Korean Institutional Investors and Real Estate Investments

by

Sangwook Nam

B.A., Political Science and Diplomacy, 2005
Yonsei University

Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development
at the
Massachusetts Institute of Technology

September, 2014

©2014 Sangwook Nam
All rights reserved

The author hereby grants to MIT permission to reproduce and to distribute publicly paper and electronic copies of this thesis document in whole or in part in any medium now known or hereafter created.

Signature of Author______________________________________________________________
Center for Real Estate
July 30, 2014

Certified by______________________________________________________________
David Geltner
Professor of Real Estate Finance, Department of Urban Studies and Planning
Thesis Supervisor

Accepted by______________________________________________________________
Albert Saiz
Chair, MSRED Committee, Interdepartmental Degree Program in Real Estate Development
Korean Institutional Investors and Real Estate Investments

by

Sangwook Nam

Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate on July 30, 2014 in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

ABSTRACT

Korean institutional investors comprise one of the major investor groups in the financial market. Given their characteristics and constraints, asset allocation of such institutional investors is dominated by ‘traditional assets’ such as stocks, bonds and cash. The recent global financial crisis increased uncertainty, and corresponding low interest rate trends have made it difficult for institutions to meet their own required returns. To accomplish higher and more stable return profiles, major institutional investors in Korea have begun restructuring asset allocation strategies, moving toward greater exposure in the real estate sector.

In the context of this trend, where do Korean institutional investors stand on real estate investment? This thesis attempts to cast light on the current and future approaches to real estate investments by the major institutional investors in Korea, including major pension funds and insurance companies. To achieve this goal, the thesis is largely composed of two parts: (i) a prior investigation of real estate and Korean institutional investors with academic literatures and industry data and (ii) comprehensive interviews with Korean institutional investors and their external partners.

As a prior investigation, academic literatures show that despite drawbacks, investments in real estate have clear benefits for institutional investors. The industry data clearly demonstrates that the growth of Korean investors’ assets under management, intensifying competition in domestic markets, and recent low-interest market environments have all led Korean institutional investors to pay more attention to the global markets. Their real estate investment practices in the global market have been diversified in terms of the destination and property types.

Analyzing key interview findings, the study reorganizes practical industry applications and compares them with the prior investigation. The thesis concludes that Korean institutional investors have attempted to establish their own asset allocation strategies based on each unique investment appetite and liability.

Thesis Supervisor:  David Geltner
Title:  Professor of Real Estate Finance
ACKNOWLEDGEMENT

First and foremost, I would like to thank my thesis advisor, Professor David Geltner for his guidance and enthusiasm throughout the summer. His academic insights inspired me to explore interesting topics further. It was a great pleasure to have been able to learn from him.

I am indebted to all the interviewees who contributed their time and shared invaluable industry experiences (and preferred to remain anonymous).

Many thanks are owed to Real Capital Analytics for supplying the data essential for completing the thesis.

I would also like to thank Sam Davis for his advice about real estate investment practices of US insurance companies.

Lastly, and most importantly, my deepest and sincerest thanks to each member of my family for their love and support during my time at MIT.
# TABLE OF CONTENTS

CHAPTER 1. INTRODUCTION ........................................................................................................... 7  
1.1 Research Motivation ............................................................................................................. 7  
1.2 Research Outline .................................................................................................................. 8  

CHAPTER 2. LITERATURE REVIEW: WHY REAL ESTATE? ......................................................... 10  
2.1 Disadvantages ...................................................................................................................... 10  
2.2 Advantages .......................................................................................................................... 10  
  2.1.1 Diversification ............................................................................................................... 11  
  2.1.2 Income Generation ........................................................................................................ 12  
  2.1.3 Inflation Hedge .............................................................................................................. 12  
  2.1.4 Important Component of the Investable Universe ......................................................... 13  

CHAPTER 3. INVESTIGATION INTO KOREAN INSTITUTIONAL .................................................. 14  
3.1 Global Institutional Investors .............................................................................................. 14  
  3.1.1 General Trends .............................................................................................................. 14  
  3.1.2 Inbound Investment into Korea ..................................................................................... 16  
3.2 Korean Institutional Investors ............................................................................................ 17  
  3.2.1 Major Players .............................................................................................................. 17  
  3.2.2 History of Real Estate Investment by Korean Institutional Investors ....................... 21  
  3.2.3 Outbound Investment from Korea ............................................................................... 22  

CHAPTER 4. RESEARCH DESIGN ............................................................................................... 27  
4.1 Objective .............................................................................................................................. 27  
4.2 Interviewee Selection and profile ....................................................................................... 27  
4.3 Methodology ....................................................................................................................... 29  

CHAPTER 5. INTERVIEW FINDINGS AND ANALYSIS ............................................................... 30  
5.1 Korean Institutional Investors ........................................................................................... 30  
  5.1.1 Rationale for Real Estate Investment ............................................................................. 30  
  5.1.2 Asset Allocation to Real Estate ...................................................................................... 33  
  5.1.3 Practical Issues in Implementation of Investment Strategies ..................................... 36
5.2 External Partners ........................................................................................................................................ 42
  5.2.1 Investment Management Firm ..................................................................................................... 43
  5.2.2 Real Estate Service Provider ....................................................................................................... 46

CHAPTER 6. SUMMARY & CONCLUSION .............................................................................................. 47

BIBLIOGRAPHY ............................................................................................................................................. 50

APPENDIX: INTERVIEW GUIDELINES AND QUESTIONNAIRES ....................................................... 53
**LIST OF EXHIBITS**

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhibit 1.</td>
<td>Correlation Coefficient</td>
<td>11</td>
</tr>
<tr>
<td>Exhibit 2.</td>
<td>Global Transaction Volume of Commercial Real Estate</td>
<td>15</td>
</tr>
<tr>
<td>Exhibit 3.</td>
<td>Global Capital into Korean Commercial Real Estate</td>
<td>17</td>
</tr>
<tr>
<td>Exhibit 4.</td>
<td>Major Public Pension Funds and Mutual Aid Associations in Korea</td>
<td>18</td>
</tr>
<tr>
<td>Exhibit 5.</td>
<td>Major Life Insurance Companies in Korea</td>
<td>19</td>
</tr>
<tr>
<td>Exhibit 6.</td>
<td>History of Commercial Real Estate Investment in Korea</td>
<td>21</td>
</tr>
<tr>
<td>Exhibit 7.</td>
<td>Cap Rate Spread Trend – Korea and the U.S.</td>
<td>23</td>
</tr>
<tr>
<td>Exhibit 8.</td>
<td>Overseas Investment by Korean Institutional Investors</td>
<td>23</td>
</tr>
<tr>
<td>Exhibit 9.</td>
<td>Net Increase in Real estate fund by AUM</td>
<td>24</td>
</tr>
<tr>
<td>Exhibit 10.</td>
<td>Korean Capital into Global Commercial Real Estate by Property Type</td>
<td>24</td>
</tr>
<tr>
<td>Exhibit 11.</td>
<td>Korean Capital into Global Commercial Real Estate by Region</td>
<td>25</td>
</tr>
<tr>
<td>Exhibit 12.</td>
<td>Major overseas real estate investments by Korean investors</td>
<td>25</td>
</tr>
<tr>
<td>Exhibit 13.</td>
<td>Respondent Profile</td>
<td>28</td>
</tr>
<tr>
<td>Exhibit 15.</td>
<td>The benchmarks of the NPS</td>
<td>42</td>
</tr>
<tr>
<td>Exhibit 16.</td>
<td>Co-work Structure – General Format</td>
<td>43</td>
</tr>
<tr>
<td>Exhibit 17.</td>
<td>Summary of Interview Findings</td>
<td>48</td>
</tr>
</tbody>
</table>
CHAPTER 1. INTRODUCTION

1.1 Research Motivation

Institutional investors have played a significant role in the global financial market. They have been an essential in providing liquidity to the market. Korean institutional investors also emerged as a critical group in the investment industry in and out of Korea. Since the late 1990s, after experiencing ups and downs in several financial crises from the Asian currency turmoil in 1998 and the recent sub-prime mortgage crisis in 2008, the Korean capital market has been refined quantitatively as well as qualitatively. Based on their exploding assets under management, Korean institutional investors are actively expanding their investment horizons. Correspondingly, their status in both Korean and global financial markets has been gradually elevated.

Categorically, each Korean institutional investor has its own constraints and issues to be solved. These make their fundamental investment approaches and strategies slightly different. For example, the National Pension Service of Korea (NPS), the largest institutional investors in Korea and the third largest pension fund in the world with $380 billion in assets as of late 2013, has been facing growing concerns that the fund is expected to be depleted in 30 years due to diminishing birth rates and the retiring baby-boomer generation in Korea. Furthermore, due to recent low interest rates, Korean insurance companies are currently struggling with ‘reverse margin,’ in which their investment return is lower than their insurance proceeds.

In addition to their own obstacles, growing uncertainty amid Fed tapering makes the investors attempt to boost their investment return while achieving sound risk profiles. Korean institutional investors are paying attention to ‘alternative assets’. In other words, they are in competition to source new investment pipelines other than traditional assets such as stocks and bonds. Real estate especially draws significant attention from Korean institutional investors for its ‘mid-risk and mid-return’ characteristic, compared to stocks and bonds.

From the overall Korean financial industry perspective, however, relatively few attempts have been made to shed light on the direction of and implications to real estate investment. Therefore, this thesis will delve into the dynamic structure of Korean institutional investors’ stances on real estate as being one of the critical investible asset classes.
In order to sufficiently address the issues raised, this study included a series of open-ended and in-depth interviews and investigations among major Korean institutional investors conducted in June and July of 2014. Through these interviews, the thesis aims to answer the following questions:

1. What are the underlying rationales for Korean institutional investors to allocate their assets to real estate?
2. How do they allocate their capital to real estate?
   - Strategic and tactical asset allocation process
   - Investment structure, sector, styles, geographic regions
3. How do they handle relevant issues to achieve successful asset allocation?
   - Outsourcing
   - Deal sourcing
   - Decision making criteria and process
   - Risk management
   - Performance evaluation
4. How do they collaborate with external partners such as investment managers and real estate service providers?

1.2 Research Outline

The thesis starts with the introduction in chapter 1 which includes the research motivation and an outline of the overall thesis.

Chapter 2 follows as an academic literature review of the background information from research papers and academic journals. The author identifies characteristics of real estate as an investment asset by reviewing its advantages and disadvantages as an asset class.

