Mezzanine Financing in US Real Estate and Korean Institutional Investors

by

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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

February, 2015

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ABSTRACT

Situated in the middle of the capital stack of a property, mezzanine financing in real estate has been established in the form of B-notes, mezzanine loans and preferred equity, allowing the borrower to reduce its equity investment. Emerged in the early 2000's, the US real estate mezzanine market has rapidly expanded mainly due to the credit crunch following the Global Financial Crisis that widened the funding gap between the senior debt and the borrower's equity and, thereby, opened investment opportunity for mezzanine lenders to fill the gap. Meanwhile, major Korean institutional investors, categorized into pension funds, mutual aid associations, life insurers and a sovereign wealth fund, had increasingly invested in foreign real estate, particularly in the form of equity investments in order to enhance investment returns and diversify their portfolio. As asset prices are approaching the pre-crisis level, however, they have started invested in debt products instead of equity investment, focusing on mezzanine debt mainly in the US and UK markets.

The purpose of this thesis is to identify the mezzanine investment opportunity in the US real estate market for Korean institutional investors. The US real estate mezzanine investment section introduces the elements of the mezzanine market and investigates the emergence and evolution of the market and specific investment strategies through publication review and an open-ended interview with a US investment manager. The Korean institutional investor section introduces the profile of major Korean institutions and looks into the market environment that led them to move toward debt away from equity and to prefer mezzanine debt for their overseas real estate investments through market research and open-ended interviews with major Korean asset managers. This thesis ends with defining mezzanine investment opportunity and risk in the US real estate market for Korean institutional investors.

After a thorough research, it is found that the US mezzanine market is expected to keep creating investment opportunity as long as the funding gap exists. Also, the research makes it clear that mezzanine debt commands higher returns compared to levered equity investment, drawing Korean institutions who pursue higher risk-adjusted returns while avoiding equity investment due to compressing cap rates. As being most advanced, experienced, established and biggest, the US mezzanine market can be the best target market for Korean institutions. However, they have to take into account the current issues of diminishing premium on mezzanine debt and increasing default risk.

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

ACKNOWLEDGEMENTS

This thesis is dedicated to my parents, wife, and two sons, whose unwavering encouragement, sacrifices and support has enabled me to achieve my goals at MIT.

Also, I am greatly indebted to:

Dr. David Geltner (Professor of Real Estate Finance), my thesis advisor, for his clear and brilliant guidance on structuring my thoughts on the field of real estate finance;

All the members of Alternative Investments Group at Cornerstone Real Estate Advisers for kindly sharing their profound insights into the US real estate mezzanine market;

All the interview participants for generously sharing their thoughts, expertise and time;

Dr. Gloria Shuck (Lecturer, MIT Center for Real Estate) for providing her invaluable comments;

Tricia Nesti (MSRED Program Coordinator, MIT Center for Real Estate) and all the MIT CRE Faculties, staff for supporting my school life at MIT.

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1.1 Introduction

In the US commercial real estate market, non-conventional ways to finance deals have emerged and evolved for the last decade. One of the newly evolved financing methods that have shown drastic changes is mezzanine financing. Mezzanine financing can represent B-note, mezzanine loan and preferred equity in the capital stack. In general, these types of capital fill the gap between senior mortgage debt or A-note and owner's equity or common equity.

Before the credit crunch beginning from 2007, mezzanine financing had provided liquidity to the market even with loan-to-value ratio exceeding the realistic value of the property. Lenders got paid with higher interest rates and fees in return for the higher risks that they took. After the crisis along with the recession, however, real estate owners and developers had a hard time to secure available capital due to limited capital sources resulting from tighter underwriting criteria by the traditional lenders in the market. Accordingly, they started seeking alternative capital sources, resulting in new players emerging in the lending landscape to inject liquidity in the market. These newly emerged players included nonbank financial firms, private equity funds and hedge funds looking for investment opportunities to take advantage of the illiquidity in the market during the volatile period. Thanks to the additional funding through mezzanine financing, real estate owners and developers could gain capital necessary for their projects. On the other hand, mezzanine lenders could go into the market and pursue high yield investments along with high origination fees and participation interest.

In the meanwhile, during the years following the recession in 2008, Korean institutional investors have faced challenges in their real estate investing including compressing yields or cap-rates and real estate portfolio diversification. First of all, the Korean real estate market have been experiencing continuously falling yields, close to record lows, especially for core assets. This phenomenon is mainly because of highly competitive environment in the market, meaning the market is driven by sellers and more buyers compete for limited number of high-quality properties. Furthermore, in the Korean office market, players are worrying about stagnant rent growth due to weakening fundamental economies. Due to this investment landscape, Korean investors started consider real estate investments outside of the domestic market for higher returns and portfolio diversification, focusing on overseas investments in the highest quality core assets, generally through single account transactions. However, most core assets, i.e. class-A offices in the gateway cities, have the same problem of compressing yields, making investors to hesitate to buy high-priced properties. This has caused Korean investors to consider alternatives with which they can meet their target returns. Thus, Korean institutional investors, mainly consisting of pension funds, mutual aid associations, life insurers and a sovereign wealth fund, are expected to expand their investing activities into foreign real estate markets with various strategies including mezzanine financing.

