the investors are yet inexperienced in the risk assessment as well as designing a risk mitigation method. In Korea, there is a weak concept of *investment* in real estate development. Therefore, investing or lending against the cashflow of presale proceeds as well as guarantee from the construction company became methods of risk mitigation for financial institutions.

To note, according to the Financial Development Report 2012 (World Economic Forum, 2012), which provides Financial Development Index ranking 62 of the world's leading financial systems, Korea ranked 15th in 2012. Hong Kong recorded first in rank, US, UK, and Singapore, 2nd, 3rd and 4th in rank, respectively. However, in respect to commercial accessibility to capital, one of the pillars of the index, Korea ranked 58th out of 62 countries. This provides a reference that even by international comparison, access to venture capital, commercial loans and local equity markets in Korea is very much limited.

Due to inaccessibility to long-term capital, developers rely heavily on presale proceeds and funds from short-term debt financing. Therefore, there has been a popularity of the comparatively more secure and profitable exit strategy of 'develop and sell,' as opposed to the preferable and long-term goal to 'develop and operate'. In particular, real estate development in Korea has long been considered as attaining return from capital appreciation and instead of operating income. Moreover, pre-sellable projects are particularly favored by small, financially-weak developers because they are almost *self-financeable* with only small amount of debt required to cover the cash shortfall during the construction period. Though not pertained to Korea only, such development with "other people's money" without meaningful amount of equity commitment and pursuit of "eat and run" type of short-term profit gain have contributed to the formation of negative image of real estate developer and the development activity itself. Some of the main controversies are whether real estate development is a breeding ground of speculation, whether real estate development is an act of fraud and real estate developer a villain, whether it is a business that can reap a fortune without professional knowledge or expertise, to name a few.

3.3.2 Issues in Current Development Undertakings

As has been illustrated in Chapter 2, real estate development is an entrepreneurial process of creating value of real property. Real estate developers are entrepreneurs who are willing to take risk for the upside potential. Developers with their professional knowledge and expertise, take control of the entire process of development from coming up with development idea, securing site, raising funds for the development cost, obtaining public approvals, etc. In large-scale development projects, typically, developer finds equity partner(s) who will contribute sizable amount of capital with the expectation of receiving financial return. In a more mature development industry as in the United States, one of the most important criteria of evaluation for financing is the experience and the credit of the developer (A. Bayster, 2005). The equity partner as well as the lender needs assurance that the developer has the necessary financial strength and experience to be able to successfully lead and complete the project. At the same time, they need assurance that the developer will not walk away from the project. In Korea, associated with the characteristics of her development industry described in the previous section, there are two major issues in the current development undertakings. This pertains particularly to large-scale, mixed-use development projects.

① Non-Presence of the *Control Tower*

This problem is particularly relevant to today's large-scaled, project financing projects that are initiated by the public sector. Taking account of the project scale whose total development cost ranges from few hundreds of billions to few tens of trillion Korean won, such projects are undertaken by a consortium of private investors that consist of financial investors ("FIs"), construction investors("CIs"), and strategic investor ("SIs") and the public entity. As has been described in section 3.2, these investors participate in such development project with different interests other than *just* development profit. The number of investors in the consortium typically ranges from ten to twenty investors or more[12] with the total equity investment of less than 10 percent of development cost. The leading development party is, in most cases, the big, major construction company with its financial strength and the necessary organization that can support development activities.

However, such domination of construction company in large-scale development projects pose problems for equity partners as well as lenders. In general, a developer's main responsibility, leveraging on his or her professional knowledge and expertise, is to maximize development profit by maximizing revenue from value-creation process and at the same time minimizing cost. However, in such arrangement where the construction company is the leading company exerting powerful influence in the development activity, the equity partners and lenders alike are concerned whether he or she would work on their best interests. There is a conflict between being an *investor* and at the same time a *contractor*. That is, for construction company, there is conflicts over maximizing profit through mark-up in construction cost versus minimizing such cost for development

[12] For example, Sangam DMC Landmark Tower, twenty-five equity partners; Yongsan International Business District, thirty equity partners.

profit. In fact, this conflict pertains to any other company leading the development activity as well. Since FIs, CIs, and SIs all have different objectives of participating in the project other than achieving development profit, there exist conflicts over their own main interest and those of other equity partners.

Currently, there is an absence of an experienced, professional developer who takes control of all processes of development and at the same time work at the best interest of equity partners and lenders. The consequences of such non-presence of the *control tower* in large-scale development project are well evidenced in the very recent troubles in Yongsan International Business District, a single largest development project in Korea's history. Thirty equity partners formed a consortium to undertake the project in late 2007 which include the two(2) public entities, Korail and SH Corporation, five(5) FIs, six(6) SIs and seventeen(17) CIs. The entity which undertakes the actual development is the Asset Management Company ("AMC"), with Korail, the state-run rail operator and greatest shareholder in the project and Lotte Tourism and Development, the second largest shareholder. At the inception of the project, Samsung C&T was part of the AMC, but was ousted by Korail after refusing to provide payment guarantee for financing in late 2010. With market slowdown after the global financial crisis in 2008 and the resulting financial problem in initiating the project up to speed, the equity partners started to question the capability of development party, Korail and Lotte Tourism and Development. In fact, Korail lacking any experience in development and Lotte Tourism and Development lacking financial strength, there was, in actual, no leading company to take control of the development. With such absence of experienced developer who can exert dominancy over development activities, and able to earn confidence and trust by the equity partners to commit additional capital, the project came to a complete stall.

② Obstacles in Achieving Value-Maximization

Typically, the developer would hold the developed property for certain period of operation, until the spaces are leased-up and cashflow has been stabilized. During the operating period, the developer obtains operating income and when the value of the property has reached its stabilization or maximization point, it is sold off to another investor willing to hold and operate[13]. As Pietro Doran, an ex-managing director at Gale International Korea, LLC who oversaw the development of New Songdo International Business District noted in his interview, real estate developer's role is crucial as the completed development is first point in delivery of the source of long-term income stream and taxes. That is, the improved, value-enhanced property becomes a stable asset ready to generate operating income to the property investors and related taxes to the government. The end-users of the property would better *consume* or *produce* in such space and would be willing to pay greater rent.

However, the current collateral-based, short-term lending inhibits such value maximization of development. Due to financial institutions' inability to assess long-term risk of development, they prefer short-term lending, typically no longer than three(3) years. Real estate development has not been yet fully perceived as *investment* based on the value creation process and income generating potentiality. Therefore, without the necessary capital from long-term financial investors both as equity and debt form, the developer has no choice but to choose an exit strategy of 'develop and sell' as opposed to 'develop and operate.' That is, due to

[13] "In any development project, maximum value is not achieved until the project is fully constructed and its operations stabilized, i.e. until the project is 90 percent to 95 percent leased and has been operating a pro forma economics for several consecutive months" (M. Kane, 2001).

short-term lending stream, the developer's exit strategy is essentially limited to presale of properties. As a result, in most of development projects in Korea, the properties are sold before the cashflows are stabilized and reach their maximum value with operation during the holding period. To note, however, there has been some progress in the recent mixed-use development projects, such as Times Square, D Cube City and IFC Mall which the developer choose to hold and operate with their strong financial backing.

Moreover, the current domination of construction companies in real estate activities inhibits the value maximization of development. Due to collateral-based lending, lenders require credit enhancement by the big construction company. However, these construction companies are in the business of *physical* construction and would provide the necessary guarantee required by the financial institution to an extent of securing profit from construction work. Inherently, they are not entrepreneurs or risk-takers. They are interested in maximizing more stable and reliable source of revenue, the "construction profit" than taking a risk of trying a new development idea for "development profit." In effect, their domination in development activities stifles entrepreneurship of a *true* developer. Summarily, the current absence of long-term financing as well as domination of construction in development activities obstructs value maximization process of development.

Chapter 4. Factor Characterizing Korea's Real Estate Development Industry

4.1 The Socio-Economic Background

4.1.1 State-Led Economic Development

The fundamental emergence of extensive real estate developments began with the country's intensifying efforts of high economic growth as well was her transition from rural to urban economy. By 1960, Korea was a poor, agricultural-based country, with her per capita income of US$ 79 and GDP of US$ 2.0 billion. Employment in agriculture sector accounted for 63.1 percent of the total and industry and services accounted for 11.1 percent and 25.6 percent, respectively.[14] The country suffered from extreme poverty, insufficient of daily food and necessities (T. J. Kwon, 2007). When President Park Chung Hee took over the power through coup d'etat in 1961, he was determined to overcome the country's poverty and propel economic growth. In 1962, the government declared its ambition to achieve industrialization through promoting new export and import-substitutions industries. By mid-1960s, the government decided upon "exports to be a priority activity for all firms" (M. Hart-Landsberg, 1993)[15].

With strong commitment of overcoming the country's economic underdevelopment, the government adopted state-led growth strategy

[14] Agriculture includes forestry and fishing; industry includes mining, manufacturing, public utilities and construction; services include other remaining sectors.

[15] With few natural resources but relatively abundant human capital, exports of labor-intensive products became a natural way of financing industrialization (S. H. Kim, 2007).

where she played a central role in structuring the economy and forging commercial growth. The government launched a series of Five-Year Economic Development Plan[16] which specified national objectives to be achieved in the next five years. In achieving such objectives, the government exerted dominantly centralized power by heavily intervening in the market economy and taking a decisive control over essentially all facets of economic activities. In particular, the government's intervention was in finance and land.

Control over finance was a powerful instrument in guiding and regulating private enterprise to reflect the social and economic priorities set by the governments themselves (D. Cole and Y. C. Park, 1983). Therefore, one of the first acts of President Park Chung Hee's administration in 1961 was to take control over the country's financial system.[17] The government set interest rate, credit ceiling and loan priorities as well as make decisions on the budget, salary, hiring and firing at each individual bank (M. Hart-Landsberg, 1993).[18] In particular, with government's focus on export-led industrialization, the government selected, at their own discretion, business groups to undertake such export activities while providing them preferential treatments in financing. As shown in Table 4.1, the interest rates offered to exporters were single-digit or double-digit lower than general interest rates. Moreover, such selected firms were rewarded with large access to credit and offered government's

[16] A total of seven(7) Plans were implemented during 1962 to 1996 : the First Plan (1962-66), the Second Plan (1967-71), the Third Plan (1972-76), the Fourth Plan(1977-1981), the Fifth Plan (1982-1986), the Sixth Plan (1987-91) and the Seventh Plan (1992-1996) .

[17] The government nationalized all major commercial banks which included all five nationwide commercial banks, all six special banks and two of the country's three major nonbank financial development institutions.

[18] Such government intervention in the financial market, placing artificial ceiling on interest rates and directly allocating credit among specific industry sector or specific firms at their own discretion was considered a textbook example exhibited by many developing countries (M. Noland, 1996).

backing of guarantee in foreign borrowing. In return, however, the firms had to conform to government policies and be responsive to government suggestions for renewal of their credit lines (D. Cole and Y. C. Park, 1983).