Chapter 3 seeks a better understanding of the “Korean institutional investors” and their current state of real estate investment. The author investigates who the players are and how have they approached real estate investment in and out of Korea.
Chapter 4 provides the overall interview design. This chapter contains an explanation of the goals and methodology, interviewee selection criteria, and general information on survey respondents. Survey questions are also summarized by each topic.

Chapter 5 contains an analysis of the interview findings. The author reorganizes and analyzes the answers from each interviewee by topic, including the rationale of allocating their assets to real estate, the way to actually implement their asset-allocation strategies, and several issues regarding their real estate investments. The chapter also includes the industry landscape of the two major external partners, the investment management firm, and the real estate service providers.

Chapter 6 comprises the summary and conclusion. It summarizes the previous chapters, discusses key findings from previous chapters, and identifies topics for further study.
CHAPTER 2. LITERATURE REVIEW: WHY REAL ESTATE?

This thesis attempts to shed light on the characteristics of Korean institutional investors and their investment approach to real estate assets. As a starting point in this chapter, the author briefly reviews theoretical studies about the advantages and disadvantages of real estate as an investable asset class in the overall portfolio perspective.

2.1 Disadvantages

It has been widely accepted in both academia and the industry that real estate investment has several weaknesses as an investable asset and entails corresponding risks. In a survey conducted by Dhar and Goetzmann (2006), institutional investors identified top risk factors in real estate: illiquidity, relative lack of reliable information and resources, higher management effort/cost and fee loads, and the general absence of a performance benchmark.

2.2 Advantages

Despite some drawbacks, on the other hand, real estate is still an attractive asset class for investors. What are the benefits of having an allocation to commercial real estate within an overall portfolio, and why should investors consider such an allocation? There have been numerous discussions and analyses of the above questions regarding real estate as an investment asset.

Hudson-Wilson, Fabozzi and Gordon (2003, 2005) studied the benefits and challenges of real estate from the portfolio-allocation perspective. Bond (2007) examined historical return data from a wide range of asset classes. He finds strong support for increasing allocations towards real estate, citing that it has significantly better risk-hedging characteristics than any of the other asset classes studied. Lizieri (2013) approached the role of real estate in a portfolio after the recent financial crisis.

As an attempt to evaluate the relative attractiveness of real estate as an asset class, Dhar and Goetzmann (2006) had a qualitative approach, conducting an institutional investor survey. They found that the top five reasons for investing in real estate were diversification, inflation hedge, cash (income) generation, potential for capital gains, and long-term benefits. They also concluded that there is a strong evidence to suggest that modern portfolio theory forms the general basis for the real estate asset
allocation decision—statistical risk and return estimates and long-term performance are said to be the major determinants of the allocation decision.

As aforementioned, numerous academic research papers and industry reports have discussed the advantages of having commercial real estate within a portfolio. While several characteristics of the asset class make it an appealing investment asset, the following aspects are commonly cited as benefits of owning real estate.

2.1.1 Diversification
Historical returns shows that the NCREIF Property Index has a relatively low correlation with other asset classes; hence, real estate could be a good diversifier within portfolios with diverse groups of asset classes.

Exhibit 1. Correlation Coefficient (annual returns)$^1$

<table>
<thead>
<tr>
<th></th>
<th>Large Cap Equities</th>
<th>Midcap Equities</th>
<th>Small Cap Equities</th>
<th>Treasuries</th>
<th>Inv.Grade Corp. Bonds</th>
<th>High Yield Corp. Bonds</th>
<th>Hedge Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCREIF Property Index</td>
<td>0.15</td>
<td>0.07</td>
<td>0.08</td>
<td>-0.03</td>
<td>-0.26</td>
<td>-0.37</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Source: NCREIF, Thomson Reuters Datastream

As Exhibit 1. shows, real estate is well known for its low correlation with other asset classes, meaning it can be a good diversifier within a portfolio. Geltner (Commercial Real Estate Analysis and Investments, 3e) mentioned, “Diversification is a very important consideration for real estate investments from a broadly-mixed asset portfolio perspective. After stocks and bonds, real estate comprises the third major asset class, representing a large amount of physical capital with unique risk and return characteristics. As such, real estate gives investors the opportunity to diversify their portfolios more broadly than they could with only two major asset classes. This diversification benefits of real estate is a major reason for substantial inclusion of real estate in many large institutional portfolios.”

---

$^1$ Based on annual returns to: NCREIF Property Index, Russell Top 200 Index, Russell Midcap Index, Russell 2000, Barclays US Treasury Index, Barclays US Corp. Investment Grade Index, Barclays US Corp. High Yield Index, Dow Jones-Credit Suisse Hedge Fund Index. Correlations based on data to 2013, beginning in 1979 (equity indices), 1978 (Treasury and investment grade), 1984 (high yield), and 1994 (hedge funds).
2.1.2 Income Generation
Another reason to add real estate to investment portfolios is its ability to deliver stable cash flows to the portfolio. Hudson-Wilson, Fabozzi and Gordon (2005) argued, “Real estate is a head-and-shoulder superior producer of steady income for investors. If an investor needs to rely on earning a higher proportion of its total portfolio return from realized income versus unrealized capital appreciation, real estate is a winner.” The PREA quarterly report (Summer 2013) also covered detailed discussion on the income generating characteristics of real estate. Based on average annual total return between 1970-2010, Geltner (Commercial Real Estate Analysis and Investments, 3e) pointed out that the bulk of the return to unlevered investments in fully operational properties comes from net rental income.

2.1.3 Inflation Hedge
Although MacKinnon (2011) investigated that the empirical evidence for how well or how strongly real estate returns are positively correlated with inflation is mixed, real estate’s inflation hedging abilities have been widely believed. If realized inflation is higher than originally expected, return on real estate quickly reflects the increment of the inflation, and as a result, offsets a possible impact of lower return to other assets within a portfolio.

Case and Wachter (2007) analyze the inflation sensitivity of real estate investments, comparing them to other inflation-sensitive assets. The empirical evidence examined in the paper suggests that a variety of assets have inflation-protecting characteristics. Real estate, considered a strong inflation hedge on conceptual grounds, has in fact performed as well as, or better than, other inflation-sensitive assets in the historical sample considered, and has not exposed investors to significant directional inflation risk. Indeed, based on both empirical results and theoretical arguments, real estate provides attractive return characteristics and deserves consideration in diversified inflation-protected portfolios.

Geltner (Commercial Real Estate Analysis and Investments, 3e) mentioned, “Real estate is a relatively good inflation hedge, whereas long-term bonds are notoriously exposed to inflation risk. Thus, if real estate’s major role on the asset side of the pension fund’s balance sheet is as a diversifier, its major role to help with the liability side is often as an inflation hedge asset.”
2.1.4 Important Component of the Investable Universe

Commercial real estate is a large part of the universe of potential investments faced by institutions. In 2012, the size of the global institutional-grade commercial real estate market was estimated at over $26 trillion USD ($7.5 trillion USD in US & Canada)$^2$. For comparison, the end of 2012 total market capitalization of publicly traded equities was $55 trillion USD ($20.7 trillion in the US & Canada)$^3$.

---


$^3$ World Federation of Exchanges
CHAPTER 3. INVESTIGATION INTO KOREAN INSTITUTIONAL INVESTMENT IN REAL ESTATE

Institutional investors are defined as organizations which pool large sums of money and invest those sums in securities, real property and other investment assets. They can also include operating companies which decide to invest their profits to some degree in these types of assets. Typical investors include insurance companies, retirement or pension funds, banks, investment advisors and mutual funds.

In this chapter, the author extensively investigates who Korean institutional investors are, how they have been coping with environment changes, and what are the recent trends in their asset allocation to real estate. Before delving into that, understanding institutional investors as a whole gives a good glimpse of the landscape of the industry.

3.1 Global Institutional Investors

3.1.1 General Trends

Global institutional investors’ aggregate asset under management has been growing up to $83.2 trillion as of 2012, almost as twice as the total GDP of OECD countries, $46.1 trillion. After the sub-prime financial crisis in 2008, there has been a growing tendency among global institutional investors to expand their exposure to alternative investments such as real estate, hedge funds, commodities, and venture capital in order to cope with increased volatility in asset prices and the continuing low interest rates trend. According to the PREA (the Pension Real Estate Association), the percentage of alternative investments among members with more than $10 billion AUM increased from 14.6% in 2007 to 23% in 2012.

In this trend, plentiful capital in the global markets are increasingly flowing into commercial real estate investment market. The global transaction volume in commercial property totaled $265.5 billion in 1Q 2014, showing steady increase since the shock from the global financial crisis. Exhibit 2, from Real

---

4 Wikipedia
5 OECD reports (2013)
6 Investments in asset classes other than traditional stocks, bonds, and cash. Although the term is a relatively loose, real estate investments are generally categorized into alternative investments.
7 Real Capital Analytics, Global Capital Trends, 1Q 2014.
Capital Analytics Inc., shows the annual volume of global major real estate investment transaction volume (based on properties more than USD 10 million), and clearly indicates the strong recovery in recent years.

Exhibit 2. Global Transaction Volume of Commercial Real Estate

Narrowing down to Asia, Asian institutional investors are cash rich and control a fifth of global institutional capital. Despite their presence in the global market, with a few exceptions, their track record of investing in real estate is not as established as that of investors in the U.S. and the Europe. Many Asian investors, however, have begun to recognize the benefits of adding real estate assets to their portfolios.

In addition to the current low global interest rate trend, demographic changes such as aging of the population and the diminishing birth rates are a major motive for Asian institutional investors, mainly pension funds. In an APREA (Asian Pension Real Estate Association) report in 2010, Professor Graeme Newell from University of Western Sydney mentioned, “Major demographic changes in Asia will see Asian pension funds reassessing their current conservative asset allocations. Increased levels of real estate in their portfolios offer an important asset class for Asian pension funds to achieve portfolio diversification and meet their significantly increasing future liabilities in an effective risk-adjusted manner.”

There also are several huge institutional investors in Asia that have yet to even begin investing abroad in significant volumes. Chinese insurers, for instance, which at the end of 2012 held some $1.2 trillion in
assets, have a mandate under Chinese law to invest as much as 15 percent of these funds (or about $180 billion) in non-self-use real estate located in and out of China. In terms of international investment, the first insurance company purchase took place in July 2013 (in London). It is expected to be the first of many.\textsuperscript{8} There is also an important change in the ultraconservative stance of Japanese institutional investors. For example, the GPIF (Government Pension Investment Fund), the world's biggest pool of public-pension assets with $1.26 trillion, may be forced to diversify its portfolio away from Japanese government bonds and start investing in real estate, as a government-appointed panel recommended last 2013.\textsuperscript{9}

\textbf{3.1.2 Inbound Investment into Korea}

With the above global context in mind, the author turns to what has been going on specifically in Korea in terms of international real estate investment activity.