1.2 Research Outline

This thesis looks deeply into the aspects of the US real estate mezzanine financing market and the Korean institutional investors' investment activities and interest in mezzanine debt in order to: i) understand how the US real estate mezzanine market looks like and how the market is presenting investment opportunity, and ii) find the reason why Korean institutions have interest in foreign real estate debt, especially mezzanine debt, and why they have increasingly expanded mezzanine investments. The research consists of two distinct sections: the US real estate mezzanine investment section and the Korean institutional investor section.

The US real estate mezzanine investment section will focus on what mezzanine finance in real estate is, how mezzanine debt market in the US has emerged and evolved, and the investment strategy and opportunity. This section will include an open-ended interview with an US-based investment manager to figure out the current landscape in the US real estate mezzanine debt market and its investment strategies regarding mezzanine debt investing.

The Korean institutional investor section will address the profile of major institutions and their investment strategies, the current issues regarding their overseas real estate investments, and an analysis of debt-focused real estate funds that have been set up in recent years. This section will include interviews with Korea-based asset managers who represent Korean institutions to look into the current investment activities and issues regarding their debt investments, particularly mezzanine debt investments. This thesis will end with a summary and discussion of the findings from the research.

1.3 Thesis Flow

Chapter 2 looks into the aspects of the US real estate mezzanine financing market. Chapter 3 delves into the mezzanine investment strategies and opportunities through discussing interview responses from a US investment manager. Chapter 4 transitions into Korean institutional investors with their profile and current investment environment regarding their mezzanine debt investing. Chapter 5 discusses the interview responses from Korean asset managers to understand the investment environment of Korean institutions and the motives for their mezzanine debt investments. Chapter 6 summarizes and reaffirms the findings from the research.

Chapter 2 US Real Estate Mezzanine Financing Market

As the starting point of the thesis, this chapter will help us understand the US real estate mezzanine financing market through exploring what the real estate mezzanine financing is and how the US real estate mezzanine financing market emerged and has evolved.

2.1 Mezzanine Financing in Real Estate

In this section, we will review the definition of the mezzanine financing in real estate, the profile of the market players, and the types of the mezzanine financing products in order to look over the US real estate mezzanine financing market.

2.1.1 Definition of Mezzanine Financing

In traditional corporate finance, mezzanine financing is determined as "a hybrid of debt and equity financing that is typically used to finance the expansion of existing companies. Mezzanine financing is basically debt capital that gives the lender the rights to convert to an ownership or equity interest in the company if the loan is not paid back in time and in full. It is generally subordinated to debt provided by senior lenders".[1] Mezzanine financing can be provided through various structures such as unsecured, subordinated debt and preferred equity. "Mezzanine lenders look for a certain rate of return which can be derived from cash interest, PIK (payable in kind) interest, and ownership. Cash interest means a periodic payment of cash based on a percentage of

[1] Definition of Mezzanine Financing, Investopia, (http://www.investopedia.com/terms/m/mezzaninefinancing.asp)

the outstanding balance of the mezzanine financing. The interest rate can be either fixed throughout the term of the loan or can fluctuate (i.e., float) along with LIBOR or other base rates. Payable in kind interest is a periodic form of payment in which the interest payment is not paid in cash but rather by increasing the principal amount by the amount of the interest (e.g., a $100 million bond with an 8% PIK interest rate will have a balance of $108 million at the end of the period, but will not pay any cash interest). Along with the typical interest payment associated with debt, mezzanine capital will often include an equity stake in the form of attached warrants or a conversion feature similar to that of a convertible bond. The ownership component in mezzanine securities is almost always accompanied by either cash interest or PIK interest, and, in many cases, by both."[2]

Derived from the traditional corporate mezzanine finance, in the real estate industry, mezzanine financing has been established in the form of mezzanine loans and preferred equity investments. Through mezzanine financing, real estate owners and developers could secure additional capital on top of the senior debt, while reducing equity portion within their capital stack.

A mezzanine loan is a kind of secured loan with the collateral consisting of the borrower's equity interests in other subsidiary entities which actually own the subject real estate. As mezzanine borrowers only hold equity interests in the entities that control the mortgage borrower and the ultimate owner of the underlying real estate, a mezzanine loan is not directly secured by real estate (Berman, 2013). Due to its unique structure, mezzanine lenders are structurally senior to equity holders of the borrower, but they are structurally subordinate to the senior mortgage lender (Fisch et al, 2011). The mezzanine loans are positioned between the secured senior mortgage loan and the equity investors.

[2] Wikipedia, 'Mezzanine Capital', Structure, accessed Oct 2014. (http://en.wikipedia.org/wiki/Mezzanine_capital)

Preferred equity is another kind of real estate mezzanine financing for additional capital. Compared to mezzanine loans which have a clear relationship between creditor and debtor, preferred equity investments are structured not as debt but as a capital contribution in an entity that owns the underlying real estate (Berman, 2013). In return for the capital contribution, preferred equity investors acquire equity in the mortgage borrower with preferred rights. These rights typically include the right to receive a special or preferred rate of return on its capital investment and the right to an accelerated repayment of its initial capital contribution (Berman, 2005). As an equity investor, preferred members are structurally junior to all creditors (either secured or unsecured) of the borrower, but are senior to common members who hold common equity (Berman, 2013).