Table 4.1 Interest on Export Credit by Banks

Category	1961 -1965	1966 -1972	1973 -1981	1982 -1986	1987 -1991
Interest rate on export credit (A)	9.3	6.1	9.7	10	10-11
General interest rate (B)	18.2	23.2	17.3	10-11.5	10-13
(B-A)	8.9	17.1	7.6	0-1.5	0-2

Source: Recited from I. Sakong and Y. S. Koh (2010)

These selected firms became to grow and strengthen as family-owned conglomerate, commonly known as *chaebol*.[19] In fact, "the state-banks-*chaebol* nexus became the central feature of the Korean economic system" (J. S. Shin, and H. J. Chang, 2003). To note, such industrialization led by *chaebol* consequently resulted in high concentration of capital and economic power by limited number of these business groups. "According to Steinberg, in 1987 the revenues of the four largest *chaebol* were US$ 80.7 billion, a figure equivalent to two-thirds of Seoul's total GNP. In that year, the Samsung Group had revenues of US$ 24 billion; Hyundai, US$ 22.7 billion; Daewoo, US$ 16 billion; and Lucky-Goldstar, US$ 18 billion. The revenues of the next largest *chaebol*, Sunkyong, totaled US$ 7.3 billion in 1987. The top ten *chaebol* represented 40 percent of all bank credit in South Korea, 30 percent of value added in manufacturing, and approximately 66 percent of the value of all South Korean exports in

[19] "From the beginning, the Korean government felt that Korean firms could compete in the international market only if they were a certain minimum size. This view was reinforced when the government encouraged the development of heavy and chemical industries (HCI) in the 1970s to upgrade its export structure" (K. H. Kim and D. Leipziger, 1993).

1987" (http://www.countrystudies.us).

In achieving national goal of economic growth, all policies and plans were oriented towards industrialization and the country's territorial planning was of no exclusion. In fact, building industrial estate was an important part of government's export promotion policies and easy access and link to such complexes were of paramount matter. Therefore, intensive investments were made in expansions of physical infrastructure, including expressways, railroads, bridges and seaports. To note, public investments in infrastructure[20] accounted for almost one-third of Gross Domestic Investment in 1960s and 70s (K. H. Kim and D. Leipziger, 1993). Such infrastructures were considered as engines for the country's economy, facilitating the production and distribution of goods as well as international trade. Meanwhile, there was an increasing pace of urbanization concomitantly with industrialization. In coping with such high growth of rural-urban migrants, the government focused on large-scale urban development of housings and urban services. The government showed excessive focus on providing physical space and later has been ignominiously charged as "construction state[21]" (M. J. Choi and Y. J. Kim, 2012). The belief that development is *progress* was becoming a common knowledge (S. T. Hong, 2011).

To note, the government deployed planning body to guide and undertake country's economic activities.[22] Namely, the Ministry of

[20] This includes electricity, gas, water, transport and communications, road and waterway investments (K. H. Kim and D. Leipziger, 1993).

[21] "Gavan McCormack (1996) first used the term to describe the state who is preoccupied with construction of public infrastructure with the presence of collusive relationship between the construction company and the political parties. This has a negative connotation in that it involves dissipation of the citizens' taxes and destruction of the environment" (recited from M. J. Choi and Y. J. Kim, 2012).

[22] President Park Chung Hee relied heavily upon five(5) key government planning bodies; the Economic Planning Board, the president's Economic Secretariat; the Ministry of Trade and Industry; the Ministry of Finance; and the Ministry of Construction (M. Hart-Landsberg, 1993).

Construction was to take charge of national physical planning and the construction of all industrial estates, cites, highways and ports. Public corporations were also established to assume the role of execution on the behalf of the government. For example, Korea National Housing Corporation was established in 1962 to undertake housing supply, Korea Expressway Corporation in 1969 for expressway construction and operation and Korea Land Corporation in 1975 for land supply. Moreover, several numbers of state-owned enterprises were established by the government, particularly in sectors where initial capital requirement is large (K. H. Kim and D. Leipziger, 1993). In 1972, for example, twelve of the country's sixteen largest firms were state-owned, including Korea Electric Power Company (1962), Korea Petroleum Company (1962), Pohang Iron and Steel Company (1968), to name a few. For Korea, such establishment of public enterprise was needed since the private sector had only limited capital and management expertise when she started her economic development (K. H. Kim and D. Leipziger, 1993). The public sector as a whole grew more than three times in absolute size from 1963 to 1972 (M. Hart-Landsberg, 1993).

4.1.2 High Economic Growth and Rapid Urbanization

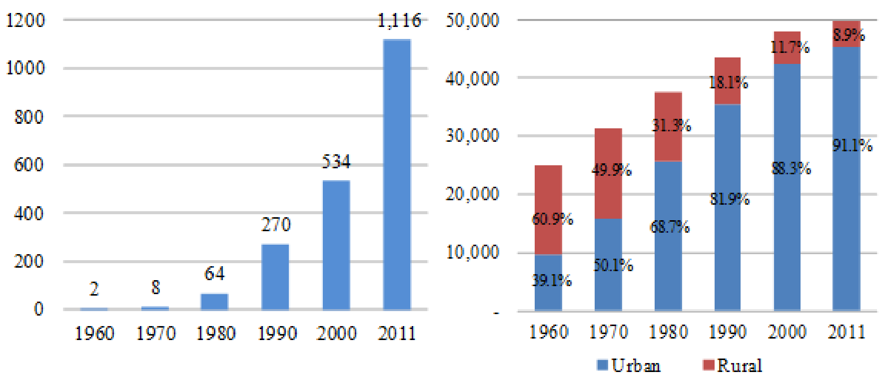
As a consequence of keen efforts made by the government, Korea experienced an impressive performance in her economic development. The strong centralized nature of the government is reckoned to have enabled such focus on export-led industrialization[23] which culminated into the "Miracle of Han River" (K. H. Kim and D. Leipziger, 1993; T. J. Kwon, 2007). More specifically, Korea experienced a rapid structural transformation where the employment in agriculture decreased from 63.1

[23] As a result of concerted efforts made by the government to promote export activities, exports of goods as a proportion of GDP rose from 3.4 percent in 1960 to 31.2 percent in 1980. This is more than nine-fold increase in just two decades.

percent to 17.9 percent in 1960 and 1990, respectively. Moreover, with rapid pace of industrialization, Korea achieved one of the world's fastest growths. In 1960 and 1970, GDP was US$ 2.0 billion and US$ 8.1 billion, respectively. However, in 1980, it reached US$ 63.8 billion and in 1990, US$ 270.3 billion. Today, Korea is one of the OECD countries with GDP of US$ 1,116.4 billion in 2011 (Figure 4.1).

Figure 4.1 GDP and Percentage of Urban and Rural Population

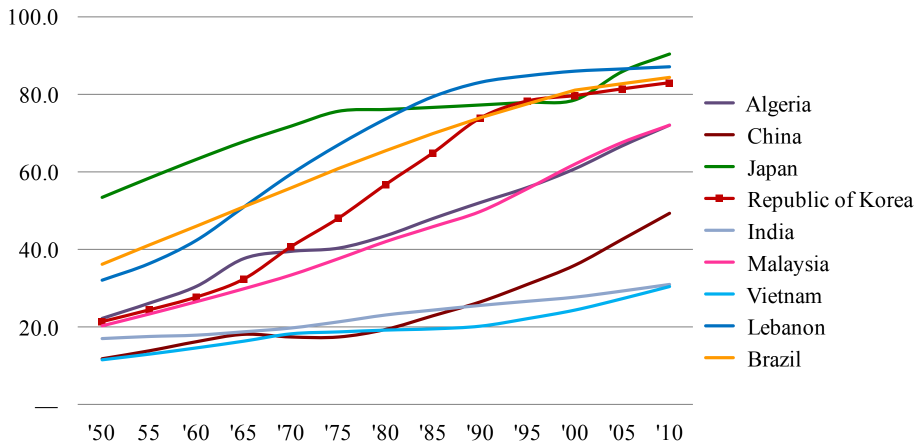
GDP (US$ in Billions) Urban and Rural Population (in '000s)



Source: Korea Statistical Office (http://www.kosis.kr)

Concomitantly with industrialization, people moved to urban areas searching for jobs, particularly to areas of newly established industrial complex. In 1948, only 17 percent of the nation's total population lived in urban areas. However, the urban population increased from 39 percent in 1960 to 68.7 percent and 81.9 percent in 1980 and 1990, respectively. This is also shown in Figure 4.1. In absolute figures, urban population increased from 9.76 million in 1960 to 25.74 million in 1980, which is a startling 16 million or 164 percent increase during a two-decade period. Notably, people moved to Seoul, the capital city of South Korea, almost frenetically, where the population increased from 2.45 million in 1960 to 5.53 million in 1970 and to 8.35 million in 1980. This meant each year, Seoul's population increased by approximately 300,000 persons. Even comparing amongst countries that have experienced one of the fastest urbanization in the world, the pace of urbanization in Korea evidently outstood others as highlighted in Figure 4.2 and Table 4.2. In particular, Korea experienced a

Figure 4.2 Percentage of Population Residing in Urban Areas, 1950-2010



Source : United Nations, Department of Economic and Social Affairs

Table 4.2 Average Annual Urban Growth Rate (%)

Countries	1950 -1960	1960 -1970	1970 -1980	1980 -1990	1990 -2000
Algeria	5.28	4.99	4.11	4.75	3.43
China	4.95	2.84	2.95	4.64	4.08
Japan	2.88	2.42	1.69	0.68	0.45
Rep. of Korea	5.27	6.11	5.07	4.01	1.43
India	2.36	3.10	3.90	3.22	2.67
Malaysia	5.57	5.20	4.66	4.44	4.70
Vietnam	4.52	4.64	2.35	2.68	3.45
Lebanon	5.59	5.96	3.40	1.74	2.73
Brazil	5.42	4.70	3.94	3.28	2.47

Source : United Nations, Department of Economic and Social Affairs marked progress in urbanization during the period of 1950 to 1990. In particular, during the decade of 1960s, urbanization rate increased in excess of 6 percent per year, on average.

4.2 Government's Heavy Intervention in Development

4.2.1 Government's Role in Land Supply

From 1940 to mid-1960s, there were almost no activities of construction other than reconstructions of the ruins from the Korean War. Housings and retail stores that were burnt in fire during the War were reconstructed spending little money (J. M. Son, 2003). However, with the launch of Five-Year Economic Development Plan in 1962 and the resulting expansion in the economy, the rural-urban migrants were increasing in rapid pace. In turn, the explosive urban population growth, along with the increasing economy fueled the need for development of housings and urban services which included roads, water supply, sewerage, etc. To cope with such rapid urbanization and at the same time to support economic growth, Korean government was determined to undertake extensive urban developments, more specifically, large-scale housing development projects within a short time frame.

In undertaking such development, land supply of urban use was a central issue. The government employed a rigid control on land supply where they estimated "the amount of land needed for residential, commercial, industrial development as well as infrastructure projects and ensures the exact amount of land that is required to be rezoned or developed" (UN-Habitat, 2008). In other words, instead of effectively responding to the market needs, the government, in accordance of the national housing supply plan, determined the total number of new housings to be produced and supplied such amount of residential-use land.

In addition to such regulations on land use conversion, the government actively engaged themselves in land assembly and wielded decisive control over supply of developable land. Generally, in free-market societies, a private real estate developer would "convert raw land into developed or subdivided land[24], platted[25] into individual homesites and commercial parcels ready for building" (R. Peiser and A. Frej, 2003). In Korea, however, this was not the case. The public entity took raw land and converted into urban use and serviced the plots or the subdivided land with infrastructure, including roads, drainage system, sewerage, and public utilities. Since land development is heavily dependent upon public approvals and infrastructure provision, the government's unmitigated foothold in such land development was expected to facilitate the process. In essence, the Korean government assumed the role of a land developer, supplying plots of developable land for subsequent building or the vertical development.

With Korean government exercising such dominant role in land development, beginning late-1960s, Seoul area was expanding through land reclamation which included East Ichon-dong in 1968, Apkujung in 1970, Bampo in 1970 and Jamsil in 1971[26]. The land size in these four(4) districts amounted to an excess of 4.4 million square meters. The completed landfill was purchased by the government and going through processes of land development, it was then sold to private developers for sale.[27] In respect to existing land whose extensive development started in

[24] "Subdivision of land is a legal and physical steps a developer takes to convert raw land into developed land" (R. Peiser and A. Frej, 2003).

[25] "Platting is an official procedure by which land is subdivided into smaller legal entities" (R. Peiser and A. Frej, 2003).