Foreign institutional investors emerged as a major force to take up distressed properties in Korea during the Asian currency crisis in the late 90s. Before the global financial crisis in 2008, as Korean real estate markets developed and internationalized, inbound investment into Korea gradually increased, reaching $3.5 billion in 2008.

Property types diversified, branching out from class A office buildings to retail, industrial, and development sites. After the GFC in 2008, capital inflows from global institutional investors rapidly dropped, but have stabilized at around $1 billion per year.

In spite of steady growth in the Korean real estate market, the influx of global institutional investors has remained relatively stagnant, as seen in Exhibit 3 below, based on RCA data. This may stem from intensifying competition in the market with Korean institutional investors, who have been growing both in quality and in quantity, resulting in a corresponding diminishing market attractiveness for foreign players.

\textsuperscript{8} PwC and ULI, “Emerging Trends in Real Estate Asia Pacific 2014”
3.2 Korean Institutional Investors

Next, we consider who the major Korean institutional investors are, and how they have expanded their exposure to real estate investment domestically and globally.

3.2.1 Major Players

By the source of fund and the nature of investment, Korean institutional investors can broadly be categorized into three types: (i) public pension funds and mutual aid associations, (ii) life insurance companies, and (iii) one sovereign wealth fund.\(^\text{10}\)

1) Public pension funds and mutual aid associations

The three major public pension funds in Korea refer to the National Pension Service of Korea, Korea Teachers Pension, and Government Employees Pension Service. These funds are mandatory for the eligible subjects by laws and regulations; funds defined in the National Finance Act. Apart from these three major public pension funds, there are mutual aid associations, which are established by the association members with the aim to improve the welfare of the members by the individual laws and regulations for each association. Exhibit 4 shows major public pension funds and mutual aid associations.

---

\(^\text{10}\) Corporate & private pension funds are also one of the major institutional investor groups in Korea. This thesis, however, due to limited information available for the analysis, focuses above three groups.
Exhibit 4. Major Public Pension Funds and Mutual Aid Associations in Korea - As of 2013

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Date of foundation</th>
<th>Number of Members</th>
<th>AUM ($ bil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Pension Funds</td>
<td>The National Pension Service (NPS)</td>
<td>10/19/1987</td>
<td>20,330,000</td>
<td>418.63</td>
</tr>
<tr>
<td></td>
<td>Korea Teachers Pension (KTPF)</td>
<td>01/11/1974</td>
<td>298,551</td>
<td>11.47</td>
</tr>
<tr>
<td></td>
<td>Government Employees Pension Service (GEPS)</td>
<td>2/1/1982</td>
<td>1,100,000</td>
<td>14.93</td>
</tr>
<tr>
<td>Mutual Aids Associations</td>
<td>Korea Teachers’ Credit Union (KTCU)</td>
<td>2/1/1971</td>
<td>674,548</td>
<td>22.45</td>
</tr>
<tr>
<td></td>
<td>Public Officials Benefit Association (POBA)</td>
<td>2/1/1975</td>
<td>242,000</td>
<td>6.24</td>
</tr>
<tr>
<td></td>
<td>The Military Mutual Aid Association (MMAA)</td>
<td>2/1/1984</td>
<td>180,000</td>
<td>5.87</td>
</tr>
<tr>
<td></td>
<td>The Police Mutual Aid Association (PMAA)</td>
<td>10/1/1989</td>
<td>96,563</td>
<td>1.68</td>
</tr>
<tr>
<td></td>
<td>Korea Fire Officers’ Credit Union (KFOCU)</td>
<td>10/29/1984</td>
<td>32,227</td>
<td>0.47</td>
</tr>
<tr>
<td></td>
<td>Korea Scientists &amp; Engineers Mutual-Aid Association</td>
<td>6.17.2003</td>
<td>35,057</td>
<td>1.99</td>
</tr>
</tbody>
</table>

Source: each website

Public pension funds and mutual aid associations (hereinafter pension funds) manage the paid salaries of subscribers with the defined benefit plan and return the investment profits to the subscribers. They are similar to insurance companies in terms of their long-term investment span and conservativeness in asset allocations. However, while insurance companies participate in the market focusing on lending, pension funds relatively have wider exposure to riskier investments such as equity investment and real estate development.

Target yields differ for each type of fund depending on investment constraints. While the three major public pension funds have a relatively low target yield, mutual aid associations offer relatively higher yields in order to encourage subscription. The result is that mutual aid associations invest more in alternative assets. Thus, real estate comprises a larger portion of their overall investments.

2) Life insurance companies

The most distinguishing feature of the asset management by life insurance companies is the long-term asset management cycle and focus on safety. In other words, it is essential that they are capable of paying the insurance proceeds they promised when the cause for paying insurance occurs, which is almost as
important as profitability of investment. In this sense, real estate investment by Korean Life Insurance companies have been playing not only as a ‘return enhancer’ but also as a ‘risk diversifier.’ This is in line with the modern portfolio theory. No matter what the target return of real estate investment is, adding real estate to the portfolios make the efficient frontier with the better risk and return possibilities move ‘toward the northeast’ in the risk/return diagram. This partly explains lower yields from real estate investment than average return from overall investments by Korean life insurance companies during 2013 in Exhibit 5.

Exhibit 5. Major Life Insurance Companies in Korea - 2013

<table>
<thead>
<tr>
<th>Rank</th>
<th>Name</th>
<th>AUM ($ mil.)</th>
<th>Annual return (Total)</th>
<th>Annual return (Real estate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Samsung</td>
<td>152,496</td>
<td>4.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td>2</td>
<td>Hanwha</td>
<td>62,103</td>
<td>5.2%</td>
<td>3.3%</td>
</tr>
<tr>
<td>3</td>
<td>Kyobo</td>
<td>56,305</td>
<td>5.1%</td>
<td>3.8%</td>
</tr>
<tr>
<td>4</td>
<td>NH</td>
<td>45,615</td>
<td>4.5%</td>
<td>0.9%</td>
</tr>
<tr>
<td>5</td>
<td>ING</td>
<td>16,608</td>
<td>4.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>6</td>
<td>Shinhan</td>
<td>16,077</td>
<td>5.6%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>7</td>
<td>Dongyang</td>
<td>15,288</td>
<td>5.0%</td>
<td>4.7%</td>
</tr>
<tr>
<td>8</td>
<td>Heungguk</td>
<td>14,161</td>
<td>5.3%</td>
<td>4.4%</td>
</tr>
<tr>
<td>9</td>
<td>Allianz</td>
<td>12,831</td>
<td>4.9%</td>
<td>2.8%</td>
</tr>
<tr>
<td>10</td>
<td>Mirae Asset</td>
<td>12,672</td>
<td>4.9%</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>Rest 15</td>
<td>64,234</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>468,389</td>
<td>4.7%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

Source: Korea Life Insurance Association

In this sense, ALM (Asset-Liability Matching) is the basic principle of life insurer’s asset management. Life insurance companies match the timing and duration of cash outflows by insurance proceeds and cash inflows by income generated by investments. To achieve ALM, life insurance companies invest the largest part of their operating assets in bonds. “Buy and hold” or “immunization” strategy is the backbone of the asset management of insurance companies. In other words, insurance companies manages various types of bonds that satisfy the duration of debt and exceed the estimated interest rate.
Life insurance companies remain under strict control compared to other institutional investors because of their obligation to secure their assets. For example, Life insurers are recommended to maintain RBC (Risk-Based Capital) Requirement ratio\(^\text{11}\) above 150%. In other words, risky assets are more weighted in the calculation of the ratio than risk-free assets. Equity investment and PF loans in real estate are also categorized as risky assets, so the portion of their investment in real estate needs to be limited to maintain the RBC requirements. With the limited exposure to real estate in the overall portfolio, these regulations lead life insurance companies to focus on types of real estate that provide stable income when allocating their assets to real estate.

Due to the recent low-interest trend and corresponding ‘reverse margin’\(^\text{12}\), which puts insurers in difficulties, it is gaining attention that excessive regulations on life insurance companies are hindering the improvement of insurers’ competitiveness and effective asset management. Thus, as a first step, Korean government is reviewing a possible reduction in the RBC requirement ratio from 150% to 120%, and a possible elimination of the so-called “shadow controls”\(^\text{13}\) that create ‘price ceilings’ of insurance premiums. Such deregulation could play an important role in increasing real estate investment by Korean life insurance companies in the future.

3) Sovereign Wealth Funds - KIC
The Korea Investment Corporation (KIC) is the Korean government-owned sovereign wealth fund established in 2005 to preserve and enhance the long-term purchasing power of South Korea's sovereign wealth through efficient management of public funds and foreign exchange reserve in the international financial markets. In spite of its relatively short history, the KIC is in rapid growth, with total assets under management at $72 billion at the end of 2013.\(^\text{14}\) As a sovereign wealth fund, KIC has a distinguishing feature from other Korean institutional investors mentioned above. KIC has no pending liability, and this

\(^{11}\) Risk-Based Capital Requirements (RBCR) is a type of financial prudence rule that establish minimum required liquid reserves for financial institutions, with different equity ratios as a function of the riskiness of the investment. In particular, if the insurance company places more investment in riskier assets, then it must hold a higher ratio of equity to buffer against possible losses in the risky investment. The result is less leverage in riskier investments. Placement of risk-based capital requirements ensure that each financial institution has enough capital to sustain operating losses while maintaining a safe and efficient market. (The downside of RBCR is that such rules can exacerbate a liquidity crisis in a financial downturn, as losses in the risky asset values combined with the RBCR effectively cuts off the ability of the financial institution to then lend (or invest) any more money into the economy, which can exacerbate an economic recession. The result is often pressure to relax RBCR during times of recession or financial crisis.)

\(^{12}\) Negative margin when investment returns cannot exceed the promised return to the annuitant.

\(^{13}\) Korean term to refer unwritten policies or regulations

\(^{14}\) The Sovereign Wealth Fund Institute report (2014)
gives the fund a flexibility and aggressiveness in its asset allocation strategies. KIC also invest only outside of Korea, leading KIC’s investment targets are not perfectly overlapped with other Korean institutional investors’.