According to Fisch et al (2011), the main difference between mezzanine loans and preferred equity investments is that:

> "In general, investments intended to have a simple structure with current payments of interest and a fixed maturity date (with or without extension options) are usually structured as mezzanine loans, while investments with more complicated features, such as a cash distribution "waterfall" that allows the owner/developer to receive some cash flow distributions while the junior capital is still outstanding, or the capital provider sharing in the "upside" on top of its promised return, lend themselves more readily to a preferred equity structure."

As such mezzanine products have been developing rapidly, however, some mezzanine loans are recently originated with features that used to be seen in a preferred equity structure, such as "participation interest", which allows mezzanine lender to share the "upside" if residual value exists after the loan gets paid off.

2.1.2 Market Players

In the US real estate mezzanine financing market, there are bunch of groups on the alert for an opportunity to provide liquidity to the market. The market players include hedge funds, private equity firms, real estate asset managers, investment banks, private finance companies, institutional investors, and REITs. It is notable that the number of mezzanine financings from nonbank institutions has been significantly increasing in the market. Since the real estate market had hit bottom in 2009, senior mortgage lenders have started to lend again but with much conservative underwriting criteria. This opened opportunities for nonbank lenders to provide mezzanine financing that fills the funding gap between the shrunken senior mortgage and the borrower's equity. As many new players including previously non-real-restate players such as hedge funds have entered the mezzanine financing sector, competition is ramping up. (We will discuss the competitive environment of the market later in detail.)

Based on a recent industry survey[3] among real estate mezzanine lenders who have invested in B-notes, mezzanine loans, and preferred equity in the US, the number of active mezzanine lenders in the US increased from 57 in 2013 to 67 in 1H 2014. The total investment volume in 2014 is expected to be \$31,095 million (average individual investment size: \$565 million), increased by 87% from the actual volume of \$16,637 million (average individual investment size: \$362 million) in 2012. The average Loan-to-Value (LTV) ratio from 2012 through 1H 2014 is observed to be in the range of 85% - 86%. Assuming that the typical LTV ratio on senior mortgage loan is 65%, the average thickness of mezzanine financings would be around 20% in the capital stack. As for investment terms, the mezzanine financings throughout the years have around two years of

[3] Commercial Mortgage Alert, "Mezz Lender Survey, 2014."

minimum term and around nine years of maximum term in average. The Exhibit 2-1 summarizes the data from the survey. As seen from the Exhibit 2-2, investment banks deployed $5.7 billion of mezzanine capital in 2013, while $5.5 billion from private equity funds and hedge funds, $4.8 billion from REITs, $3.1 billion from investment managers, and $0.9 billion from life insurers which include investment subsidiaries of life insurers. The top eight lenders, those who placed capital more than $1 billion into the market, took up 55% of the total investment volume, deploying $11.3 billion of capital aggregately. These lenders consist of three investment banks (one headquartered in Canada), two private equity firms, one investment manager, and two publicly-traded REITs. The underwritten IRRs of their executed investments vary from as low as 5% to 15%, while the coupon rates are found in the same range. It is also found that they provided mezzanine capital up to 80% - 90% of the underlying property value at closing.

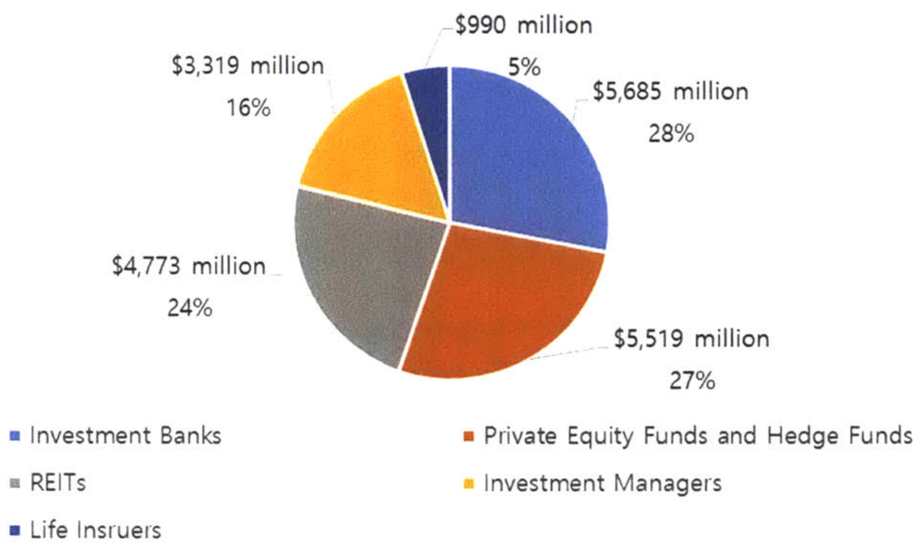
Exhibit 2-1 Mezzanine Lender Survey Summary

	2012	*2013*	*2014*
Volume ($ millions)			
Total	$16,637	$20,625	$31,095
Average	$362	$503	$565
No. Lenders by Product			
B Note	51	48	58
Mezz	63	57	66
Pref. Equity	50	48	58
No. Lenders by Property Type			
Office	60	55	63
Retail	56	53	61
MF	60	54	64
Hotel	49	47	52
Industrial	53	52	59
Other	24	27	31