[26] The year represents the start of land reclamation.

[27] The construction of such land reclamation was undertaken by "selected" construct-ion companies such as Hyundai, Daelim, Kukdong, Sambu and Donga who have accumulated wealth by massive reconstructions and infrastructure expansions after Korean Liberalization and Korean War (J. M. Son, 2003).

mid-1960s, Korean government employed land readjustment method.[28] Such method was prevalent during the period of 1960s and 70s[29]. The government assembled existing land, rezoned and serviced them with infrastructure. Lacking capital from allocation of public resources into export activities, such method was very effective as it reduced the government's fiscal burden as the cost of public infrastructure was essentially borne by the landowners (W. Doebele, 1982; L. Hannah et al., 1993; World Bank, 2007; I. Sakong and Y. S. Koh, 2010). According to this method, all owners of give land first agree to redeveloping their property as a whole. After the redevelopment, they are allocated of new lots. A fixed portion of each owner's land is taken by the developer which it is retained for public infrastructure such as roads, parks, etc. and for sale to cover the cost of development. Therefore, a land readjustment project was in itself "self-financeable."

It is stipulated in the Land Readjustment Project Act that the Project may be initiated by the public entity or association of private land owners.[30] However, almost all land readjustment projects in Seoul were untaken by public entity, the local government, in particular. According to a study done by W. Doebele (1982), Seoul City was responsible for 92.9 percent of 37 million pyeong[31] of land completed or underway in Seoul in the mid-1970s. This accounted for thirty-eight(38) projects of the total of forty-three(43) projects during this given period. Another 2.5 percent was also initiated by a public entity, National Korea Housing Corporation.

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[28] Most of residential area in Seoul, particularly in today's *Gangnam* area has been provided by such readjustment method.

[29] Approximately 122 million square meters of land was developed under this Act during the period of 1960s to 1990s. Of these, 52 percent were developed in 1960s and 41 percent in 1970s.

[30] The Act stipulates that it can be initiated by in four(4) ways : One, by the Ministry of Construction; two, by a municipality; three, by certain public corporation; or four, by an association of private owners (W. Doebele, 1982).

[31] A pyeong is a unit of the size of rooms or buildings in Korea. One pyeong equals to approximately 3.3 square meters.

Only the remaining 4.6 percent was initiated by the private sector. As aforementioned, such initiation by the government was to expedite the negotiations of non-trivial number of landowners as well as to accelerate the process of securing public approvals of rezoning and servicing infrastructure for an extensive land area. In respect to the vastness of land size, the "Yeongdong[32] the First Land Readjustment Project" was 15.6 million square meters in land area. According to J. M Son (2003), such vastness is considered to be unfound in other parts of the world.

> "There is no case in the world including Japan where the area of land readjustment project exceeds 4 million pyeong. The fact that Yeongdong Land Readjustment Project is beyond 4 million pyeong can be construed as an aspect of developmental state. The mindset of the working-levels in the central government and Seoul City has already changed to 'It can be done. Nothing is undoable'. "

Land readjustment method was obviously "an indispensible tool for the urbanization of Korea" (W. Doebele, 1982), but it had a serious drawback. It contributed to high rise in land prices, from land use conversion and provision of urban services and provided the landowners with windfall profits. A newspaper article in Kyunghyang Newspaper dated 9/9/67 notes on the severity of land price escalation in Seoul due to infrastructure expansions and land readjustment projects. It notes that during the period of 1960 to 1966, the average annual land price escalation reached 40.7 percent and in some area, it increased as high as 509 percent. Such privatization of profits from government-initiated developments thus became a social issue. Furthermore, seemingly, housing supply with employment of such method proved to be ineffective in resolving the country's acute shortage in housing. By 1980, the housing supply ratio actually decreased to 71.2 percent from 82.5 percent in 1960 and 78.1

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[32] This area is part of the current *Gangnam* and *Seocho* area, the southern part of Seoul.

percent in 1970. Therefore, in December 1980, Housing Site Development Promotion Act was promulgated that enabled the government to exercise the power of eminent domain and expropriate the necessary privately-owned land at large-scale. [33] Following the completion of land development, the public entity sold off the plots to private developers for building development. Since only government or government-owned entities were eligible for such land appropriation, large-scale development projects were in effect "virtually monopolized by the public sector" (L. Hannah et al., 1993). That is, the Korean government enjoyed a unique position in supply of developable land of large-scale.

To note, developments of five(5) new towns in the late 1980s and early 1990s were undertaken under this Act. These new towns include Bundang, Ilsan, Pyongcheon, Sanbon and Joongdong which were led by public entities, namely, Korea National Housing Corporation ("KNHC") and Korea Land Corporation ("KLC")[34]. KNHC, established in 1962, was responsible in undertaking residential land development and leading new town projects. KLC, established in 1975, was in charge of acquiring, managing and developing industrial as well as residential sites[35]. They played a role in acting as the primary execution arm for the central government's land policies.

4.2.2 Promotions and Regulations of Private Sector Development

With supply of developable land by the government, the private developers built housings with purchases of such land. However, as can be evidenced by Table 4.3, the condition of housing shortage, estimated as the

[33] The compensation of the purchased land was based on the appraised price which was less than market price.

[34] In October 2009, Korea National Housing Corporation and Korea Land Corporation merged to Korea Land and Housing Corporation.

[35] In a report by the World Bank (2007), it describes Korea Land Corporation as "a particularly effective version of the urban development agency model".

number of households minus the number of housing stock, actually worsened during the period of 1960 to 1975. Between 1960 and 1966, the number of housing shortages increased by more than four hundred thousand units. By 1975, the number of housing shortages reached more than two million units. Such aggravation of housing shortages became a serious concern for the government. Stability in labor force of reproduction was a prerequisite for the nation's accomplishment of economic growth and therefore supply of cheap, affordable housing was critical. [36] However, rapid and concentrated housing developments inevitably demanded enormous amount of capital that exceeded public sector's capacity. In the course of government's pursuit of export-led industrialization strategy, particularly shifting its focus from light industry to heavy chemical industry in 1970s, intensive capital investments were made and therefore, the government was short in sources of funds to supply housing concurrently. As a consequence, the government started to strongly encourage private sector to undertake housing development.

Table 4.3 Housing Shortages in Years 1960 to 1975

Category (in '000s)	1960	1966	1970	1975
Population	24,954	29,160	31,435	34,679
No. of Household	4,378	5,192	5,857	6,754
No. of Housing	3,464	3,867	4,360	4,734
No. of Housing Shortage	914	1,325	1,216	2,020

Source : Korea National Housing Corporation (1980)

[36] In the first Five-Year Economic Development Plan of 1962-67, the housing sector was given relatively little priority (J. Doling, 1999). Therefore, in subsequent plans, the government's housing investment has taken a progressively more prominent place. In terms of investment amount, during the First Plan period (1961-1966), the public sector investment in housing accounted for 8.8 percent. However it increased to 13.7 percent, 24.7 percent and 32.5 percent during the Second Plan (1967-1971), Third Plan (1972-1976) and Fourth Plan (1977-1981) period, respectively (Korea National Housing Corporation, 1980 and 1985).

With aggravation of housing shortage as described above, the government's two-pronged focus was quantity (and also quality) and affordability of housing. That is, the government's major emphasis rested upon *supply* of housings that kept pace with urban population growth supplied at *affordable* price. Therefore, when the government announced the Second Five-Year Economic Development Plan (1967-71) in 1966, it announced its plan to encourage constructions of apartment-type housings and promote private sector development. Evidently, the existing prevalent form of housing, the detached housing, was not able to appropriately accommodate the surging housing needs. The government considered 'apartment-type housing' as a way to alleviate housing shortage problem. Therefore, in coping with explosive demand for housings, in 1976, Korean government introduced Apartment District System in which an area designated as Apartment District can accommodate only apartment-type housing and its accompanying facilities. By March 10, 1977, there were 12.7 million square meters of area in Seoul designated as Apartment District. This included areas in Jamsil, Yeouido, Apkujung, Bampo, to name a few (Maeil Business Newspaper, 3/11/77). Table 4.4 exhibit the change in percentage of apartments among different type of housings between 1975 and 1979. Among all housings, apartment constituted 2.3 percent of all housings nationwide in 1975, however the percentage increased to 6.4 percent by 1979. In Seoul, in 1975, the apartment accounted for 9.3 percent of all housings, but increased to 17.6 percent in just four years after.

Moreover, in order to promote private sector participation in housing development of massive scale, the government provided various incentivized policies and measures. Namely, one of the policies taken upon by the government was enactment of Specific District Development Promotion Act in December 30, 1972 which was effective until December

Table 4.4 Changes in Different Housing Type Constructions, 1975 and 1979

	1975			1979		
Housing Type	All	Seoul	Busan	All	Seoul	Busan
Single-Family	4,770,070 (95.9%)	674,689 (88.4%)	245,191 (87.3%)	4,906,633 (90.6%)	697,113 (74.9%)	282,617 (79.3%)
Town House	89,846 (1.8%)	17,216 (2.3%)	17,218 (6.1%)	162,837 (3.0%)	69,929 (7.5%)	26,931 (7.6%)
Apartment	113,606 (2.3%)	71,179 (9.3%)	18,342 (6.5%)	346,339 (6.4%)	164,07 (17.6%)	46,826 (13.1%)
Total	4,903,422 (100.0%)	763,084 (100.0%)	280,751 (100.0%)	5,415,809 (100.0%)	931,114 (100.0%	356,374 (100.0%)

Source : Korea National Housing Corporation (1980)

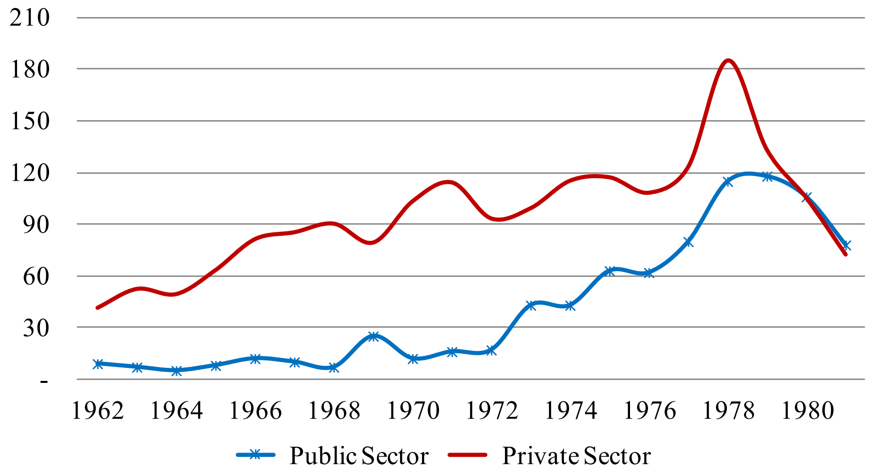
31, 1978, after a three-year extension in 1975. Under this Act, all taxes associated with housing construction and land dealings were exempted within the districts that were designated as housing development promotion area or redevelopment promotion area. Moreover, in August 18, 1975, the government announced Measures on Promotion of Private Sector Housing Construction. In accordance with this measure, financial supports for housing constructions, business tax reductions, supports in land acquisition and supply of necessary infrastructure were provided. In addition, since such apartment-type housing development required an intensive capital investment, the government introduced registration system in 1977 to encouraged participation of large companies. Amongst the registered homebuilding company, companies who satisfied certain requisites in terms of capital stock, annual housing construction and skilled technical manpower were nominated as designated homebuilding company. Such designated company had obligations of constructing more than one thousand housing units per year, however, were given priorities and favors in housing loans, in reduction on capital gain tax and in provision of opportunity to develop within Apartment District if the landowner or the public entity decides not to.