### 3.2.2 History of Real Estate Investment by Korean Institutional Investors

Since the early 2000s, right after the Asian financial crisis in the late 90s, Korea’s commercial real estate market has begun to be sophisticated, and Korean institutional investors have been paying attention to real estate investment. Watching foreign investors make a huge profit from selling the blue-chip real estate properties they purchased at extremely low prices during the financial crisis, Korean institutional investors, especially insurance companies, have been taking a fresh look at real estate as an investment asset class. Various laws regulating indirect real estate investments were enacted during that period of time. REITs and real estate funds were introduced in 2001 and 2004 respectively, and this enabled Korean institutional investors to have wider choices in real estate investment. Following this trend, the NPS, Korea’s largest pension fund, made a real estate investment in an office building in Gangnam, (the now internationally famous neighborhood in Seoul). This led to the advent of full-scale real estate investment activity by many pension funds.

Exhibit 6. History of Commercial Real Estate Investment in Korea

Source: Bank of Korea, Shinyoung Asset, US Treasury, Real Capital Analytics
The cap rate in the Seoul office market shows the development and maturation of the Korean real estate market. Other than a short fluctuation during the GFC around 2008, the cap rate has been in continuous compression from around 10% in the early 2000s to around 5% in 2014. The spreads between the cap rate and Korean 5-year Treasury bonds have also gradually decreased from around 400bp to circa 200bp. These cap rate and spreads compressions come from the decrease in risk premium in the market, and has been reflected in a substantial appreciation in property transaction prices.

3.2.3 Outbound Investment from Korea
While the Korean real estate market has been maturing and absorbing considerable domestic and foreign capital, investment flow in the other direction has also been picking up, with Korean institutions placing more real estate investment capital outside of the peninsula.

1) Rationale for Overseas Investment
Marching with other Asian institutional investors, Korean institutional investors have begun to expand into overseas markets. Limited investable stocks in the domestic market and the pursuit of higher risk-adjusted returns forces investors to turn their eyes onto overseas markets.

One of the main reasons is that the Korean real estate market, despite its rapid growth, cannot meet the soaring demand for abundant investable assets by the domestic institutional investors with their growing assets under management. These shortages caused excessive competition within the investors in the domestic market, and made the investors begin to look beyond the shores.

The other primary reason Korean institutional investors are moving aggressively into overseas properties has to do with the low-interest regime. As the interest rate remains at extremely low levels largely due to the quantitative easing stances of major national monetary authorities, pension funds and other financial institutions have turned to overseas real estate markets that offer potentially higher returns.

As an extension of the recent low interest trends, the low cap rate spreads in Korea shown in the previous section motivate outbound investment by Korean institutional investors. With the GFC in 2008 as a turning point, cap rate spreads in Korea have been less than half of those in the U.S. This can provide greater positive leverage for investments in the U.S. compared to Korea.
2) Trends in Overseas Investment

As of the 3rd quarter of 2013, Korea is the 7th largest cross-border purchaser in the world to invest in commercial real estate properties. Korean institutional capital invested into global real estate assets showed rapid growth after the GFC, reaching circa $6 billion in 2013, as shown in Exhibit 8.

Exhibit 8. Overseas Investment by Korean Institutional Investors (2014 year to date)

This outflow of capital has stimulated a sharp growth in a major type of investment vehicle, real estate funds. Exhibit 9 shows that the total assets under management by real estate funds created just in 2013 already exceeds $4 billion.

15 Global Capital Markets Research, Q3 2013, Jones Lang LaSalle
The increasing trend in investment volume reflects the appetite of Korean institutional investors. Investment by Korean institutional investors is still targeted to class A office buildings in major global cities, but recent transactions show some diversification in property types and geographical region.

As for property types, while class A offices remain a major investment asset for the institutions, other product types including the retail, industrial, apartment, and hotel are beginning to represent an increasing share of the total investment. From 2009 to 2013, the assets other than offices have occupied from 30% to 50% of the total portfolios. Exhibit 10 demonstrates the diversifying trends.

Source: Real Capital Analytics
As for the geographical region, as shown in Exhibit 11 and 12, the global gateway cities in North America and Europe such as New York and London have been a major focus for Korean Institutional investors, due to their large pool of investment grade asset and easier access to proper information. On the other hand, the investors have gradually extended their investment scope beyond these core cities to the secondary cities in developed markets and/or major cities in developing countries. This regional diversification can partly be explained by the needs for value added and opportunity investment, accumulated experience in the global market, and broadened networks with local partners.

Exhibit 11. Korean Capital into Global Commercial Real Estate by Geographical Region

![Diagram](chart.png)

Source: Real Capital Analytics

Exhibit 12. Major overseas real estate investments by Korean institutional investors in 2013

<table>
<thead>
<tr>
<th>Month</th>
<th>Property type</th>
<th>Region</th>
<th>Property Name</th>
<th>Inv. Volume ($ mil)</th>
<th>Key investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb</td>
<td>Office</td>
<td>Melbourne, Australia</td>
<td>City Westpolis Complex</td>
<td>16</td>
<td>Korea Post, POBA</td>
</tr>
<tr>
<td>March</td>
<td>Office</td>
<td>London, UK</td>
<td>Ropemaker Place</td>
<td>250</td>
<td>Hanwha Life Insurance</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>Chicago, USA</td>
<td>225 West Wacker</td>
<td>120</td>
<td>NH Life Insurance, POBA</td>
</tr>
</tbody>
</table>

16 Developed Core: Gateway cities in developed countries (e.g. New York, London)
Developed Secondary: Other cities than gateway cities in developed countries (e.g. Boston, Seattle, Berlin)
Developing: Major cities in developing countries (e.g. Shanghai, Kuala Lumpur, Ho Chi Min)

17 The investment volume is estimated purchase price based on newspaper articles. Therefore, the actual investment price could be varied if the investor used leverage.
<table>
<thead>
<tr>
<th>Month</th>
<th>Property type</th>
<th>Region</th>
<th>Property Name</th>
<th>Inv. Volume ($ mil)(^{18})</th>
<th>Key investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>Office</td>
<td>Shanghai, China</td>
<td>Central Plaza</td>
<td>270</td>
<td>NPS</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>London, UK</td>
<td>30 Crown Place</td>
<td>122</td>
<td>Samsung/Kyobo/Shinhan Life Insurance</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>Houston, USA</td>
<td>BG Group Place</td>
<td>480</td>
<td>NPS</td>
</tr>
<tr>
<td>May</td>
<td>Hotel</td>
<td>UK</td>
<td>61 Holiday Inn Hotels</td>
<td>160</td>
<td>KTCU, Dongbu Life Insurance</td>
</tr>
<tr>
<td>June</td>
<td>Retail</td>
<td>New South Wales, AUS</td>
<td>Erina fair</td>
<td>410</td>
<td>NPS</td>
</tr>
<tr>
<td></td>
<td>Retail</td>
<td>Singapore</td>
<td>-</td>
<td>-</td>
<td>NPS</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>Frankfurt, GER</td>
<td>Gallileo Tower</td>
<td>230</td>
<td>KTPF</td>
</tr>
<tr>
<td>July</td>
<td>Office</td>
<td>London, UK</td>
<td>30 Gresham</td>
<td>520</td>
<td>Samsung Life Insurance</td>
</tr>
<tr>
<td></td>
<td>Condo</td>
<td>Washington DC, USA</td>
<td>Washington Harbor</td>
<td>225</td>
<td>Korea Post</td>
</tr>
<tr>
<td></td>
<td>Hotel</td>
<td>Sydney, AUS</td>
<td>Four Seasons</td>
<td>375</td>
<td>Mirae Asset Life Insurance</td>
</tr>
<tr>
<td></td>
<td>MBS</td>
<td>-</td>
<td>-</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td>August</td>
<td>Office</td>
<td>Paris, FRA</td>
<td>Bouygues Telecom Building</td>
<td>413</td>
<td>NPS</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>London, UK</td>
<td>Harbor Design Center</td>
<td>125</td>
<td>Community Credit Cooperative</td>
</tr>
<tr>
<td></td>
<td>Loan</td>
<td>-</td>
<td>-</td>
<td>133</td>
<td>-</td>
</tr>
<tr>
<td>Sept</td>
<td>Office</td>
<td>Munchen, GER</td>
<td>Siemens Building</td>
<td>220</td>
<td>NPS</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>Chicago, USA</td>
<td>Accenture Building</td>
<td>196</td>
<td>Korea Post</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>New York, USA</td>
<td>46th Street</td>
<td>84</td>
<td>KTCU, KSEMAA</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>London, UK</td>
<td>Waterside Building</td>
<td>170</td>
<td>Community Credit Cooperative</td>
</tr>
<tr>
<td>Nov</td>
<td>Office</td>
<td>New York, USA</td>
<td>Manhattan 101 AOA Building</td>
<td>90</td>
<td>KTCU</td>
</tr>
<tr>
<td>Dec</td>
<td>Loan</td>
<td>London, UK</td>
<td>-</td>
<td>78</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Loan</td>
<td>California, USA</td>
<td>-</td>
<td>22</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Office</td>
<td>Washington DC, USA</td>
<td>Westbridge Building</td>
<td>197</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Korea Financial Investment Association, News articles

\(^{18}\) The investment volume is estimated purchase price based on newspaper articles. Therefore, the actual investment price could be varied if the investor used leverage.
CHAPTER 4. RESEARCH DESIGN

4.1 Objective

In order to better understand Korean institutional investors’ approach to real estate investment, the author conducted in-depth interviews with real estate investment professionals in Korean financial institutions and their external partners. The primary goal of the serial interviews is to explore the Korean institutional investors’ perspective on real estate investment, the reasoning behind their asset allocation strategies, and the practical investment activities. Furthermore, the author seeks to investigate several issues when applying asset allocation strategy and prospective trends of the industry.

4.2 Interviewee Selection and profile

Most institutional investors, by their intrinsic attributes, are known to be closed and secretive. Therefore, it is not an easy task to conduct in-depth interviews with such institutions and make them share their own investment strategies and straightforward opinions. The interviews’ results have been collected and analyzed thanks to the cooperation of several Korean institutional investors and their external partners. The target interviewees are selected by the author based on their investment volume (AUM) and activeness in the industry. Among them, six institutional investors, five investment managers, and two real estate service providers agreed to interviews.