Avg. LTV	85.7%	85.2%	86.0%
Avg. Minimum Term (years)	2.1	2.0	1.9
Avg. Maximum Term (years)	8.8	9.2	9.9

(Source: Derived from "Mezz Lender Survey 2014", Commercial Mortgage Alert)

Exhibit 2-2 Mezzanine Capital Deployed by Types of Lenders

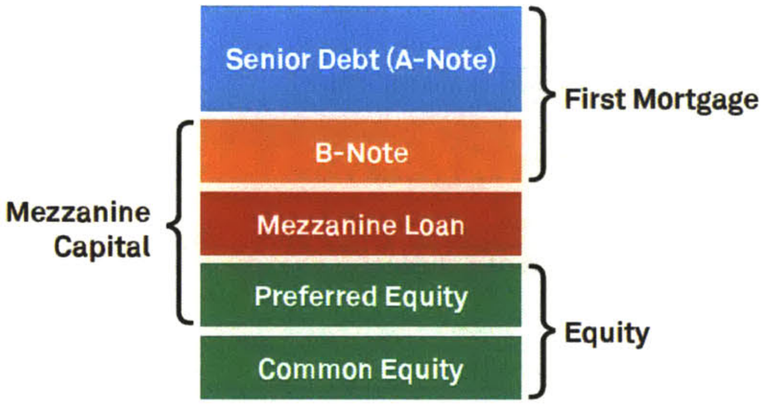


(Source: Derived from Mezzanine Lenders Survey, 2014)

2.1.3 Types of Mezzanine Financing Products

As mentioned previously in this chapter, mezzanine financing in real estate has been filling the gap between the senior mortgage and the borrower's equity mostly in the form of mezzanine loans and preferred equity investments. In this subsection, we will delve deeper into what types of these financing products in the market. In the real estate capital stack shown in the Exhibit 2-3, mezzanine capital can be represented by B-notes, mezzanine loans, and preferred equity.

Exhibit 2-3 Capital Structure of a Typical Single Property



Types of Mezzanine Capital

- B-Note: a junior/subordinate interest in a first mortgage collateralized by a lien on the property
- Mezzanine loan: secured by a pledge of equity interests in a borrower who owns the real estate
- Preferred equity: an instrument which takes the form of a partnership agreement with the common equity

(Source: BlackRock, "Real Estate Debt: Climbing the Capital Ladder", August 2012)

B-notes are determined as a junior/subordinated participation in a first mortgage loan, which is often originated as a bifurcated loan consisting of an A-note and a B-note. Generally, this type of product funds development projects or value-added acquisitions in which the proceeds from the B-note goes into the project first until used up. This nature of B-notes results from its higher risk/return position in the A/B financing. While B-notes are subordinated to A-notes in a bifurcated loan, they are secured by the underlying real property unlike mezzanine loans.

A mezzanine loan is a loan subordinated to the first mortgage but senior to the borrower's equity. Compared to B-note investors, mezzanine loan lenders are not granted a mortgage lien on the real property. Instead, mezzanine loans are secured by a pledge of equity interests in the borrower who owns the real property. Compared to B-notes which are generally originated by a single lender or a syndication, mezzanine loans entail the relationship between the senior mortgage lender and the subordinate mezzanine lender. When it comes to the event of default under the mortgage or mezzanine loan, the relationship matters. Hence, in a mezzanine loan transaction, the intercreditor agreement is the most important document which govern the parties' respective rights and liabilities in the event of default either on the mortgage or the mezzanine loan (Berman, 2013). According to Fawer and Waters (2007)[4], "the intercreditor agreement normally will address issues such as:

- The collateral which is permitted to secure a mezzanine loan.
- When a mezzanine lender may accept payments from a borrower.
- The instances in which either party may modify their respective loan documents.
- The remedies that may be exercised upon a default of either loan.
- The right of the mezzanine lender to purchase the senior loan.
- The right of mezzanine lender to receive notice of senior loan borrower defaults and an opportunity to cure these defaults."

Fawer and Waters (2007) also mention that "mezzanine lenders should not look at a standard form [of the intercreditor agreement] as set in stone, but rather as a starting point to enable them to tailor the terms to specific needs of a given project in order to better manage their own risks." By entering into an intercreditor agreement and modifying terms in it, mezzanine lenders can defend against

[4] Fawer, Mark S., and Michael J. Waters. 2007. "Mezzanine Loans and the Intercreditor Agreement: Not Etched in Stone." Real Estate Finance Journal

the actions from the senior mortgage lender which may negatively impact the value of the collateral the mezzanine lender holds.

Preferred equity is defined as a debt-like equity product, senior to the common equity and junior to the first mortgage, taking the form of a partnership agreement with the common equity. Preferred equity is usually issued when the senior mortgage lender does not allow the borrower to incur any further debt. In other words, preferred equity investments are often made when the mezzanine loan origination is restricted by the senior mortgage loan documents. Preferred equity investments can be also found in distressed property transactions. Arnold (2011) states that preferred equity can be issued when "a property is generating insufficient cash flow to service a junior or mezzanine loan" since the capital contribution through preferred equity investments can be used for the enhancement of the distressed property without any further debt funding. Acquiring direct ownership with the property, preferred members could better protect their investment capital through actively engaging in the operation and could gain higher returns if the subject property is well managed (Saft, 2011).