At the opposite side of promoting private sector development, the government imposed strict regulations on the processes of production and allocation of new housings. In the UN-Habitat's report (2008), it describes Korea's housing sector as "a showcase of pervasive direct government intervention throughout the entire process from land development to the production and allocation of new housing". In accordance with Regulation in Housing Supply, promulgated in 1977 "the government essentially controlled the whole process governing housing supply, i.e. what types and size of houses to build, where and for whom. In particular, the major instruments have been the price control on new apartments and regulations on their size distribution, rules for selecting purchases of new dwelling units, and the provision of housing loans and subsidized interest rates" (UN-Habitat, 2008). Particularly, with excess demand in the market and the resulting skyrocketing prices, the government placed price control upon new housings of more than 20 units. This had been enforced from 1977 to 1998[37]. The controlled price was determined as a mark up to the cost of production which was, in effect, much lower than the market price. Within this government regulatory framework, a typical private developer would purchase a plot or plots of serviced land from the public entity, construct and supply apartments in accordance to government regulations.

Consequent to aforementioned promotions and regulations by the government, as can be evidenced by Figure 4.3, the majority of housing developments were in fact, undertaken by the private sector. In particular, the government incentivized policies and the booming market spawned active participations of big construction companies of *chaebol* group in housing development, which will be discussed later in section 4.4. One could also note from the figure that the number of housing built by the

[37] After the deregulation in 1999, the price control has been reinforced since 2007.

Figure 4.3 Number of Housings Built by Public Sector vs. Private Sector (units in '000s)



Source : Korea National Housing Corporation (1980 and 1985)

public sector increased in proportion to that of the private sector. During the period of First and Second Five-Year Economic Development Plan (1962-1971), the public sector accounted for 13 percent of the total housings built. However, it increased to approximately 40 percent during the Third and Fourth Plan (1972-1981).

4.3 The Space Market and the Asset Market

4.3.1 The Booming Space Market

Entering the 1960s with rapid industrialization in progress, there was an explosive growth in urban population. Seoul alone, from 1960 to 1966, the population increased by more than 1.3 million persons. From 1966 to 1970, the population increase by another 1.7 million persons. By 1970, in Seoul, the number of housing shortage, calculated as the difference between total number of houses and the number of household, reached in excess of 500,000. In coping with such shortages of dwelling, Korean government's promotion of private sector apartment-type housing developments resulted in measurable increase in number of units. In fact, the number of new housings built per annum was quite massive. During 1970s, 200,000 units and during 1980s, 250,000 units were built annually. In 1990s, it increased to 580,000 units per annum. Yet, despite its massiveness in construction volume, by 1985, the housing supply ratio reached only 71 percent as highlighted in Table 4.5. It was not until 1997 that the ratio reached over 90 percent, and 2002 that reached over 100 percent. As Jeong Mok Son (2003) recalls, seemingly, no matter how great a number of housing units were built, there were still constant shortages.

Table 4.5 New Housing Supply and Housing Supply Ratio

Year	New Houses Built (1,000 units)	Housing Stock (1,000 units)	Housing Stock Growth(%)	Housing Supply Ratio
1970	115	n/a	n/a	78.1%
1980	212	5,319	-	71.2%
1985	227	6,104	14.8%	69.8%
1990	750	7,357	20.5%	72.4%
1995	619	9,570	30.1%	86.0%
2000	433	11,472	19.9%	96.2%
2005	464	13,223	15.3%	105.9%

* Note : Housing supply ratio = number of houses / number of households.
Here households exclude single-person households and non-family households.

** Source: Korea Statistical Office (http://www.kosis.kr)

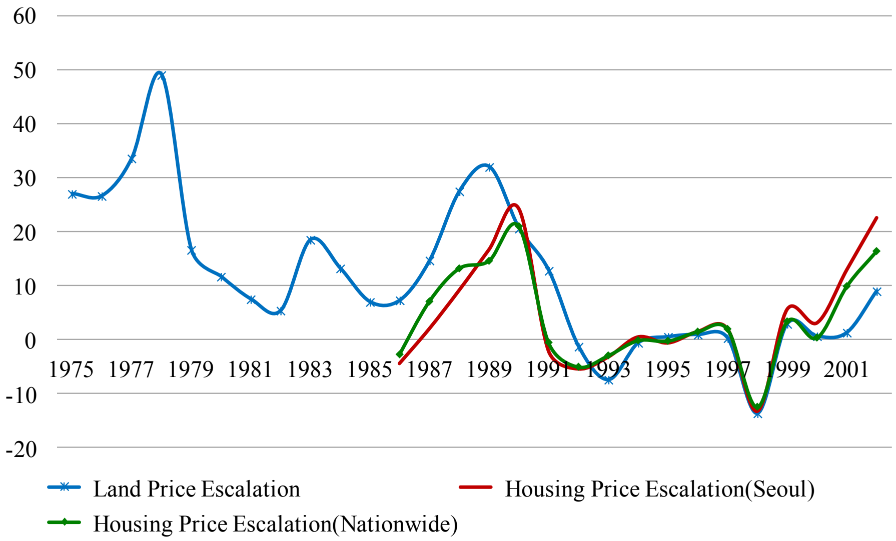
Though evidently, population growth and the number of rural-urban migrants showed a great surge, in large part, such shortages was "a result of the supply of housing lots usually lagging behind the actual demand created by an expanding population" (W. Doebele, 1982). The government deliberate restrictions in land-use conversion exacerbated excess housing demand and this was compounded by the government's action in 1971, designating greenbelts around Seoul and thirteen other cities. Such designation was aimed at containing growth and preventing expansions of such cities becoming too large. Therefore, the government's restricted and lagging land supply actually impeded the necessary housing development which contributed to further aggravation of housing shortage.

The excess demand in housing resulted in soaring housing prices and such excess was exacerbated by speculative activities as well. Apartments became widespread means of investment for increasing wealth by the individual buyers (S. I. Chun, 2009). In particular, with the global oil shock in October 1973, apartments became a good hedge against the inflationary environment (Maeil Business Newspaper, 2/2/77). That is, since the inflation resulted in the reduction of real interest rates on bank deposits, people moved away from banking institutions but to the market for equities and land and apartments. "The interest on time and savings deposits adjusted for inflation continuously declined and was negative or close to zero from 1973 to 1978. At the same time, the land-value index for Seoul almost doubled between 1970 and 1975" (D. Cole and Y. C. Park, 1983). In the article of Maeil Business Newspaper dated 2/2/77, it records the following.

> "The unit price of fourty(40) pyeong Yeouido apartment skyrocketed from KRW 140,000 at the time of residence occupancy in October 1971 to KRW 400,000 at the end of 1973. Mr. Yong Seong Kim at a real estate agency in Yeongdong says, "It is during this period that expressions such as speculative demand, price premium, pre-sale of apartments appeared."

With sharp increases in housing prices (Figure 4.4), for buyers, presale system became a method of anticipatory speculation of price appreciation. With an expectation that housing price will rise in the

Figure 4.4 Annual Land and Housing Price Escalations (%)



Source : Korea Statistical Office and Kookmin Bank

future,[38] buyers were more than eager to purchase at very early stage of construction. By the time construction is completed, the price of the purchased unit had already increased in great proportion, bringing the buyers a great capital gain. That is, under the enforcement of housing price control, new housing units were sold at below market price and after completion the buyers were able to sell them at market price. Consumers constantly made shifts from less attractive to more attractive area, from smaller housing unit to larger housing unit (S. I. Chun, 2009). In fact, this was possible through Korea's unique lease contract called "*chonsei* system[39]" in which the owners were able to use *chonsei* deposits to finance additional real estate purchases. The capital gain from housing transaction was more profitable that surpassed the financing cost of purchasing a

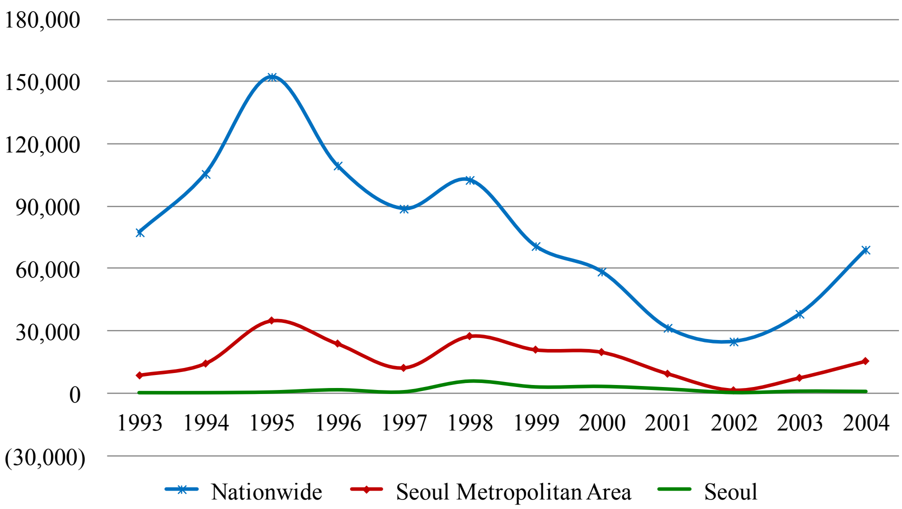
[38] According a report by UN-Habitat (2008), this made sense when government regulation limits the supply of developable land and urban housing.

[39] Korean *chonsei* contract specifies that the tenant pay an up-front deposit for the use of the property with no requirement for periodic rent payments. At the contract maturation, the tenant is entitled to receive from the landlord a payment equal to the *chonsei* deposit. (B. Ambrose and S. W. Kim, 2003)

house.[40]

In fact, prior to 1992, there is no record of non-trivial number of apartment units being un-presold. Nationwide, the number exceeded 10,000 only by 1992. For Seoul area, Donga-Ilbo dated 10/21/95 reports that Seoul had un-presold units of 160. The number of un-presold apartment units is shown in Figure 4.5. Meanwhile, an unwavering belief that 'real estate never fails' percolated through and became ingrained in people's minds. People were reaping fortunes with long-term upward movements in housing prices and therefore showed widespread speculative activities. In fact, this played a role in forming a perspective on real estate as commodity for "speculation". According to a survey jointly conducted by a real estate television channel CRTV and Department of Real Estate of Konkuk University, thirty-three(33) percent of 1,075

Figure 4.5 Number of Un-presold Apartments, 1993-2004



Source : Ministry of Land, Transport and Maritime Affairs (http://www.mltm.go.kr)

[40] The *chonsei* system effectively allowed property owners to leverage their investments by extracting significant deposits that are then used to purchase additional properties.

persons which was 1st in rank, have answered "speculation" to the question what comes to your mind when you hear the term "real estate" The answers that followed in rank were "investment(25%)", "way to make money(20%)", "housing(17%)" and "an upstart(7%)" (Donga-Ilbo, 5/5/04).

Meanwhile, one important consequence of sharp rise in economic growth as well as increase in urban population was the skyrocketing land prices. This was exacerbated by speculative activities as well. To note, land speculations became a favorite *chaebol* investment activity as well, creating a self-reinforcing speculative dynamics. By acquisition of real estate, *chaebol* were able to borrow more money and expand their business earning more profit, as real estate was great source of collateral for bank loans. To note, in 1988, the top 30 *chaebol* were reported to own approximately 434 million square meters of real estate, both in domestic and overseas (Donga-Ilbo, 9/20/89). This is highlighted in Table 4.6. As a

Table 4.6 Status on Real Estate Holdings of Top 10 *Chaebol* (year-end of 1988)

Rank by Asset	Top 10 Chaebol	Domestic		Overseas	
		m^2 in Mil	KRW in Bn	m^2 in Mil	KRW in Bn
1	Samsung	88.6	1,339	0.4	13.5
2	Hyundai	30.7	1,374	2.0	14.4
3	Daewoo	14.1	947	-	-
4	Lucky-Goldstar	20.6	1,163	0.1	8.2
5	Hanjin	25.7	307	3.4	17
6	Ssangyong	36.4	334	0.1	7.7
7	Sunkyung	52.3	370	0.2	5.1
8	Korean	17.6	498	-	-
9	Donga E&C	2.2	104	-	-
10	Lotte	3.4	686	-	-
	Top 10	*292*	*7,120*	*6.1*	*65.9*
	Top 30	*427*	*10,053*	*7.3*	*78.3*

Source : Donga Ilbo, Sept. 20, 1989

result, coupled with *use* demand and *investment* demand, land prices skyrocketed in the mid- to late-1970s and continued their high rise until the 1990s (Table 4.7). To note, the land price in Seoul in 1978, increased 135.7 percent from that of the previous year. It was only in 1991 that the country witnessed a decrease in land prices.