In order to seek comprehensive feedback from them as much as possible, the author scheduled open-ended and direct interviews with diversified institutional investor groups including pension funds and insurance companies with wide spectrums of constraints and company size. Moreover, the author interviewed third-party investment managers who have been working closely with such investors. By adding interviews with the external partners, answers from both sides can be cross-checked and compared with each other. The interview responses are analyzed to understand several topics ranging from the investment objectives and risk spectrum to future trends in institutional investors’ exposure into real estate. Exhibit 13 summarizes the interviewee profile.
<table>
<thead>
<tr>
<th></th>
<th>Institutional Investors</th>
<th>External Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Investment Managers</td>
</tr>
<tr>
<td>1</td>
<td>One of the top 3 Public Pension Funds</td>
<td>Korea-based major investment management firm - an affiliates of large financial group</td>
</tr>
<tr>
<td>2</td>
<td>One of the top 6 Mutual Aid Associations</td>
<td>Korea-based major investment management firm</td>
</tr>
<tr>
<td>3</td>
<td>A Sovereign Wealth Fund</td>
<td>Korea &amp; US-based investment management firm - specialized in real estate</td>
</tr>
<tr>
<td>4</td>
<td>One of the top 5 Life Insurance companies - an affiliates of conglomerate</td>
<td>Asia-based Real estate investment management firm</td>
</tr>
<tr>
<td>5</td>
<td>One of the top 5 Life Insurance companies - an affiliates of conglomerate</td>
<td>Asia-based alternative investment management firm</td>
</tr>
<tr>
<td>6</td>
<td>One of the top 10 Life Insurance companies - an affiliates of large financial group</td>
<td>-</td>
</tr>
</tbody>
</table>
4.3 Methodology

1) Open-ended interviews were chosen over the multiple choice questionnaire because of
   - A limited sample size of Korean institutional investors who were willing to share their approach to real estate in and out of Korea.
   - The ability to lead free and open discussion and explore new perspectives and issues.
   - The ability to eliminate bias associated with multiple choice questions.
2) In order to help interviewees expand their ideas, selected answers were prepared but not presented until requested.
3) Confidentiality was promised to the interviewees; thus the findings are in aggregated form only, and no identifying information is contained.
3) Based on each interview’s progress, some interview questions were varied or skipped.
4) The interviews were conducted mostly in person, except for phone interview. Some were supplemented by follow-up emails.
5) The interviews were conducted from late June to mid-July, 2014 and were held mostly in Korea with some in the U.S.
6) Interviews typically lasted 30 to 50 minutes.
CHAPTER 5. INTERVIEW FINDINGS AND ANALYSIS

5.1 Korean Institutional Investors
Six Korean institutional investors were asked several questions about reasons for real estate investment, their asset allocation strategies, and practical issues in executing investment strategies.

5.1.1 Rationale for Real Estate Investment
The interview starts with the pros and cons of real estate investment.

1) Most Compelling Reasons of Real Estate Investment
Each of six respondents showed a slight difference in interest or activeness in real estate investment. However, they also expressed some commonalities. To summarize, these include the value-preservation function as a “real asset” and the “diversification effect.”

First, the respondents focused on the real estate’s value as a “real asset.” The physical substance of real estate property itself exists, and most of the values as an investment asset are created from this. Because it has the value as an intangible asset, real estate is considered to have relatively low downside risk compared to other financial assets. This is in line with the hedge against inflation, which is one of the advantages of real estate as an investment asset class.

One interviewee said, “Basically, the real estate is the asset made for the actual use before it is an investment asset. Office buildings for businesses, shopping center for stores, and house as a living foundation of a family, etc., most of the assets each have definite uses. Therefore, I think that there always exists the predictable constant demand.” Respondents focused on how this built-in protection prevents a complete market collapse even when macroeconomics enters a bad cycle.

However, the investors’ trust in the alleviation of downward rigidity or the volatility of real estate showed a slight difference between the historical cases and existing academic research. The result was slightly different from the cases involving actual price slumps during various financial crises and from the result of academic research highlighting that the risk of price fluctuations is not small compared to other assets.

Another reason mentioned by the respondents is that real estate assets provide diversity as investment assets. The interviewees are looking to the future where real estate can provide an attractive risk-return
profile in their overall portfolios and create diversity by moving in a different direction than major investment assets, such as stocks or bonds. Similar conclusions have been drawn about the “diversification effect” of real estate in the existing academic and business research. Additionally, real estate assets provide the diversification effect within the real estate portfolio itself. In other words, the investors think that various approaches adjusted to specific needs and strategy is possible because real estate provides a wide variety of options, such as region, product type, and leasing structure.

One investor said, “The real estate market comprises a large part of the investment assets of the world, next to the stock or bond market. Some global investors who are aggressive to the real estate construct sufficiently effective portfolios within the real estate itself. Although our company has been focused only on the safer assets, I have been observing the investment opportunity all the time and persuaded the board of directors.”

Another interviewee from the insurance company said, “Due to the decline of overall earnings recently, we are paying more attention to sources which could produce higher yield than traditional bonds. I consider the real estate as a potential higher income producer at the same time adjusting the various durations of insurance products.”

One thing in relation to diversification mentioned by the respondents is the structural instability in the Korean market, which is derived from its relative narrowness. Since the share of institutional investors in the Korean stock and bond market is very large, there has been a wide concern of potential price collapse and the resulting economic chaos if investors unexpectedly go off the market. In other words, the domestic market is structurally vulnerable to the unexpected events faced by these investors as they secure liquidity and thus need to sell their assets simultaneously in order to cope with, for instance, the rapid increase of imminent annuity and liability, or with the financial crises.

This concern forces the major institutional investors of Korea to review the portfolios and diversify that into the alternative assets and overseas market. Especially, the NPS, referred to as a ‘dinosaur inside a pond,’ is leading an effort to disperse its vast assets.

2) Greatest Challenges of Real Estate Investment/ Limitations in Practical Implementation

On the other hand, the reasons that these institutions keep aloof about real estate investment are largely summarized as “difficulty in measuring the performance,” “lack of professional competency of real estate asset,” and “difficulty in control and management.”
First of all, the interviewees have commonly pointed out that it is hard to clearly measure the achievement on real asset investment. Although the real estate asset is recognized as having a higher Sharpe ratio and higher risk-adjusted return, this is not regarded as an advantage from a real estate investment at work. In another sense, the return of real estate investment is calculated by adding the ‘income gain from cash flow’ and the ‘capital gain,’ but it is hard to precisely evaluate the increased value. Along with the return, the volatility is also considered to have no standard to judge objectively. In fact, the laws related to the Korean financial investment and capital markets accept exceptions for book valuations of alternative investments, including real estate, unlike traditional assets that should be evaluated at the fair value. Among the respondents, the NPS is the only institution using the fair value method.

One investor added, “The real estate investment is hard to obtain accurate information in relation to the market value because it is not a transparent and open market like stock and bond, and we can objectively check the rate of return only after at least 4 to 5 years of investment. Even if there is a capital appreciation, the value is just an estimated amount.”

Another interviewee said, “Everyone knows that real estate should be approached in a long-term. But, from the perspective of management that gives importance to immediate and tangible results, real estate may not be an attractive asset.

This difficulty in measuring the investment outcome makes institutional investors hesitate to venture into real estate investment. This performance measurement issue is highly related to the duty of publication as a public entity under the regulation of the government, relatively short tenure of the management, and the incentive systems for the internal investment managers.

Another reason that makes one hesitant about real estate investment is that complete control of the assets is not attainable. This seems result from the special characteristics from the ‘locality’ of each asset. Especially in the case of overseas investment, the investors lack sufficient local expertise and are prone to lose control in major decision-making throughout acquisition, property management, and disposition phases. The corresponding cost is incurred while securing a local partner or deploying manpower, which is not needed for stock or bond investment.

One investor commented on this. “Stocks or bonds has similar characteristic even though the scale of investment grows, it has lesser burden on the expansion of an organization. Contrarily, for the real estate, the internal ability should back up to cover various deals in domestic and overseas markets. This limits
Korean institutional investors to concentrate on familiar markets, property types, and investment structures. Eventually the competition among these institutional investors with similar preference gets intensified with limited investment targets.”

An interesting point is that the liquidity and transaction costs are not great obstacles for investors. In other words, the interviewed institutional investors characteristically all aimed at the middle and long-term investment, and they focused on stable cash rather than liquidity through real estate investment.

An interviewee from an insurance company explained this well, “Anyway, there are another asset classes to secure liquidity. We don’t try to sell the real estate when we need liquidity. For the underpriced assets, they will try look into the capital gain in future and carry it on, while for outperforming assets, again, they will not easily try to sell since the reinvestment risk and opportunity cost for the alternative are huge.

In the same context, the relatively long period of time and expense necessary for transactions definitely exist, but the investors think that this can more than offset the long-term investment returns.

5.1.2 Asset Allocation to Real Estate
The author researched how the six institutional investors set the direction of asset allocation to real estate and how such a policy specifically appears in an actual investment portfolio.

Although Korean institutional investors have a medium and long-term asset allocation strategy regarding real estate, most of the strategies shows abstract and overall directive vision instead of showing clear objectives. Actually, only one among the respondents updates three to five year asset allocation strategy every year and allocates assets to real estate according to the yearly policy. The other five institutions have a relatively lenient stance regarding investment weight, targeted region and property type, and investment structure. It means they are focusing more on the tactical asset allocation of each deal level rather than on strategic asset allocation.

1) Percentage Allocation to Real Estate
The weight of real estate investment among their total capital was very different among institutions to which interviewees belong. In the case of insurance companies, they mostly invested in real estate at 2%-3%. Other respondents who invested in pension funds and mutual aid association responded that it is about 3%-10%.
These differences are thought to be based on different propensity of the investors. In the case of insurance companies, they have very conservative investment tendencies and traditionally have high weight in bond investment. Some capital for real estate is allocated for a diversified investment purpose, but it is limited to properties that produce stable cash flow. One thing to note is that insurance companies own many offices in the domestic market, so if it is taken into consideration, their real estate investment weight will become quite high. However, it is not classified for investment purposes. Korean insurance companies, which are usually a subsidiary company of leading conglomerates group, own offices complying with group’s policy, and in fact, their estates are counted as a business operation asset rather than as an investment asset.

In the case of public pension funds, they have much more interest in expansion in real estate in order for investment diversification and profit enhancement purposes, but due to rising social concern regarding stability of public pension funds, they are cautious about actively expanding the weight to the less identified assets.

Mutual aid associations, on the other hand, are firm on their active stance regarding alternative investments, such as real estate, because they have looser government regulation and higher promised interest rates compared to public pension fund.