Along with these three types of mezzanine financing products, B-pieces of commercial mortgage-backed securities (CMBS) can be another type of product. Based on the "Borrower Guide to CMBS"[5], CMBS loans are originated through the process described below:

"In a CMBS transaction, many single mortgage loans of varying size, property type and location are pooled and transferred to a trust. The trust issues a series of bonds that may vary in yield, duration and payment priority. Nationally recognized rating agencies then assign credit ratings to the various bond classes ranging from investment grade (AAA/Aaa through BBB-/Baa3) to below

[5] Commercial Mortgage Securities Association, Mortgage Banker's Association. 2004. "Borrower Guide to CMBS"

investment grade (BB+/Ba1 through B-/B3) and an unrated class which is subordinate to the lowest rated bond class."

These below investment grade pieces are called B-pieces, the most subordinate bond classes. "The investors in these bond classes is referred to as the 'B-piece Buyer'. B-piece Buyers generally purchase the B-rated and BB/Ba-rated bond classes along with the unrated class." Mezzanine investors also can buy B-pieces in CBMS loans, positioning in a certain point on the risk/return spectrum, close to the point where they choose for B-note investments. Through participating in the CMBS market and consuming B-pieces rather than originating B-notes, they could obtain investment returns similar to ones from B-note investments.

2.2 History of US Real Estate Mezzanine Financing Market

Having discovered the mezzanine financing in real estate in the previous section, we will review the history of the market in this section to understand the background of the market from its inception to date.

2.2.1 Emergence of US Real Estate Mezzanine Financing Market

It is widely known that the real estate mezzanine financing market in the US appeared in the early 2000's with the shift in the senior mortgage market toward conservatism and a huge influx of capital into real estate investments. In order to understand the emergence of real estate mezzanine financing market in the US, we need to date back to 1980's. According to Watkins (2003), reviewing changes in the first mortgage market will help to understand the mezzanine market. Once in the 1980's, senior mortgage lenders originated loans with LTV or LTC (Loan-to-Cost) ratios up to 95%. Since many of such senior mortgage loans had gone through collapse in the underlying property's value in the late 1980's, however, in 1989, LTV ratios on senior mortgage loans decreased to around 75% in average. In the early 2000's, a more conservative criteria was applied to underwrite mortgage loans with the LTV ratio ranging from 65% to 70%. Watkins (2003) asserts that the first mortgage lenders took a more conservative position mainly due to reasons including the tightened regulations regarding bank lending and the development of CMBS market.

> "Capital reserve regulations have played an important role behind increased lender conservatism. The Office of the Comptroller of the Currency (OCC), the national banking regulator, has developed a set of bank lending guidelines and an approach to calculating the amount of risk-based capital in the bank's asset portfolio. The "at-risk" schedule indicates the

amount of reserves (as a percentage of the loan) that must be set aside for each category of loan. Commercial real estate loans with less than 75% LTV ratios incur a capital charge equivalent to that of investing in BBB-rated (investment grade) bonds. Loans with greater than 75% LTV ratios are assessed greater capital charges. Therefore, banks typically make loans that are less than the 75% LTV threshold.

A different governing body regulates insurance companies but follows a similar approach. The National Association of Insurance Commissioners (NAIC) has developed guidelines for state agencies to use in regulating insurance company investments. NAIC guidelines are similar to those of the OCC, with a minor difference on mezzanine finance. Though mezzanine loans and first mortgage loans are currently treated the same from an at-risk perspective, the NAIC has been contemplating a change for several years and insurance companies have largely aligned their practices in anticipation of the expected revision.

The CMBS market's development is another factor that has encouraged greater conservatism on the part of lenders. Securitized pools of real estate loans must undergo rating agency review in order to be saleable. The rating agencies rate the tranches according to the characteristics of the underlying collateral pool of mortgages and the structure of the securities (i.e., subordination and credit protection). As they analyze each loan for its inherent risk, rating agencies and the buyers of the unrated and non-investment grade tranches (B-piece buyers) wield influence in determining underwriting standards on the individual loans that form the collateral. This process has pushed lenders toward greater uniformity in the mortgage market. LTVs and debt service coverage ratios have become more conservative as a result, especially if the loan is headed for a pool to be securitized."

While the senior mortgage lenders went conservative in the early 2000's, a more fundamental factor, a considerable amount of capital flowing into real estate markets particularly in debt type of investments, enabled the mezzanine market to develop. Oversupply of capital in the debt capital market brought down the cost of debt for real estate owners and developers, leading them to take more financial leverage on their assets. This situation in the early 2000's incurred the abundant inexpensive capital to fill the gap between what the senior lender will lend and what the borrower wants to borrow. Mezzanine lenders, hence, emerged to inject capital into the market, filling the funding gap.

In the initial stage, due to the absence of standard deal structures, terms and conditions of each mezzanine financing varied and depended on the preferences of the lender and the borrower. The then mezzanine financings were structured in a form of debt or equity, representing second trust debt and junior debt through a debt structure, and preferred equity and gap equity through an equity structure. Both debt and equity financings targeted to provide capital up to 85% LTV.