Table 4.7 Average Annual Rate of Land Price Escalation

	1975-79	1980-84	1985-89	1990-94	1995-99
Nationwide	30.6%	11.3%	17.7%	4.8%	-1.8%
Seoul	44.3%	21.3%	15.9%	5.9%	-2.4%

Source : Korea Statistical Office (http://www.kosis.kr)

4.3.2 The Inactive Asset Market

With the booming demand in the space market, there was presence of vast opportunities in development industry. Given such demand, securing of capital to finance for development was a critical factor, as in most development projects. As mentioned in the beginning of this chapter, in the course of pursuing export-led growth strategy by the Korean government, capital available in the financial market was largely allocated into export activities with preferential interest rates. Exhibited in Table 4.8, large allocations of credit were given to the manufacturing sector which mainly consisted of export industries. The sector was the predominant recipient of bank loans which absorbed on average of approximately 46 percent and 56 percent of total bank lending in 1965 and 1975, respectively. This was a considerable amount since manufacturing sector only accounted for 18 percent and 27 percent of GNP in 1965 and 1975, respectively (D. Cole and Y. C. Park, 1983).

Therefore, with heavy allocation of capital into export activities, the capital that would cater to the need of housing construction was unavailable under the formal financial system. Particularly, because of government's promotion as well as Korean's preference for "apartment-type" housing[41], large amount of capital was required. Lacking funding source for such housing construction, in 1977, the government allowed informal financing of *presale* under the Housing Construction Promotion Act. Employing presale system, developers were able to sell residential units well before its completion, only about 10 to 20 percent of construction in progress. More specifically, in general, buyers of residential units pay 20 percent of total price at the start of construction, 60 percent during construction and the rest, at completion of the project. Therefore, presale allowed receiving upfront capital from the buyers so

Table 4.8 Loan by Deposit Money Bank(DMB) and Korea Development Bank (KDB) versus Industrial Origin of GNP

	Loans by DMB and KDB				GNP Origin			
	1965		1975		1965		1975	
Category	Amount	%	Amount	%	Amount	%	Amount	%
Agriculture, forestry, hunting and fishing	19	19	305	9	303	38	2,312	24
Mining and quarrying	3	3	53	2	16	2	148	2
Manufacture	47	46	1,873	56	144	18	2,590	27
Light Industries	22	22	929	28	97	12	1,360	14
Heavy Industries	25	24	944	28	47	6	1,230	13
Social Overhead	17	17	675	20	70	9	1,231	13
Construction	4	4	273	8	27	3	498	5
Electricity, water & sanitation	11	11	216	6	10	1	126	1
Transport, storage & comm.	2	2	186	6	32	4	607	6
Services and others*	17	16	423	13	273	34	3,363	35
All industry	104	100	3,329	100	806	100	9,644	100

* Note : Includes wholesale and retail trade, restaurants and hotels, financing, insurance, real estate, ownership of dwellings, public administration and defense, social and personal services, education and rest of world.

** Source : Recited and re-edited from D. Cole and Y. C. Park (1983)

41 Percentage of 'apartment-type' built of all new housings : 36%, 58%, 67% and 80% in 1980, 1985, 1990 and 1995, respectively.

that housing constructions could be almost *self-financeable*, except for land acquisition and preliminary costs and periodic cash shortfall during the construction period. From developer's perspective, this was an easy and an effective way to raise funds for the construction.

Meanwhile, financing for purchase of land was available through corporate financing. This was based on collateral in which real estate was a good source. Due to a strong government regulatory oversight on the financial system, banks lacked autonomy in lending decisions which left them to be more concerned about securing collateral than undertaking credit evaluation (T. Ito and A. Krueger, 1996). Such collateral-based lending was, in fact the prime reason why *chaebol* showed such excess focus on real estate acquisitions[42]. To note, the government offered nominally short-term loans to have greater monitoring ability on private firms. By offering a short-term maturity on loans, their renewal was subject to government's discretion (D. Cole and Y. C. Park, 1983). As a result, collateral based, short-term lending became the way of practice for the banks.

In 1986, however, developer's access to capital was restricted, as government categorized majority of real estate developments and investments as "prohibited business for credit" (Figure 4.6). That is, to ensure capital flows into export industries, the government restricted financial institutions in extending credit for real estate acquisitions and constructions other than low-income housings and such. More specifically, lending was not available for constructions or purchases of housing units, officetels, ski resorts and such which are over 100 square meters in size or for purchases of lands excluding those lands for constructing housings for

[42] Edward Shaw (1967) in his report on "Financial Patterns and Policies in Korea", pointed out that Korea's aggravation in high land price is due to collateral-based lending (Kyunghyang Newspaper, 9/9/67).

Figure 4.6 Credit Restrictions in Real Estate Sector (as of 1997)

A. Prohibited for Credit

a. Funds for land purchase

- Excludes land purchase for constructions of low income housing or factory, for agriculture or educational purpose, or for constructions of office building by non-profit organization purchased by the government or road constructions by local government, etc.

b. Construction or purchase of housing, officetel, ski resort and amusement park (excluding establishment under Tourism Promotion Act)

c. Business prohibited for credit

- Condominium
- Restaurant with floor area or land area in excess of 330m^2 (excluding in tourist areas)
- Bar, Real estate, Golf Course, Casino, Manufacture of Undesirable Entertainment Instruments, Dancing Hall or Dancing Training Center, Massage Parlor

B. Regulations on Real Estate Acquisition by 10 Largest Business Groups

- Prior approval program by main creditor bank
- Demanding divesture of non-business purpose properties by main creditor bank, etc.

Source : J. Y. Son (2008)

low-income family and factory, for example. Therefore, under such restrictions, access to capital for development of mid- to high-income housing was not available. It was only by 1998 that real estate prohibited for credit was deregulated and there was liberalization of real estate lending[43].

4.4 Respective Responses in the Development Industry

4.4.1 Competitive Strategies in Housing Development

[43] Thereafter, there were introductions of asset-backed securities (1998), mortgage-backed securities (1999), real estate investment trust (2001) and real estate fund (2004).

Housing development, particularly before there was any sign of downward movement in housing prices in the early 1990s, was a rewarding business with good short-term profit gain. It involved relatively low risk in all elements of development, that is, in financing, marketing and public approvals. More specifically, as long as the developer was able to secure land, construction cost was almost self-financeable through employment of presale method. Capital of more than eighty percent of the total presale price was received before project completion. At completion of the project, all units are presold and all capital investments made are recouped. Then, the developer can move on to the next project. During the booming market with prevalence of speculative activities, there was relatively low market risk. In particular, due to restricted land supply in which developable land for housing was not readily available to respond to the demand, there were constant shortages in housing. Essentially, housing units was sold when built. Moreover, since government promoted such housing development to alleviate the country's constant housing shortage problem, the approval risk was greatly reduced. In particular, with government's direct role in land assembly and land development, the uncertainty and risk of extended schedule for acquisition of developable land was greatly reduced. Therefore, under such environment of low risk and high return, anyone was eager to engage in housing development business.

In general, the profit-making strategy adopted by a private developer would be in two ways. One is to engage in land development in which the developer essentially creates value from converting a raw land into a developable one. This is a high risk, high return business as it heavily depends upon regulatory hurdles. Two is to engage in building development in which the developer creates value from *product-making* or *product innovation*, charging higher price for the same amount unit and cost. A developer may be involved solely in land development or building development, or combination of both.

In Korea, the government monopolistic position in land development as well as strict control on housing left private developers with not much latitude in profit-making strategy. First, since the government assumed an exclusive role in large-scale land development, such activities by private developer was restricted from the outset. Second, in respect to building development, there was not a competition in quality of housings among developers. Under government's strict control on price, in which the price was capped at below market price, there was evidently, no incentive for developers to improve housing quality (C. H. Kim and K. H. Kim, 2000; C. Koh, 2004). "Developers tried to fulfill only the minimum safety and other quality standards set by government such as the provision of open space" (C. H. Kim and K. H. Kim, 2000). Moreover, with surging demand in the market, regardless of quality of housing, it was sold when built. Speculations were based on not quality or *use value* of housing but the *exchange value* of the potentiality of housing price appreciation based on land value assumptions, mainly based on location. Therefore, at this time, there was no consideration of different unit layout, site design, interior design and such. Seemingly, the developers were able to reap windfall profit without any professional knowledge or expertise. This, in effect, has played in reducing the role of the developer and forming stereotyped negative public image of the developer in Korea.

The profit from building development is calculated as unit price multiplied by quantity less the cost which includes land cost and construction cost. The profit maximization strategy under such price control would be to maximize quantity and at the same time minimize cost until the marginal profit equals zero. Since land was sold and supplied by the government below market price, the focus was in minimization of construction cost. In other words, since unit price was capped under the price control, profit was achieved through increasing the construction volume leveraging on the economies of scale and at the same time minimizing construction. To note, as consequence to land supply restriction, developer's risk of overbuilding was *almost* non-present. More specifically, under such restricted land supply, "there is less chance of spatial competition between builders generating overbuilding" (M. Ball, 2006). Therefore, a developer was able to solely focus on constructions of housings on land supplied by the government. In a market where developable land was not readily available responsive to demand, overbuilding or the risk premium of development was almost negligible.

In such profit maximization strategy of massive construction and cost minimization, the attractiveness of combining development and construct-ion was greater. In effect, construction companies were well suited for undertaking such development project themselves, controlling cost and gaining profit from massive physical constructions. Cost minimization was able to be achieved through cookie-cutter *match-box* design. Such design accelerated constructions in massive volume which satisfied the needs of the government as well. As a consequence, the focus on physical construction or *mere* supply of housings resulted in uniform *match-box* designs of the apartments in Korea (S. I. Chun, 2009).

4.4.2 Domination of Big Construction Companies in Development

Up until the 1960s, housing development activities were dominated by small developers, building single-family detached housings. According to a published magazine, August 1984 edition of Monthly Modern Housing[44], the early private housing development activities involved converting of poor quality thatched roof houses into new Korean style

[44] This is recited from Ph. D dissertation of S. H. Lim (1994).

housing that began in 1930s, in Seoul. By 1940s, this became a business where the chief workman, usually a master carpenter heading several workers, often built houses for sale. In the late 1950s and the early 1960s, such small-scaled private housing development became dominant in housing provision. The small homebuilders usually purchased old houses and replaced them with new ones (S. H. Lim, 1994).

However, after government's announcement on promotion of apartment-type housing in 1966, when Korea National Housing Corporation took an initiative in developing a high-rise apartment building for middle class families in 1970, the private sector was quick to jump into the new business (J. M. Son, 2003). This was prompted by the huge success made by the Corporation. However, such apartment-type housing consisted of few hundreds of units[45] which required an intensive capital investment as well as large organization to execute. Though construction cost was essentially *self-financeable* thru presale, larger plot of land needed to be purchased and longer period of time needed to be spent before they could recoup their investments. As such, new private companies with better financial strength emerged in housing development activities in lieu of the existing small-scaled homebuilders (S. H. Lim, 2002).