In addition, in the case of KIC, they have a more flexible stance with no explicit limit or boundary of investment weight based on their asset allocation strategy. It seems this is because they have less pressure from regulation due to their characteristic highly lenient asset management for being a sovereign wealth fund; they also do not have direct liability to the recipients.

2) Investment Style, Property Type, and Geographical location
Their current investment in real estate in general is somewhat cautious; however, all respondents agreed on the need for diverse investment style. It is judged that a more assertive approach would be possible in the future after accumulating investment experience.

All six respondents mentioned “core investment style” as the most important and basic style. Therefore, they mostly prefer class-A offices located at the core areas of both domestic and international gates, always within cities. All six institutions’ current portfolios included class-A offices in Seoul and other core cities abroad. They mentioned the following reasons for their core investment approach.
  - Core cities always have been the most attractive destinations for blue-chip tenants.
- Leasing structure is simplified, and cash flows can be predictable.
- Comparatively, they are the most standardized and easy-to-manage properties.

One respondent said, “The prime office in core region is an attractive investment for its income gain itself before its capital gain. If it is not a severely exaggerated market situation, we always put it in a priority.”

Another respondent added, “Class A office markets in developed cities are always a seller’s market which has intense competition. In the past, most office products were consumed locally. Now Korean investors are starting to express interest in offices abroad. Additionally, from the global financial crisis in 2008 as a starting point, local deal information is provided almost in a real time basis to Korean institutional investors. There are fierce competitions and mind games even among Korean institutional investors.

As shown in the chapter 3, the interviewees agreed that the compression of cap rate spreads due to price increases in the domestic office market can partly explain the rising interest in core assets abroad.

Respondents think that prime offices in a core region will remain as the most important investment asset, but their investment spectrum also is spreading toward a value-added style. Recently, other usages for office spaces, such as for shopping malls, hotels, and warehouses, are also examined frequently. In terms of regions, from London and New York concentrated investment, it is now also increasingly focused on items at secondary cities in the US, Europe, and the core cities of Asia. However, investments on value-added items are still cautious. They prefer a joint investment approach after securing reliable partners and investment managers in the local market.

Investment in opportunistic assets is actively reviewed by some mutual aid associations, but other investors are still in a cautious stance. One investor said, “Our company as an insurer is working on a high-rise office development project in a developing country, but it is an extremely exceptional case. Since it is a group-wide decision, it is worked on internally as a separate project rather than managed in the general investment portfolio.

3) Investment Structure
Based on the interviews with the respondents, Korean institutional investor’s understandings of various investment means is increasing, and they are trying to apply it. However, they are not fully optimizing the investment structure for their own investment strategy since they lack enough investment experience in
applying various structures and understanding local markets and various types of properties, especially in
the overseas market.

The structure that respondents are most familiar with, and prefer, is syndication or a club deal in which
they jointly invest real estate funds together with one or several investors. In the case of a loan, an indirect
approach on debt products through real estate funds is most common. However, insurance companies
have long been capital suppliers in the PF and mezzanine loan market, and several aggressive mutual aid
associations are expanding more with the subordinated loan and NPL market.

One thing that was discovered from this interview is that Korean institutional investors have high interests
in a wide range of real estate products with various risk-return profiles, such as REITs and CMBS other
than just equity investment. It shows their growing needs and their concerns of rebalancing their
portfolios to cope with the ever-changing investment environment.

In this regard, one investor said, “Internally, there is a growing interest in diverse investment types, but
there is lack of sound sourcing channels which provide quality investment items on various investment
types.”

Most respondents did not prefer owning properties through direct investment. There are quite a few
properties in domestic markets in direct ownership. However, for overseas investment with a lack of local
expertise, they prefer using indirect vehicles to allocate their capital. Actually, only some large investors
among respondents who have somewhat developed overseas networks are trying to maintain certain
levels of direct investment weight. Especially in the case of insurance companies, they are hesitant about
direct investment due to the insurance company laws that very strictly limit direct investment on real
estate properties.

5.1.3 Practical Issues in Implementation of Investment Strategies

1) Outsourcing

For most institutional investors, outsourcing is not a choice but a necessity because it is virtually
impossible to manage the massive portfolio with limited internal managers. Also, successful outsourcing
provides expertise and efficiency in investment. Outsourcing is actually being done in almost all cycles of
the investment process, and it has a very wide scope, including not only consignment operation of
investment assets for the external investment managers, but also market analysis before and after the
investments and consultation regarding laws and taxes. This interview listened to investors’ opinions centered on outsourcing for investment managers.

Although all respondents said outsourcing is a critical factor for effective portfolio management, not many of the institutions have specific internal guidelines or policies for outsourcing. The NPS and KIC have a pool of external investment managers and managed them based on yearly performance, but most other institutional investors lack clear policy and do not put effort into actively looking for optimized third-party investment managers that fit their needs. It showed that they consign to the investment managers who deal sources per deal, or they are absolutely depending on the previous working experiences and reputations of investment managers. It is analyzed that under a situation where co-investment is most common, there was little motive to actively look for external managers for small and medium investors other than those for the main investor who leads the deal to develop active outsourcing strategy.

An interesting point is that, although Korean investors agree upon the importance of outsourcing, their approaches to outsourcing are contradictory and fall into two areas: active outsourcing and active development of in-house capacity. For example, in the case of the NPS, they are gradually expanding internal manpower in order to strengthen control over external investment managers in order to gain transparency of fund operation.

About this, a respondent from the NPS said, “In-house capacity must be precedent in order to manage consignment are both needed. Strengthening the internal structure must be needed for securing networks and timely market information. In case of the Canada Pension Plan Investment Board (CPPIB), the amount of fund is half of the NPS, but their man power is about five times larger.”

In contrast, there are investors who seek optimization through outsourcing. One insurance company recently established an asset management firm owning 100% of shares and moved all internal investment managers to the new firm. It is explained among other investors as an attempt to enhance competence rather than just a downsizing.

In addition, respondents have a high need for qualified investment managers. It means the pool of investment managers is lacking, yet they want to make use of investment structure, such as blind funds or separate accounts, in order to improve real estate portfolio efficiency. Some large institutional investors are consigning their capital to well-known investment managers abroad using this method, but they feel
there are not many choices. They anticipate that overall quality and efficiency of outsourcing will be improved through the growth of domestic investment managers.

2) Deal Sourcing

Based on the number of deals provided, major deal sourcing routes of Korean institutional investors are categorized into three types: (i) sales brokers, (ii) domestic and international investment management firms, and (iii) domestic and international peer investors.

Six interviewees did not feel much of a burden regarding deal sourcing. They answered that investors are already well-connected with various sourcing channels directly and indirectly, much like a web, and are provided with abundant investment information from those channels.

One interviewee said, “In case of domestic market, all investment items in core areas are known after a phone call or two. Various major investment opportunities in the global markets are also introduced by diverse sources nearly in real time. We are allocating much time and physical spending in sorting out a few of them.”

On the other hand, there are opinions that it is difficult to form a competitive advantage through this kind of passive deal sourcing. As competition among investors is getting intense, it is well-estimated that attempts to look for investment opportunities preemptively by setting objectives on target investment type, style, and region will gradually increase.

One respondent said, “There is a need for the investor himself to actively look for investment items. Those provided investment information is mostly already passed by other investors or shared at the same time. Under this situation, it is hard to preoccupy blue-chip investments which other investors do not remain aware of.”

3) Decision Making

Deals that were found by investors from various sources are selected through several steps according to each of their decision-making criteria. These criteria are not only for decisions on whether to invest, but also for decisions throughout the entire investment process, including operation and disposition in order to maximize profit and minimize risk.
The important priorities that interviewees think of when they make first investment decisions are summarized as follows: (i) characteristics of target property itself, (ii) investment structure, and (iii) surrounding macro-environment.

No doubt those investors examine whether the target real estate can produce stable operating cash flows considering its location, leasing structure, and physical characteristics. Another important point is whether the investment structure is in line with the investor’s overall strategy. Investors check the style and characteristic of the investment vehicle, co-investors’ reliability, investment manager’s expertise on the property and the market, and overall fee loads for the external managers. At the same time, it is also being checked whether investors have easy access to related information for future decision making. The third point is examination on macro-environment. By probing macro-economic situations around the market, investors must not overlook whether the price is being set in the appropriate range or how the profit flow could change in the future.

These criteria are filtered at the hands-on investment manager’s level at first and then are passed through each institution’s own internal examination process. As Korean institutions’ experiences in real estate investments are accumulated, their internal decision-making processes are also becoming more standardized and systematic. Exhibit 14 is a flow chart that shows the general format of the decision-making process of Korean institutional investors.

Generally, investment management companies and service providers provide the sketched information of basic investment terms, including the property, location, market condition, and pro forma cash flows. In the basic screening, the internal investment manager briefly analyzes the suggested information on the basis of the institution’s internal investment guidelines, appetite, and personal expertise.

If the estimated risk-return profile satisfies internal criteria and guidelines, the underwriting team starts to review the details and shares the information with the back office, including the RM team, law department, and accounting department, to discuss the progress. At this detailed review stage, the investment manager in charge makes a site visit to check if the suggested deal reflects the actual operation of the property and may request the buyers or their agent (asset management firms or service provider) to provide more detailed property information.

After the detailed review, potential risks and corresponding hedging strategies are discussed in the RM committee. Reflecting the feedback from the RM committee, the investment manager develops internal documents for the investment committee. At this stage, it is common for the institution to employ advisory experts, such as an accounting firm and a law firm, for a due diligence and detailed feasibility study. In the meantime, the investment manager attempts to negotiate with stakeholders, such as the seller (or their agents) or the peer investors, to make the most positive structure for the institution.

The investment committee conducts the final decision-making stage for the potential investment. The committee members consist of the CEO, CFO, and each head of the related departments, including RM, law, and accounting. For many public pension funds, to secure public interests, external specialist boards are invited to rigorously review the potential deal.

4) Risk Management
Real estate investment timespans generally range from mid to long term, which makes effective handling of various emergent situations crucial for success of the investment. In addition, real estate investment has different risk factors from securities such as stocks and bonds, different risk management (RM) approach and decision making structure are essential. Therefore, Korean investment institutions have developed their own internal RM process and policies to effectively cope with various types of potential risks in real estate investment.