2.2.2 Evolution of US Real Estate Mezzanine Financing Market

As discussed in 2.2.1, mezzanine financing in the US real estate had emerged and been developed throughout the 2000's. Before the recession from the Global financial crisis (GFC) in late 2007, mezzanine debt and preferred equity have been established as major mezzanine financing methods in the US real estate market. Thanks to abundant capital available for real estate owners and developers, the realistic LTV ratios[6] started approaching the value of the underlying property again like in the late 1980's, allowing lenders to gain high coupon rates and fees in return for taking

[6] The realistic LTVs, such as Moody's LTVs that reflect the haircut of the credit rating agency for CMBS conduit loans, are greater than the stated or underwritten LTVs ('Commercial Real Estate Analysis and Investments', Geltner et al, 3e, page 501-502).

higher risk. However, after GFC, the senior mortgage lenders consisting of traditional lending institutions began to take much conservative position with tighter underwriting criteria, leading to the highly competitive environment in securing the scarce capital sources from the capital market. This caused the increasing demand for alternative capital sources, providing a chance for a new group, non-traditional financial institutions, to participate in the lending market. These new types of lenders, including nonbank financial institutions, private equity funds and hedge funds, took advantage of the illiquidity in the market. They began to provide mezzanine capital to fill the funding gap resulted from the shrunken, tightened senior mortgage market.

Berman (2013) states main reasons for the post-GFC growth of mezzanine financing. They are the disappearance of junior mortgage loans due to the tighter credit rating standards of CMBS loans, and the maturity of existing debt.

First of all, in 2010, CMBS lending began to recover, at first slowly but finally resurged again but still with relatively conservative underwriting guidelines due to the recent severe experience. After the GFC, Credit ratings agencies such as Standard & Poor's and Moody's started including prohibitive conditions in their CMBS ratings which prohibit the borrower from incurring any additional mortgage debt on the subject property. If any mortgage loan in a commercial loan pool has a subordinate mortgage with it, the loan pool cannot be securitized. This effectively made junior mortgage loans disappear in the market (Rubin 2009) as CMBS loans returned to the market and played a significant role in providing debt capital again. As a result, this funding gap left by the disappearance of junior mortgage debt began to be filled with alternative capital provided by newly emerged mezzanine lenders.

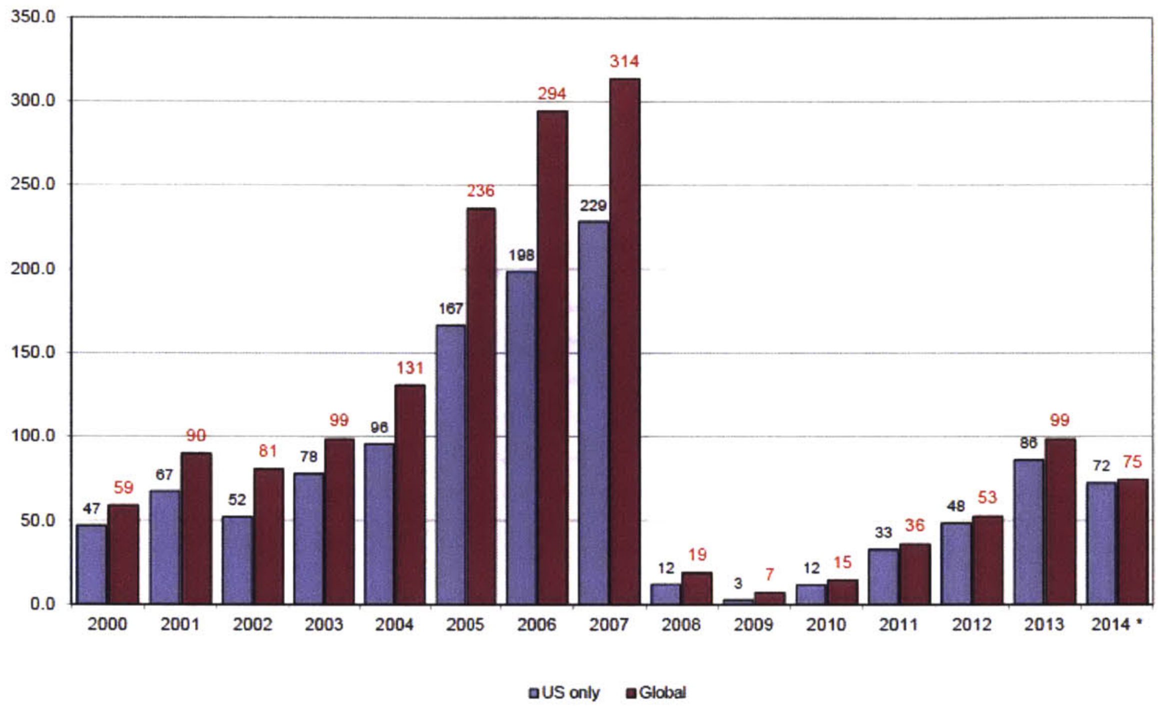
Lower LTV ratios represent well the recent conservative lending criteria applied by senior mortgage lenders. Along with the lower LTV ratios, senior mortgage lenders also require higher debt coverage ratios (DCR) in accordance to the financial regulations derived from the Dodd-Frack Act of 2010[7] (Fass, Shaff, and Zief, 2011). The DCR, the annual debt service over a property's net operating income, shows the subject property's ability to service debt with its cash flow. Higher DCR prohibits the real estate owners from taking high leverage on the property, resulting in requiring them to commit more equity into the capital stack. Mezzanine lenders offer capital to increase the LTV ratios, in the view of the owners, without increasing mortgage debt level. Even though a mezzanine lender is technically a secured creditor of the borrower, credit ratings agencies and senior mortgage lenders consider mezzanine loans a form of equity rather than debt, allowing the borrower to increase the leverage level (Saft, 2011).