Some of the early companies included Samik Housing (1969), Hanyang Housing (1973), Chungwha Housing (1973), to name a few. Though these companies were successful in new apartment business, one could also witness a nontrivial number of companies going bankrupt who did not have the necessary financial capacity to make large capital investment and endure long period of construction (T. K. Lee, 1972; J. M. Son, 2003). Therefore, at this time in early 1970s, there were yet

[45] According to a survey by KNHC, by year 1973, 91.6 percent of apartment constructions had units over four-hundred (Maeil Business Newspaper, 2/5/76).

uncertainties and risks in the new high-rise apartment market, and yet, no big companies from *chaebol* group were too eager to participate (S. H. Lim, 2002).

Meanwhile, there was a continuing aggravation of housing shortage. In fact, the condition of housing shortage was worsening. Given the restricted land supply by the government and long lead time of construction, the developers were unable to immediately respond to the surge in demand. Therefore, demand outpaced supply in great proportion which resulted in soaring housing prices. For example, as described in the previous section, the price of an apartment at Yeouido increased almost three times between 1971 and 1973. In actual, this high rise in prices was further exacerbated by the speculative activities by individual buyers of the housing units. Buyers became anticipatory speculators, hoping to achieve great fortune from appreciation in housing prices. In 1975, escalation of land price in Seoul peaked 32 percent from the previous year. Against the backdrop of such booming market, the year 1975 earmarked the participation of big construction companies of *chaebol* group in apartment development activities. Namely, Hyundai E&C initiated a development of apartment complex in Apkujung-dong in 1975. On March 1, 1975, there was an article in the Maeil Business Newspaper that wrote,

> "Other companies in the same industry are startled to find Hyundai E&C, the company who is first in rank in the country's construction industry, which grew to be a solid *chaebol* group, began their business in housing development."

On that same year, Korea's first licensed company in civil and building construction, Sambu Construction Co. also started to participate in the business. Daelim Industrial and Lotte E&C became involved in the following year.

In fact, it is suggestive that government's encouragement and assistant help to prompt such participation of big construction companies of *chaebol* group. The government announced Measures on Promotion of Private Sector Housing Construction on August 18, 1975 which provided tax incentives to housing development. Moreover, with government's designation of Apartment District in 1976 and nomination of "designated" homebuilding companies in 1978, who were obliged to construct more than a thousand units per year, there was greater participation of large companies to undertake developments of housings at massive scale. Some of the "designated" homebuilding companies included Samik Housing, Hanyang Housing, Life Housing, Hanbo Housing, Lotte E&C, Daelim Industrial, Donga E&C, Hyundai Development, Kukdong E&C, to name a few. The extent of massiveness in constructions by some large companies is highlighted in Table 4.9. Hyundai Development, for example, within two-year period of 1987 and 1988, had built almost eleven-thousand

Table 4.9 No. of Housings Built by Major Designated Homebuilding Companies

	'78-'82	'83-'84	'85-'86	'87-'88	Total
Daewoo E&C	120	136	809	380	1,445
Kukdong E&C	495	536	110	1,010	2,151
Donga E&C	166	-	1,440	1,035	2,641
Daelim Indusrial	1,032	480	-	2,116	3,628
Hyundai E&C	1,246	889	1,212	-	7,697
Hanbo Housing	5,988	1,232	-	600	7,820
Woosung E&C	2,887	1,209	1,740	7,683	13,519
Hanshin E&C	6,182	2,759	2,552	2,340	13,833
Hanyang	7,005	2,962	540	4,203	14,710
Life Housing	12,247	2,145	2,319	3,176	19,887
Samik Housing	14,101	3,150	1,823	1,546	20,620
Hyundai Dev.	2,048	7,651	6,062	10,981	26,742

Source : Korea National Housing Corporation (1989) apartment units. Evidently, the continuing surge in housing demand during the 1970s and 80s supported such constructions at massive scale.

Meanwhile as Table 4.10 highlights, the land price of residential-use escalated at an alarming rate. In particular, land price in Doonchon-dong, Seoul, the nominal unit price of residential-use land increased almost by seventy-folds during a twelve-year period, between 1975 and 1987. The land price was becoming so high that developers experienced great difficulties in purchasing of such land (Maeil Business Newspaper, 2/18/77 and 2/19/81). Therefore, there were increasing competitions among the larger companies in securing large-sized land supplied under the Housing Site Development Promotion Act by the government, which was sold at below market price.

Table 4.10 Residential-use Land Unit Price, 1975 and 1987 (unit in KRW/pyeong)

District in Seoul Area	May 1975			April 1987		
	High	Mid	Low	High	Mid	Low
Seocho-dong	100,000	70,000	40,000	1,789,800	1,200,000	849,000
Jamsil-dong	50,000	30,000	20,000	990,000	792,000	-
Gyebong-dong	50,000	30,000	10,000	1,200,000	800,000	648,000
Sadang-dong	80,000	50,000	20,000	1,200,000	94,8764	697,523
Doonchon-dong	50,000	30,000	10,000	1,097,000	849,000	697,000

Source : Korea National Housing Corporation (1987)

Under such environment where profit was achieved through mass productions of housing units and there was high competition in securing land from the government, the big construction companies had the competitive advantage over smaller, less financially strong companies. That is, the financial burden of massive construction and purchasing of large-sized land required intensive investment of capital, and it required capital of its own. More specifically, in securing of the site, the funds were raised through corporate financing which was based upon the financial strength of the company. However, by 1986, extension of credit to real estate sector was restricted in which the government had categorized majority of real estate developments and investments as 'prohibited business for credit'. For example, extension of credit was prohibited for land acquisitions or constructions of housing units which are over 100 square meters in size. Such credit control continued until 1998 in developers were essentially precluded from any access to capital in the financial market during this period of 1986 to 1988. This meant that a developer could not initiate a housing development project other than low-income housing which extension of credit was available.

Moreover, in securing for the project, these big construction companies had the competitive advantage in information access and cooperative relationship with the government. To note, particularly during the 1960s and 70s, the big construction companies of *chaebol* group were the main benefactors of political funds (J. M. Son, 2003). Therefore, special relationship between public officials and these construction companies were formed which favored such companies in large developments. The government resorted to construction companies of *chaebol* group to undertake massive housing development in a short timescale. Though may be controversial, since it generated an unfair competition in the property market, seemingly, such relationship between the government and construction companies was inevitable to cope with rapid urbanization and to succeed in the government's development goals.

The big homebuilding companies, namely, Samho, Hanyang, Samik, Life Housing, etc. went bankrupt by late-1980s and mid-1990s, embroiled in their own financial difficulties. Only the big construction companies of *chaebol* group[46] which had the financial backing from *the group* had the strength to endure any financial problems in the intervening period of low marketability and cash shortfall. In particular, their greater participation in the housing development industry was prompted by the five(5) new town developments, with the government's plan to supply two million housings during the years of 1988 to 1992. In the Maeil Business Newspaper dated December 3, 1990, there was an article on the heated competition among the *chaebol* group in the housing market.

> "The construction companies of the top 5 *chaebol* group, namely, Hyundai, Daewoo, Samsung, Lucky-Star, Ssangyong who have declared to actively participate in the housing development prompted by new town constructions are focusing on the market competition leveraging on their *group* image….While they previously have been putting much emphasis on the overseas constructions and contract award projects, they are striving to innovate themselves to become the top housing development company with active participations in new town constructions."

With active participations in these new town projects, the big construction companies of *chaebol* group began to exert dominancy in housing development activities. Therefore, with such predominance of big construction companies, the emergence or growth of large, professional developer had no place in the industry.

Going forward, such dominance by the big construction companies in large-scale development laid the foundation on their continuing strong presence in today's real estate development industry of Korea. This will be discussed with future prospects of the industry in the next chapter.

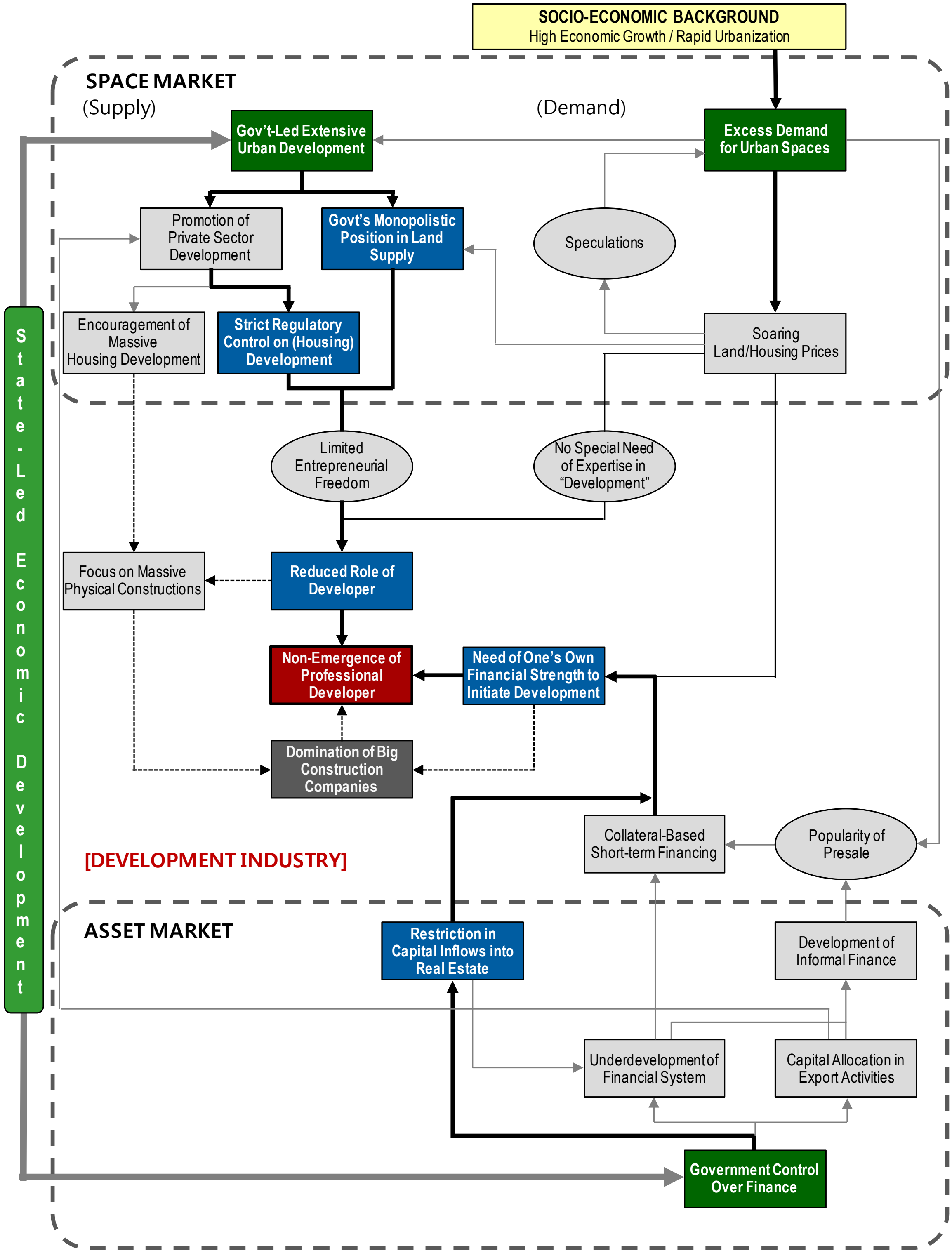
[46] Many of these big companies have accumulated wealth during the period of intensive physical infrastructure expansion in 1950s and 1960s as well as overseas construction that began in the late 1960s.