A closer look at the NPS here is warranted. Foreign exchange risk, for instance, which has been emerging as a major risk, is managed even from the early stage of setting the NPS’s long-term capital allocation strategy. They set long-term strategic hedging weight for each asset class and modify the target weight on
a yearly basis based upon market situation. Strategic hedging weight for real estate investment was 20% of the total investments in the year 2012 and 10% in the year 2013, and these have ±10% allowance. Based on this general guideline, the NPS deploys various tactical exchange risk-hedging strategies customized to the unique characteristics of each individual investment opportunity.

In order to manage major RM policies above and check on sustainability of each investment as the market changes, internal RM teams take the role of check-and-balance against internal investment division (the underwriting team). The team closely works with the underwriting team in every step of the investment decision-making process and gives opinions on every investment decision. For the on-going investments, the team also examines regular or spot operation reports from the internal investment division or from the external managers.

One respondent said, “As an investment manager in charge, the most difficult process of the internal decision-making is coordinating with RM team. Since their power and voice is the strongest, the investment decision gets very easy once they agrees on it.

5) Benchmark/ Performance Evaluation

Investment benchmark is a guideline for the institution’s capital allocation strategies before the investment and criteria for performance evaluation after the investment. The benchmarks that the six institutional investors set are different from each other. Most of their base rates are Korean Treasury rate or CPI (Consumer Price Index), and they add their own premiums, ranging from 200bp to 800bp, based on their required return. Generally, life insurance companies’ premiums are relatively low, while mutual aid associations’ premiums are set aggressively.

The NPS has the most sophisticated benchmarks among Korean institutional investors. By asset class, the NPS separated benchmarks into two benchmarks, one for long-term (more than 10 years) targets and one for performance evaluation. Exhibit 15 shows the NPS’s detailed benchmarks for real estate assets.
Exhibit 15. The benchmarks of the NPS

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Long-term Target Benchmark</th>
<th>Benchmark for Performance Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Real Estate</td>
<td>Annual inflation rate (CPI) + 5%</td>
<td>IPD(^{19}) Korea index × w(^{20}) + [Annual inflation rate(CPI)+5%] × (1-w)</td>
</tr>
<tr>
<td>Overseas Real Estate</td>
<td>Annual inflation rate (CPI) + 5%</td>
<td>Weighted average of IPD index of 7 major countries</td>
</tr>
</tbody>
</table>

Based on benchmarks, clear performance evaluation plays an integral role as a standard for continuous rebalancing of the investors’ asset allocation direction and also as a motivation for a better performance of the each internal investment manager.

Korean institutional investors, however, were slightly skeptical about quantifying precise performance evaluation of the real estate investment. The reasoning is that the fair value of the investment property cannot be periodically evaluated until it is realized at the end of the investment by selling the property.

An investor said, “In order to gain objectivity, we sometimes evaluate the property through an external service provider or appraisal company, but as a public institution, even these has a limit to be called fair value to the public. Also, external evaluators sometimes exaggerate the performance in order to maintain a good relationship with the institutional investors.”

Due to this reason, Korean institutional investors put more weight on qualitative criteria than on quantitative in determining performance measurement. Clear and objective performance measurement remains a task that Korean institutional investors must solve.

5.2 External Partners

External partners play a significant role in executing investment of institutional investors by providing them with professional services in various areas. Based on serial interviews with and additional research into two of the most important external partners, investment managers, and real estate service providers, this thesis explores the industry landscape of the external partners. Exhibit 16 illustrates the simplified co-work structure between institutional investors and the major external partners.

\(^{19}\) IPD (Investment Property Databank) is a subsidiary of MSCI (Morgan Stanley Capital International) and provides real estate performance and risk analysis. Its database holds information on 77,000+ properties, valued at $1.9 trillion, which are located in 32 countries, with a long performance history (25+ years).

\(^{20}\) 50% in 2013, increased 10%p annually to 100% in 2018
An investment manager is the main agent who operates a real estate fund, which is one of the typical vehicles when institutional investors inject their capital into real estate assets. Throughout the whole investment cycle, from setting up the fund to the termination of it, an investment manager plays a practical role in managing the fund. The real estate service provider, another essential partner to institutional investors, provides institutional investors with a wide spectrum of expert services, including brokerage, advisory, property management, and market research.

5.2.1 Investment Management Firm
With the above co-work structure with institutional investors in mind, attention is now given to the professional real estate investment management industry and related issues, as identified through the voices of the industry professionals.

1) Main works
Real estate investment management firms (investment managers) are specialized. They invest the capital, which is collected from investors, into real estate property and/or securities with underlying real estate property and return its profit from the investment to the investors. Investment managers are authorized to manage real estate funds, which are the most widely used vehicle for institutional investment. Real estate funds in Korea were first introduced in 2004 with the enactment of ‘the law of indirect investment’ and were made more sophisticated by ‘the law of capital market’ in 2009, which adopted the negative system,
leading real estate funds to cover virtually every kind of assets with real estate property. This regulatory evolution has changed the industry eco system into ‘the survival of the fittest’ and thus provides real estate investment management firms with both opportunities and challenges.

Based on the typical investment cycle of real estate funds, an investment manager’s main work can be divided into three steps: (i) deal structuring and set-up of the fund, (ii) operation of the fund, and (iii) liquidation of the fund.

In the deal-structuring phase, investment managers structure the target property into an investable asset and raise funds from investors and/or lenders to set up the real estate fund. The critical factor in this phase is to make attractive investment structures to lure investors. Recent intense competition between investment managers seeking limited investment opportunities has led investment managers to actively preoccupy investment properties by offering to the owner of the target property before offered.

In the operational phase, investment managers attempt to obtain the fund’s target return and to maximize the value of the investment property by effective property management. Investment manager’s specialized operational expertise above just physical management skills is a decisive factor for this stage.

In the exit phase, the final investment returns are realized by the disposal of the investment property. Although investment managers succeed in maximizing the value of the property, it can only be realized by capturing the best transaction timing and by choosing the right buyer.

2) Issues around the industry
The investment managers’ profit originates mainly from the fees by the investors. Therefore, the relationship with the investors, especially institutional investors, is the most critical and sensitive factor for the investment managers. In this sense, most of the major issues they face are about meeting the demands of the institutional investors.

First of all, many Korean investment managers focus on strengthening their competency in overseas investment. With investors’ increasing demand on overseas investment, expertise or network, at least in the major global markets of New York and London, is a distinguishing factor for the majority of the existing investment managers in Korea. In fact, many Korean investment management firms play only a limited role in overseas investment. Without local expertise, their jobs are confined to communication channels between Korean investors and local asset management companies (AMCs) or local property
management firms who handle most of the core works involving the investment property. The lack of competency in the global market leads Korean investment managers into a vicious circle of low performance and low fee loads.

In the case of recent overseas investment cases, the average fee loads of a Korean Investment manager are typically priced at 25-30 basis points of the AUM. This is remarkably low in comparison to around 100 basis points of global investment managers who have local expertise in the local market. With the knowledge and control over the local market, global investment managers are also motivated to value additional operation by the incentives, which can be up to 15-20% of the target return.

One Korean investment manager said that a decent number of firms in the Korean investment management industry would be crowded out of the market in the near future. The manager added, “Figuratively speaking, the investment manager is a matchmaker between the bride and groom, a Korean institutional investor and an investment property. In the marriage market, however, too many matchmakers are competing with each other for only a few brides and grooms.”

Second, investment managers have always tried to keep good lines of communication open with their major clients, institutional investors, because Korean institutional investors have a little concern over controlling the funds through the investment manager. In principle, investors in real estate fund (REF) are strictly restricted to participate in the major decision-making process by the AMC of the fund. To give an extreme example, although a fiduciary duty is imposed to the AMC, investors have few ways to control the decision by the AMC when a conflict of the interest occurs between the two parties. During the market boom, for instance, the investor might request the early liquidation of the fund. The AMC, however, has little motivation to terminate the funds that create management fees. An investment manager with a good reputation, therefore, eases the potential delicate tensions with Korean institutional investors and has maintained a close relationship with them.

\[21\] The investor’s accessibility to the decision-making process is the major difference between REF and REITs. REITs, the other major indirect investment vehicle, allow investors to directly participate in decision making by casting votes in the shareholders’ meeting.
5.2.2 Real Estate Service Provider

Based on quick interviews with two consultants from Korean branch offices of the global real estate service providers who are actively working with Korean institutional investors, the author briefly investigates real estate service providing industry.

Korean institutional investors’ rationale for hiring a real estate service provider is that they can provide the investors with higher probability in making investment deals. The providers’ wide pool of potential buyers and sellers enables the investors to match the best counterpart with minimized time and cost. In the meantime, as an agent for the investment, the real estate provider serves as a buffer and a coordinator when conflict occurs between the two parties while negotiating terms and conditions.

The players consist of two groups by their origin, domestic firms and global firms. Major domestic firms include Mate Plus and Shinyoung Asset. Several domestic firms, such as Kyobo Realco, LG Subone, and 63 City, originated and were developed from the subsidiaries of the Korean major corporations to manage the corporations’ own real estate properties. With their internal corporate clients, domestic firms have strength in the domestic market with longer experience and exposure in the market. With worldwide networks, global service providers such as CBRE, Jones Lang LaSalle, Cushman & Wakefield, and Savills have a competitive edge in inbound investment from Korean institutional investors. They have been also active in outbound investment from global institutional investors who have long been clients in the global market.

Originating from real estate consulting firms, real estate service providers work horizons have been gradually expanded and now cover a wide variety of services that institutional investors require during all phases of the investment activities.

Global real estate service providers’ main business are broadly categorized into advisory and brokerage. Advisory works include the valuation of the property, negotiation strategy, operation strategy, risk-hedging strategy, and exit strategy. Brokerage works include deal sourcing and buyer/seller sourcing.

These two works are in an inseparable relationship. A majority of the firms’ profits are generated from the brokerage service, mostly in contingent fees. However, the expertise in deal brokerage can be accumulated from the wide variety of advisory experience and deeper understanding of the local market. In fact, major global service providers in Korea started their Seoul offices with advisory services. This shows that real estate service providers’ works are defined as ‘integrated transaction services.’
CHAPTER 6. SUMMARY & CONCLUSION

As mentioned in the introduction, the purpose of this thesis is to delve into the dynamic structure of Korean institutional investors’ stance on real estate as one of the critical investible asset classes. To achieve this goal, the thesis is largely composed of two parts: (i) a prior investigation of real estate and Korean institutional investors with academic literatures and industry data and (ii) direct interviews with industry professionals.