Lastly, as the existing loans originated before the GFC have started maturing, the opportunity for mezzanine lenders to fill the funding gap has been increasing. As seen from the Exhibit 2-4, CMBS issuance had peaked in 2005 through 2007 right before the GFC ($167 billion in 2005, $198 billion in 2006, $229 billion in 2007). Duell (2012) asserts that these conduit loans have terms of seven to ten years, which means they have begun to mature from 2012. Trepp, a research firm, estimates that US commercial mortgage loans with a total unpaid balance of $1.4 trillion will mature over the period of 2014-2017 (See Exhibit 2-5). CMBS loans represent about a quarter of the balance and many of these loans were originated during the market peak. Given tightened loan underwriting standards, these loans, which were originated with pretty high LTV ratios, will not be likely extended at maturing, or, at least, lenders could require partial repayment of outstanding

[7] "The Dodd–Frank Wall Street Reform and Consumer Protection Act (Pub.L. 111–203, H.R. 4173; commonly referred to as Dodd-Frank) was signed into federal law by President Barack Obama on July 21, 2010 at the Ronald Reagan Building in Washington, DC. Passed as a response to the Great Recession, it brought the most significant changes to financial regulation in the United States since the regulatory reform that followed the Great Depression. It made changes in the American financial regulatory environment that affect all federal financial regulatory agencies and almost every part of the nation's financial services industry." Wikipedia, accessed Oct. 2014

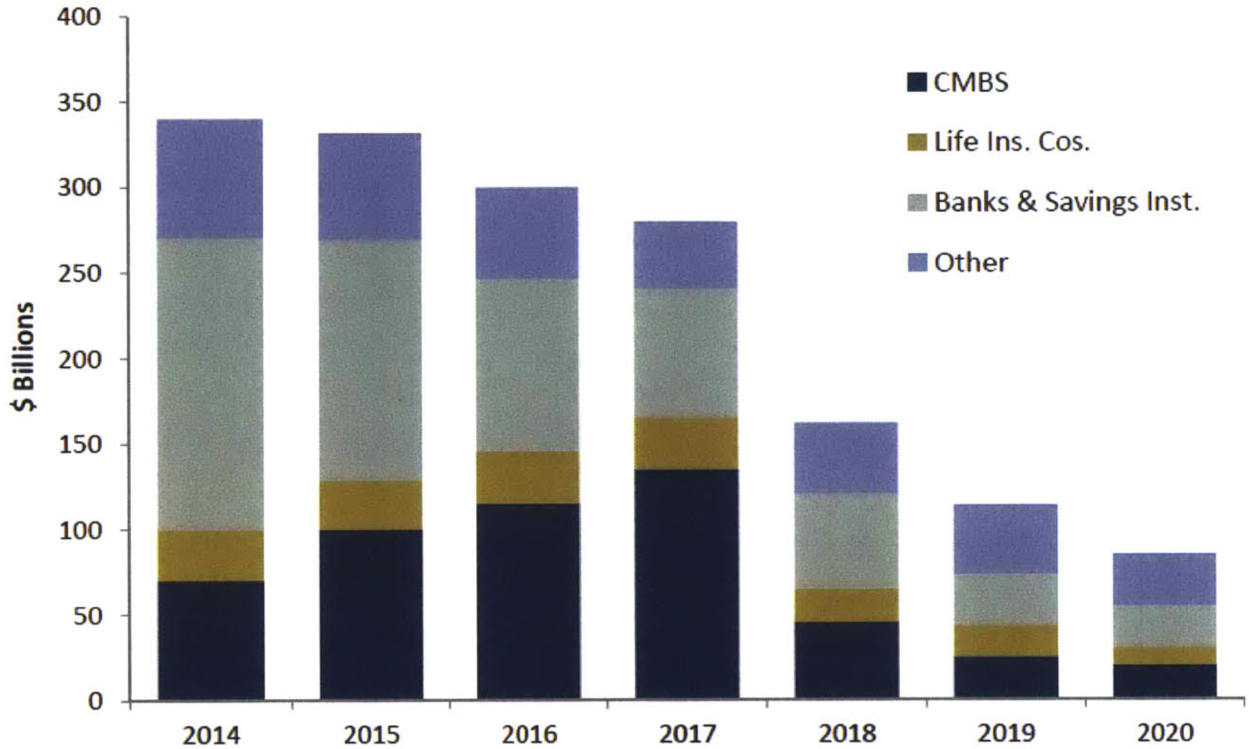
principal, reducing the balance to the level corresponding to the lower LTV ratios. Consequentially, a huge amount of existing senior mortgage loans ready to retire in the coming years provides an opportunity for the mezzanine lenders to inject capital to refinance these loans.