4.5 Summary of the Main Findings

Figure 4.7 exhibits how different factors have come to play in shaping today's inactive presence of Korea's development industry. It answers the key question of why there has not been an emergence of large, professional real estate developer and instead, a domination of construction companies in development activities in Korea. The main findings of the research are as follows.

One, due to excess demand and government's heavy intervention in the space market, the role of a developer has given way to massive *physical* constructions. Committed to achieve her economic development goal, the socio-economic conditions during the formative years of Korea's real estate development industry were characterized by high economic growth and rapid urbanization. With explosive increase in urban population, the housing shortage became acute with demand outpacing supply. In response to surging demand, the government assumed an exclusive role of land development as to facilitate the development process as well as to deal with windfall profit gains reaped by the landowners. In effect, such supply of developable land by the government excluded the private developers an opportunity to profit from land development from the outset. Meanwhile, Korea's government placed emphasis on massive supply of housings that kept pace with population growth as well as affordability of such housings. In particular, the government placed a price control on new housings sales which left the developer with very limited entrepreneurial freedom in product innovation, design and such. Moreover, under such price control, Korean developers did not have the incentive to improve housing quality. In the booming market where the buyers hoped for appreciation in land values, the quality of housing was not a concern. It was sold when built. Therefore, combined with housing price control and surging demand, the competitive advantage of entrepreneurship of a

Figure 4.7 Factors Characterizing Real Estate Development Industry



developer was not present. In such environment, the profit maximization strategy of a developer was to maximize quantity by leveraging on economies of scale and at the same time to minimize cost of production. In effect, the attractiveness of combining development and construction was greater, in which construction companies were well suited. The competitive strategy adopted by such construction companies was to apply cookie-cutter, *match-box* design, thereby minimizing cost and effectively supplying at massive scale.

Two, due to large capital requirements by apartment-type housings developments at massive scale and limited capital availability in the asset market, the real estate developer needed his or her own financial strength to initiate and drive such development. To cope with fast pace of rural-urban migrants, the Korean government encouraged massive developments of apartment-type housings and the market risk of overbuilding by developers was severely reduced due to government's rigid control on land supply. As a result, the massive developments of apartment-type housings were justified, which required an intensive amount of capital. However, the capital in the asset market was largely allocated into export activities and capital inflow into real estate was deliberately restricted by the government. Therefore, with the un-availability of capital in the asset market aside from presale proceeds of residential units, it required financial strength of big business groups, to commit considerable amount of equity capital and drive development.

The resulting consequence of the reduced role of developer and the need of one's own capital to initiate and drive development project was the non-emergence of a true, professional real estate developer. The entrepreneurship of a developer with differentiating, value-creating development idea was not in demand. Moreover, the access to the necessary capital was not available to finance for the development. As a consequence, financially strong construction companies of big business groups have come to dominate the real estate development industry of Korea, focusing on massive *physical* constructions. With presence of low market risk and low approval risk however seemingly a high return, they were more than eager to engage in housing development business. By injecting their own capital, the big construction companies were able to secure and drive real estate development projects. In such environment, the emergence and growth of large, professional developer did not take place. That is, competing with such companies of strong financial strength was not a winning game, especially when there was no competitive advantage over expertise or entrepreneurship in development.

Chapter 5. Conclusions : Future Prospects and Challenges of Korea's Real Estate Develop -ment Industry

5.1 Korea's Development Industry in Transition

As has been observed from Chapter 4, the big construction companies of *chaebol* group, with cooperative relationship with the government, played an instrumental role in meeting housing demand during Korea's industrialization and economic expansion period. Despite negative views on such relationship which became associated with uneven market competition, bribery and corruption (H. D. Kim et al., 2005; T. K. Park, 2005), it is undeniable that it "drastically altered the physical landscape of the nation" (S. W. Kim, 2010). Moreover, the government's reliance upon big construction companies as undertakers of massive housing successfully propelled Korea to achieve her economic development goal and keep pace with rapid movements of rural-urban migrants.

As Korea enters 1990s, with subdued land price escalation and high increase in household income, there were demands of differentiated and better quality properties than just *space*. That is, the physical supply of space was more or less satisfied, where housing supply ratio has exceeded 100 percent by 2002 and buyers' demand became more diverse with increase in income and wealth. Employing differentiating ideas and strategic marketing tactics and such which are considered to be the domain of real estate developer's role was increasingly in demand. In short, by 1995, there were increasing interests in the profession of "real estate developer" in Korea. This can be evidenced from an article of special edition in Maeil Business Newspaper dated May 26, 1995 which elaborately discusses the role and activities of a developer. Meanwhile, in the late-1990s and early-2000s, construction companies started to introduce "brands" in the naming of apartments[47]. Brands such as *Raemian* by Samsung Construction and *I-Park* from Hyundai E&C replaced the names of Samsung Apartment and Hyundai Apartment, respectively. The brands offered images of luxurious, comfortable, green, IT-smart and such.

By 2001, there has been a separation of development and construction (Donga-Ilbo, 12/27/01). Construction companies, having suffered from financial distress during the so-called "IMF period" of 1997-98 due to heavy investments in development projects, limited their business scope to construction. Taking the opportunity foregone by these construction companies, amid housing boom in early to mid 2000s, real estate developers increased in great numbers. They mainly focused on mixed-use residential and officetel projects which were pre-sellable and at the same time were not under such strict regulations as the ordinary apartment-type housings. In fact, in the late 1980s, Nasan and Guewpyung, who are considered to be the early developers in Korea, introduced such innovative residential product, mixed-use residential and officetel, respectively. However, before they could grow as a large, professional developer, they exited from the market due to financial conundrum in 1990s.

Meanwhile, at the financial side, project financing became widely accepted as a method of raising funds for development. However, lacking

[47] The trend in naming of apartments has changed over time. Until the late 1960s, the apartments were named after the area such as Jongam Apt. in Jongam-dong. During 1970s, they were named after the construction company for the given apartment such as Hyundai Apt. and Daewoo Apt. During 1980s, naming in combination of area name and construction company such as LG Suji Apt. and Boramae Samsung Apt. were common. It was during 1999 and 2000 that "apartment brands" were introduced such as Chereville, Raemian, I-Park, etc. and such branding became prevalent after 2000 and onwards.

experience in evaluating risk, lenders required collateral from financially strong company. Besides, requiring such collateral was an easy way of lending for financial institutions. Since real estate developers were small and financially weak, construction company, having interest in securing construction contract were willing to provide such collateral or more specifically, guarantee for financing. With guarantee provided by the financially strong construction company, financial institutions bases short-term lending stream against the proceeds of pre-sellable properties.

In respect to large-scale development, with problems arising from existing way of housing development where the government would sell commercial-use land individually, the government began to pursue large-scale mixed-use development as a development scheme since 2001. However, with absence of large, professional developer to undertake such development of large-scale, a consortium of investors would establish project financing vehicle. The consortium relies on big construction company for their financial strength and experience in housing development as the key source of repayment of financing is based upon presale proceeds of residential properties. The construction company, on the other hand, would participate in the consortium to secure construction contract and also take the leading role in development so that it can directly manage the associated risk with provision of the guarantee. In summary, with absence of developer who has the capital-base to undertake capital-intensive development, construction companies continue to exert a powerful influence in the industry.

Today, easy access to capital through presale is becoming less available as potential buyers' anticipatory speculations for price appreciation have declined. That is, buyers no longer show fervor in purchasing properties through presale as there is no assurance that the return from capital appreciation will exceed financing cost for the purchase. Thus, at the development side, there is a weak confidence in the marketability and thus the financial viability of the given project. Moreover, with recent adoption of International Financial Reporting Standards (IFRS)[48] and overall down market due to global economic crisis since 2008, construction companies are increasingly drawing back from providing guarantees to the financial institution. This issue is aggravated by non-trivial number of construction companies going into bankruptcy that had aggressively and liberally provided direct guarantees for project financing of development projects. At the financial sector, in 2011, business operations of sixteen savings banks were temporarily suspended by Financial Service Commission, all of which have provided heavy project financing loans during the mid to late-2000s. In fact, many of large-scale project financing development projects have come to a halt.

Therefore, more recently, amid such market condition and financing deadlock in real estate development, there has been an emergence of better capitalized developers in Korea's development industry (Korea Economic Daily, 10/26/10). For example, there have been private corporations who began to expand their business operation into real estate development, utilizing their existing land for development such as mixed-use retail which includes retail mall, hotel and office. Moreover, there has been emergence of developers with strong financial backing by funds raised from institutional investors and/or individuals in the form of REIT. With capital strength and development expertise, these developers are able to initiate development and attract asset-level investors. To note, in recent years, there has been increase in investments of office buildings by financial institutions in the form of REIT or real estate fund. These institutions have become increasingly dominant as owners of these office-

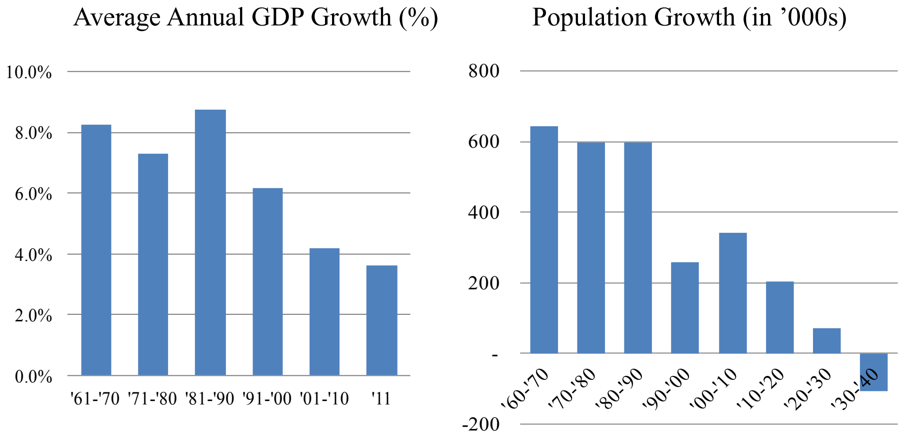
[48] Prior to the adoption of IFRS, off-balance sheet treatment was applied where the provision of guarantee did not affect the financial performance of the construction company, the party who provided the guarantee to the lender.

use properties, making investments with interests of operating income streams.[49]

5.2 Future Prospects and Challenges of Korea's Development Industry

As Korea transforms herself from developing to developed country, she experiences stabilization of economic growth and population growth. As highlighted in Figure 4.8, according to UN Data, the average annual GDP growth during three-decade period from year 1961 maintained in excess of 7 percent. However, the past decade of Korea witnessed an economic slowdown and by 2011, the annual GDP growth reached 3.6 percent. Furthermore, in recent years, there has been abatement in population growth and it is projected that from 2020, the population will actually show almost a flat or a negative growth (Korea Statistical Office).

Figure 4.8 Average Annual GDP Growth and Population Growth



Source : UN Data (http://data.un.org), Korea Statistical Office (http://www.kosis.kr)

49 To note, after the IMF period, big business groups began to re-evaluate their fixed capital and institutional investors started to make investments in office buildings whose cashflow is more predictable as compared to retail properties.

As previously discussed in Chapter 2, such changes in socio-economic condition of a country due to transformation from a transitional market to an established market or a developing country to a developed country have effects on how development is achieved. In such market where economic growth stabilizes and population show flat or even negative growth, it is expected that Korea will no longer find a surge in demand for urban development or expansion in infrastructure as in the past. In particular, nationwide, the new housing supply rate[50] exceeded 100 percent by 2008. In Seoul Metropolitan Area, the rate reached 99 percent by 2011. Moreover, the vacancies of office buildings, even in the core business districts of Seoul, have witnessed excess of natural vacancy rate[51]. Therefore, though there may be up and downs of cyclical movements in real estate market, with large stock of physical capital already in place, it is expected that Korea will no longer find or need large-scale real estate development, perhaps except for few exceptional redevelopments.