As a prior investigation, in chapter 2, the author conducted an academic literature review of the key advantages and disadvantages of real estate as an investable asset. In addition, in chapter 3, various information and raw data from the industry were gathered and analyzed to better grasp Korean institutional investors and the industry landscape.

For direct interviews with industry professionals, in chapter 4, the author designed the interviews, including interviewee selection, scheduling, and detailed action plans. In chapter 5, the author comprehensively analyzed interview findings based on the opinion of Korean institutional investors and their key partners.

To sum up the main contents of each chapter, chapter 2 identified that most institutional investors allocate their assets to real estate to a certain degree, although real estate investment has several drawbacks, such as illiquidity, relative lack of reliable information and resources, higher management cost, and general absence of a performance benchmark. Numerous academic research studies support such investors’ asset allocation of real estate by studying benefits of real estate investment, which include diversification within the overall portfolio, income generation, inflation hedging, and a large component of investable universe.

Chapter 3 shows an increasing trend of global institutional investment and recent stagnant inbound investment into Korea. Korean institutional investors - broadly categorized into public pension funds and mutual aid associations, life insurance companies, and a sovereign wealth fund - have different risk-and-return profiles based on their source of fund and their own liabilities. Generally, mutual aid associations with higher required returns are more aggressive in real estate investment, while life insurance companies have the most conservative stance. Public pension funds are intermediate, falling somewhere between the two. Since the early 2000s, with the related regulations being sophisticated, Korean institutional investors have expanded their domestic and global exposure to real estate. The growth of their assets under
management, growing competition in domestic markets, and recent low-interest market environments have all led Korean institutional investors to pay more attention to the global markets. Their real estate investments in the global market have been diversified in terms of the destination and property types.

The interview findings in chapter 5 show that, in spite of relatively short investment history, Korean institutional investors have attempted to follow a systematic approach to real estate investment. The key findings are summarized in Exhibit 17.

Exhibit 17. Summary of Interview Findings

<table>
<thead>
<tr>
<th>Topics</th>
<th>Key Findings</th>
</tr>
</thead>
</table>
| Rationale of real estate investment| - Expect diversification, inflation hedge and downside protection as a real asset  
- Limited by difficulty in performance measurement, higher management cost, and lack of expertise in local market |
| Percentage in the overall portfolio | - Wide range from 2~3% (Life insurance companies) to 3~10% (Pension funds and mutual aid associations)                                       |
| Investment types and location       | - Prefer existing class A office in the gateway cities, ‘core’ investment style  
- Diversifying trend in property types and geographical locations with ‘value added’ investment style |
| Investment structure                | - Lack of experience and deal sourcing channel limited mainly to joint investment with peer investors  
- Increasing interest and expertise in various investment structure with various risk-return profile |
| Outsourcing                         | - Outsourcing is critical for investment  
- Strategies differ with each other; active outsourcing and active insourcing                                                               |
| Deal sourcing                       | - Sufficient deal information have led investors passive in deal sourcing so far  
- Active deal sourcing is necessary for preoccupancy of prime opportunity                                                                        |
| Decision Making                     | - Holistic approach to screen investment targets  
- Standardized and sophisticated internal process                                                                                                |
| RM & Benchmark                      | - Check and balance by independent and conservative RM process  
- Hard to fully apply benchmarks into performance evaluation                                                                                 |
In addition, interviews with the external partners offer a different angle for understanding Korean institutional investors and the real estate investment industry. The investment management firms and real estate service providers play integral roles in promoting the market between investors throughout all phases of the investments, such as deal sourcing, transactions, and operation of the real estate asset. They are facing both threats and opportunities in terms of the changes in investors’ appetites and trying to cope with more severe industry competition.

This study is meaningful as a broad-brush approach to the wide subject of Korean institutional investors and their investment in real estate. With limited number of interviewees, this research is not representative of all Korean institutional investors and their third-party partners. In this sense, a wide variety of interesting research topics remains to be studied. The interview in this thesis especially shows investors’ investment tastes and patterns, Korean-specific practical considerations behind their decision-making mechanisms, and various investment practices, including outsourcing, risk management, performance evaluation, and incentives for internal managers. Hopefully, further detailed study by academic and industry professionals will be undertaken.
BIBLIOGRAPHY

**Academic Papers**


**Industry Papers**


Jones Lang LaSalle, “Global Capital Markets Research”, 3Q 2013

Jones Lang LaSalle, “The Advancement of Real Estate as a Global Asset Class”, 2013
OECD, “Annual Survey of Large Pension Funds and Public Pension Reserve Funds”, Oct 2013


PwC and ULI, “Emerging Trends in Real Estate Asia Pacific 2014”

Real Capital Analytics, “Global Capital Trends”, 1Q 2014

Websites

The National Pension Service of Korea: http://www.nps.or.kr

Korea Teachers Pension (KTPF): http://www.tp.or.kr/

Government Employees Pension Service (GEPS): http://www.geps.or.kr/

Korea Teachers’ Credit Union (KTCU): www.ktcu.or.kr/

Public Officials Benefit Association (POBA): http://www.poba.or.kr/

The Military Mutual Aid Association (MMAA): www.mmaa.or.kr/

The Police Mutual Aid Association (PMAA): www.pmaa.or.kr/

Korea Fire Officers’ Credit Union (KFOCU): www.sogong.kr/

Korea Scientists & Engineers Mutual-Aid Association (KSEMAA): www.sema.or.kr/

Korea Investment Corporation (KIC): www.kic.go.kr/

The Bank of Korea: www.bok.or.kr/

U.S. Department of the Treasury: www.treasury.gov/

The Korea Finance and Investment Association: http://www.kofia.or.kr/

The Korea Life Insurance Association: www.klia.or.kr/

Investment Property Databank: https://www.ipd.com/

Real Capital Analytics: https://www.rcanalytics.com/

The Pension Real Estate Association (PREA): http://www.prea.org/

The Sovereign Wealth Fund Institute: www.swfinstitute.org/

Shinyoung Asset: www.syasset.com/
APPENDIX: INTERVIEW GUIDELINES AND QUESTIONNAIRES

Korean Institutional Investors

1. Warm-up and introduction (5 Minutes)
   - Introduce myself to the interviewee
   - Explain the purpose and the confidentiality of the interview
   - Kindly ask the interviewee to introduce himself/herself
     - Respondent introduction: years of experience in the industry/at the company, job/role description
     - Company introduction: history, goal of investment, real estate investment organization

2. Rationale for real estate investment (10 Minutes)
   - What makes your institution invest in real estate?
   - What makes your institution hesitant to invest in real estate?
   - What are the internal perceptions of the management about real estate investment?

3. Asset Allocation Strategy (15 Minutes)
   - How do they allocate their capital to real estate? - Strategic asset allocation process
   - How do you implement tactical asset allocation strategies?
   - What are the investment goals and return objectives for real estate investments?
   - What are the fundamental investment approach to meet the objectives of the fund?
   - What is the size and percentage of the real estate investment portfolio in your firm’s overall mixed-asset portfolio?
   - What are the parameters considered for meeting the diversification requirements within the real estate portfolio?
   - What is the asset allocation and portfolio strategy between Core, Value-Added and Opportunistic products and why?
   - Do you have any property types preferences and why?
   - Do you have any geographic preferences and why?
   - What is the preferred investment strategy: the strategic considerations for mandated means of allocation (i.e., direct ownership, syndication, JV and co-investment, separate accounts, etc.) and why?
• What is your near-term view of investment trends in the target markets?
• How is your funds’ investment approach to the real estate for the short-term and longer-term?

4. Practical issues in Implementation of Investment Strategies (15 Minutes)

1) Outsourcing
• What is your opinion on outsourcing?
• What percentage of investment do you outsource?
• Does your institution have any standard for deciding whether to outsource or insource?
• How important is the outsourcing cost for your institution?
• What is your opinion on fee loads structures: is it reasonable, or high, or low?
• What is your institution’s criterion and process for partnering with the external investment manager and service provider?
• To what degree do you use of external specialists for the market research, property selection, daily management of the assets, and etc.?
• How important is internal resources and adequate knowledge with the investment?
• What is the level of discretion do you give to external specialists?

2) Deal Sourcing
• What are your major deal sourcing routes?
• How much do you feel burden about deal sourcing?
• Do you have your own style or approach for securing sound investment opportunities?

3) Decision making criteria and process
• What is the critical factor when you to make an investment decision and how flexible it is?
• Can you explain your institution’s internal investment decision making process?
• What is the most important and essential to pass through the internal process?
• How do you collaborate with the internal departments?

4) Risk Management
• What do you think are major important risks for real estate investment? (Illiquidity, management cost, etc.)
• How do you gauge these risks?
• How does the internal risk management system operate to hedge and mitigate the risks?
• To what extent do you use of external specialists to handle the corresponding risks?
• What is the internal process of the risk management?

5) Benchmark/ Performance Measurement

• What is your institution’s benchmark for the investment performance?
• What is the reasoning behind that benchmark?
• Can you explain to me your institution’s performance measurement criteria and process?
• Does your institution have incentive system in-house investment managers?
• If yes, what is your opinion on the performance measurement and incentive system? (Comparing to the traditional asset managers?)

5. Closing (5 Minutes)

• Can you share your opinion on what will be the near-term trends in Korean institutional investment investments in real estate both within Korea and globally?
• Please feel free to add any comments and suggestions.

Politely thank the respondents.
External Partners

0. Warm-up and introduction (5 Minutes)
- Introduce myself to the interviewee
- Explain the purpose and the confidentiality of the interview
- Kindly ask the interviewee to introduce himself/herself
  - Respondent introduction: years of experience in the industry/at the company, job/role description
  - Company introduction: Experience with Korean institutional investors, real estate organization/ man power

1. Industry Landscape (20 Minutes)
- Have you worked with Korean institutional investors?
- Please describe specific projects or deals if possible
- What are your main business?
- Can you explain collaborative structure and work flow with Korean institutional investors?
- What are the major issues in the investment management industry/ real estate service providing industry?
- What is your opinion on fee loads structures: is it reasonable, or high, or low?

2. Perspectives on Korean institutional investors (10 Minutes)
- What is the criterion used by Korean institutional investors to select partners?
- What is the level of discretion given to your firm by Korean institutional investors?
- Can you describe the characteristics of each Korean institutional investors you have worked for?
  (investment strategy, preferences on property types, style, and geographical region)

3. Closing (5 Minutes)
- Can you share your opinion on what will be the near-term trends in Korean institutional investment investments in real estate both within Korea and globally?
- Please feel free to add any comments and suggestions.

Politely thank the respondents.