In the past, during Korea's industrialization stage, the government assumed a central role in land development to expedite the development process. Otherwise, it would have presented additional risk to the development party in obtaining public approvals and extended the timescale of development. Moreover, to successfully accommodate the soaring increase in urban population, the government placed strict regulatory control on housing price. The national goal of economic development provided legitimacy for such heavy intervention. However, as Korea becomes one of the developed countries, such intervention or role of the government would no longer be in demand nor justified. In fact,

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[50] New housing supply ratio = number of houses / number of households. In the new ratio, the number of households includes single-person households and non-family households.

[51] The vacancy rates of prime offices in CBD at second-quarter of 2011 to 2013 are 13.5 percent, 16.3 percent and 15.6 percent, respectively. (Korea Office Briefings from Savills, http://www.savills.co.kr)

after the industrialization period, there has been less development control placed upon by the government. For example, there have been deregulations of housing price control[52] and encouragement of private sector participations in large mixed-use urban development projects through public-private partnership. It is anticipated that the government intervention would further reduce which would present greater development opportunities and entrepreneurial freedom in the private sector.

Meanwhile in the asset market, as real estate prices or more specifically, cashflow generated by real estate become more stabilized, it is expected that there will be greater capital inflow into real estate as an investment vehicle. During the industrialization stage, high economic growth and rapid urbanization resulted in high escalations of real estate prices which were further aggravated by speculative activities. During this period, the value of real estate was based upon speculative assumptions than income potentiality (P. Doran, 2000). Under such arrangement, short-term profit gain was able to be achieved through capital appreciations in short timeframe. However, as Korea becomes a developed country with stabilization in economic and population growth, such short-term gain will be difficult to be achieved. Instead, a stabilized income stream will be generated. This offers a greater predictability of future cashflow and it is expected that there will be an increase in investments by institutional investors. With presence of real estate fund or REITs which raise funds from institutional investors, the completed assets from development can be taken over by such vehicle whose investors have interest in long-term operating cashflow and capital gain after some years of operation. In fact, domestic subscriptions of both private and public real estate fund

[52] Price cap on new housing supply had been deregulated since 1999 until it has been re-placed upon from 2007. Very recently, however, there are discussions on re-deregulations (Maeil Business Newspaper, 7/16/13).

increased from KRW 5.6 trillion in 2007 to KRW 15.6 trillion in 2012[53] which is almost KRW 10.0 trillion increase in only five(5) years.

Against the backdrop of such socio-economic context of economic stabilization and almost flat population growth, it is expected that Korea would no longer need an extensive, large-scale real estate developments and the development industry will be directed toward less interventions by the government and increase in capital inflow from the financial institutions. Under such conditions, the competitive strategy to be adopted by the real estate developer would be to maximize income potential of the property. That is, developers would need to place greater emphasis on the "value-creation" of development, achieving maximum income potentiality of the completed asset. Thus, identifying and realizing value catering to the needs of the end-users will be of much greater importance which would translate to greater value placed upon by the investors or individual buyers of that property.

Going forward, it is projected that the entry barriers to development industry will become higher in which the developer need to have the necessary expertise as well as capital. More specifically, the developer would need to have the expertise and entrepreneurship to successfully adopt a competitive strategy of value-maximization in which the income potentiality of the property is maximized. At the same time, the developer would need to be financially capable to be able to initiate project, from securing of the site to bearing the preliminary cost in obtaining public approvals. The investor would then, be able to invest based upon such assurance that the developer with his or her commitment in the project will not walk away from the project, and will be able to complete project successfully ready to generate expected revenue. Therefore, under such

[53] Amount based on year-end for 2007 and December 27 for 2012 (Recited from Yonhap News, 12/30/12).

heightened barriers of entry into real estate development industry, it is expected that the development industry would restructure itself so that the credit-constrained and non-professional developers are competed out of the market and developers with financial strength and expertise dominate.

The current dominance of big construction companies in development industry may be replaced by professional developers who can assume the role of *control tower*, orchestrating the entire process of development. Here, the "professional developers" not necessarily indicate a new separate entity, but include the big construction companies in the current development industry. However, they would need to restructure their business operation in which they are willing to take the necessary risk and is able to effectively exert entrepreneurship in development. However, anticipation of such emergence of a true, professional real estate developer may be gradual with various obstacles and challenges to overcome that would steer the sector into a proper direction.

5.3 Concluding Remarks

The outset of this study started with perhaps a simple question of why there is an absence of a large, professional real estate developer in Korea. The study began with examination of the current characteristics of Korea's development industry and the associated issues of such inactive presence of the industry. Then, the study explored the interplays of government intervention, market structure and respective responses in the development industry. The study tried to identify the key factors within their historical socio-economic background that have contributed to today's characteristics of Korea's development industry. Lastly, the study tried to present a prospect on how the industry will change as Korea transforms herself from developing to developed country.

Heavy government intervention in development, underdevelopment of financial system, rapid urbanization and subsequent need for massive constructions may be said to be typical characteristics of a developing country. However, the examination of Korea's development industry in its formative years suggests that the current inactive presence of the industry is more pronounced in Korea because of the following reasons. One is the high degree of government's intervention in housing market even compared with other countries such as Vietnam, Malaysia and Indonesia. Such pervasiveness is highlighted in the UN-Habitat's report (2008). The entrepreneurial freedom of a developer was strictly precluded, not just in the low-income housing market, but in the middle and the high income housing market as well. Especially under the price control, there was essentially no place in the private market that the developer could leverage on their entrepreneurship. This promoted focus on *physical constructions*, or mere supply of spaces and not *development*. Moreover, the government's rigid land-use regulation and the unresponsive land supply to market contributed to exacerbating the speculative activities of the buyers resulting in greater excess in demand.

Second, Korea's financial system was not only underdeveloped but the government consciously and specifically restricted capital inflow into real estate sector. Even though construction costs were almost self-financeable with the employment of presale system, funds for securing site and initiating the project was in required. In particular, the massive scale of the apartment-type housings required an intensive amount of capital. As a consequence, the financially strong companies that have accumulated wealth from other economic activities were able to grasp the opportunity of development. To conclude, Korean government's decisive role in large-scale land developments and massive and timely physical constructions by such financially strong construction companies who maintained cooperative relationship with the government, played an instrumental role in enabling extensive housing developments in short-time frame.

Going forward, as Korea transforms from developing country to developed country and experiences stabilization of economic growth and flattening of population growth, the characteristics of her development industry and the way of development will not be the same as in the past. Though there are already indications in the market, the industry would find smaller or more modest scale of development, greater dominancy of private sector as opposed to public sector in development, and more mature market for stabilized asset that would attract greater capital from financial institution. With greater emphasis on "value-creation" of development and financial capability to successfully undertake such development, it is expected that large, professional real estate developers of expertise and financial strength will emerge. Though it is anticipated that this would be eventually the case for Korea's development industry, inevitably, there would be difficulties and challenges to such emergence.

Harms and damages done by unsuccessful development not only involve financial losses of the stakeholders but also negatively affect the built environment as well as the users of the property. The responsibilities of a developer should be to ensure that the development provide a good source of income stream for the investors and government as well as vitalize the regional economy and influence the very urban fabric which meets the needs of community at large.

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국문초록

한국에서는 선진국과는 달리 부동산 개발에 있어 대형 전문 디벨로퍼가 부재하고 건설회사가 주도적인 역할을 수행하고 있다. 본 연구에서는 오늘날 한국에서 부동산 개발산업이 제대로 확립되지 못한 이유를 규명하고자 한다. 이를 위해 실물시장과 자본시장, 그리고 정부 개입 간의 상호작용에 초점을 맞추어 한국 부동산 개발산업의 변천과정과 사회경제적 시대배경을 고찰하고, 오늘날의 한국 부동산 개발사업 특성을 형성한 요인을 살펴보았다.

한국에서 본격적인 부동산 개발은 1960년~1970년대 박정희 대통령 독재 정권 통치 시절 급속한 경제성장을 달성과 빠른 도시화에 대응하기 위한 국가의 야망에서 시작되었다. 경제 성장 추구와 도시 인구 증가에 대응하는 과정에서의 관치 경제는 한국 부동산 개발산업 성장에 독특한 환경을 제공하였고 개발산업 특성을 결정짓는 토대를 형성하였다. 본 연구의 주요 결과는 다음과 같다.

첫째, 실물시장에서의 초과 수요 및 정부 개입은 디벨로퍼의 역할 감소를 초래하였다. 급격한 도시화에 따른 도시 인구 급증은 만성적인 주택 부족을 야기하였으며, 이에 따라 정부는 신속한 개발과 개발 이익 사유화를 막기 위해 토지 공급 및 토지 개발에 있어 독점적인 역할을 담당하였다. 즉, 민간 디벨로퍼에 의한 토지개발 행위는 처음부터 제한되었다. 한편, 한국 정부는 신규로 공급되는 주택 가격을 규제함에 따라 디벨로퍼의 영역으로 간주되는 타겟 시장의 선정과 차별화된 디자인 적용 등의 기업가적 자유를 제약하였다.

결국 이러한 환경하에서 디벨로퍼의 이익 극대화 전략은 수량을 극대화하고 이와 동시에 생산 비용을 최소화하는 것이었다. 이에 따라 개발과 건설을 동시에 담당하고 주택을 대량 공급할 수 있는 건설회사가 부동산 개발에 가장 적합한 형태가 되었다.

둘째, 높은 투자비용이 요구되는 대규모 아파트 건설과 자본시장에서의 여신 제한은 개발을 착수하고 진행하는 과정에서 디벨로퍼 자신의 자금력을 요구하였다. 정부의 아파트 건설에 대한 인센티브 정책과 실물시장에서의 초과수요는 시장 플레어들로 하여금 집약적인 투자를 요구하는 아파트 개발을 촉진시켰다. 그러나 금융 시스템에 대한 정부의 강력한 규제와 감독, 부동산으로의 자금유입이 억제됨에 따라 개발에 필요한 자금조달이 제한되었다. 결과적으로 디벨로퍼는 상당한 자기 자본 투입이 필요로 하였다.

이러한 디벨로퍼의 역할 감소와 자금력에 대한 요구는 진정한 전문 부동산 개발회사의 출현을 제한시켰다. 낮은 시장 위험과 낮은 인허가 위험은 대형 건설회사가 더욱 적극적으로 개발 사업에 뛰어들도록 하는 계기가 되었으며, 이들은 재정 능력과 대량 건설 역량을 바탕으로 한국의 부동산 개발 산업에서 주도적인 역할을 발휘하게 되었다. 결국 이러한 대형 건설회사는 존재는 정부의 독점적인 토지개발과 더불어서 짧은 기간 내 광범위한 부동산 개발을 가능케 하는 원동력이 되었다.

한국이 현재 안정된 경제 성장과 인구 성장세를 보이고 있으며 앞으로 한국 부동산 개발 산업 특성은 과거와는 차별화된 특성을 가지게 될 것이다. 즉, 개발에 있어서의 '가치 극대화'에 대한 노하우와 디벨로퍼의 재정능력이 더욱 중요해짐에 따라 신용제약과 비전문적인 디벨로퍼는 시장에서 퇴출되고, 전문 지식과 재무 건전성을 보유한 디벨로퍼가 출현하여 부동산 시장을 지배하게 될 것으로

예상된다. 최근 들어 이와 같은 전환의 조짐이 나타나고 있기는 하나 선진국과 같은 완전한 전환이 이루어지기 위해서는 아직 여러 어려움이 따를 것으로 생각된다.

주요어 : 부동산 개발산업, 부동산 디벨로퍼, 건설회사, 정부의 개입, 실물시장, 자본시장, 한국

학 번 : 2008-31071