Exhibit 2-4 CMBS Issuance



(Source: Pension Real Estate Association based on data from Commercial Mortgage Alert, 2014 data as of October 17, 2014)

Exhibit 2-5 Mortgage Maturity Estimates by Lender Type



(Source: Cornerstone Real Estate Advisers based on data from Trepp, January 2014)

Chapter 3 Mezzanine Investment Strategy and Opportunity (Interview with US-Based Investment Manager)

The previous chapter allowed us to get familiar with the aspects and background of the US real estate mezzanine financing market. In this chapter, we will focus specifically on mezzanine investment strategy and opportunity through looking into the results from an interview with a US-based investment manager.

3.1 Objectives

The author conducted an in-depth, open-ended interview with a senior executive of a US-based global real estate investment manager in order to figure out the current landscape in the US real estate debt market, especially for mezzanine debt, and investment strategies regarding debt investing including mezzanine debt investments. The main objectives was to explore investment opportunities in the US real estate debt market with higher risk/return preferences.

3.2 Interviewee Profile

The interviewee company is one of the world's largest global real estate investment managers. The company's assets under management, totaling more than $40 billion (as of 1H 2014), consist of private and public real estate interests across a broad spectrum of private and public real estate that include private equity real estate, global public real estate equity securities and real estate debt. The company has offices located in major MSAs in the US and global presence covering Europe and Asia.

3.3 Research Methodology

- The data was collected by an in-person interview (some detailed data was provided via e-mails from the interviewee after the interview);
- The interviewee was at the Director level;
- The interview was conducted in November 2014;
- The interview lasted more than one hour;

As confidentiality was promised to the respondent, the information stated in this chapter does not identify the name of the company, its affiliates and its funds/clients. Open-ended interview methodology was chosen and the questions were designed to acquire the investment strategy aspects of the company and the current market conditions.

3.4 Questionnaire

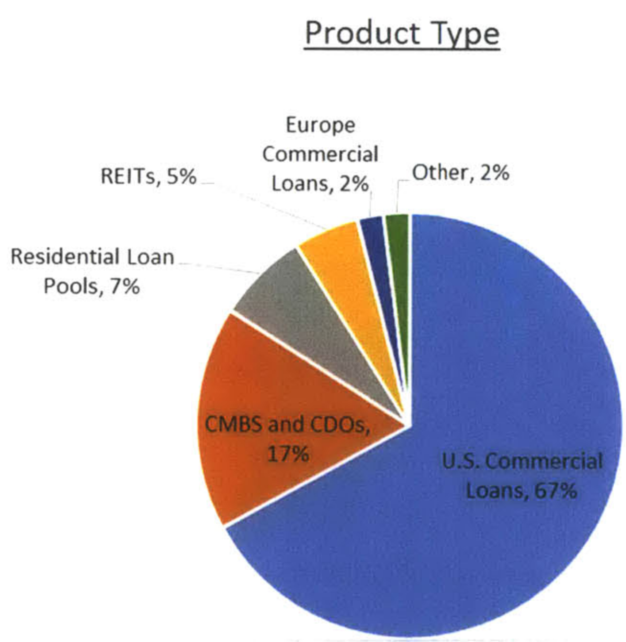
- What percentage of the total AUM does real estate debt investment account for?
- How does your firm invest in real estate debt between core, value-added and opportunistic investments?
- What type of debt investments has your firm deployed investors' capital into?
- What are the expected returns for each investment type?
- What do you think of opportunities regarding real estate debt investment in the US?
- What kind of challenges has your company faced in the US real estate debt market?
- What will be the near-term trends in real estate debt investment in the US?

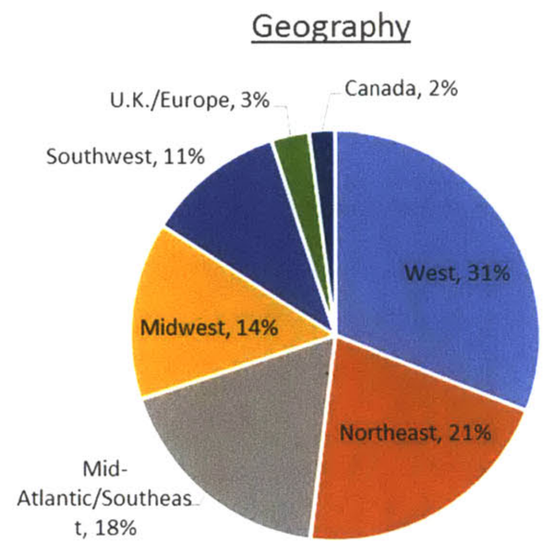
3.5 Interview Responses

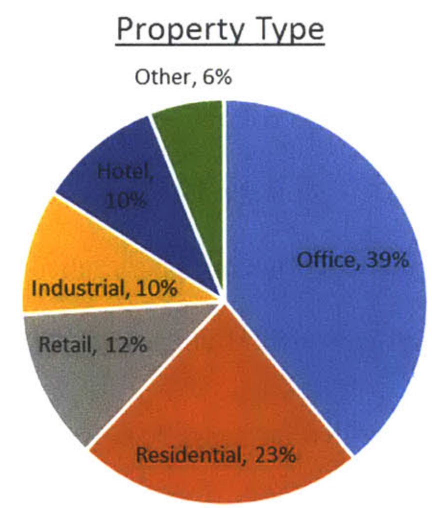
Real Estate Debt Portfolio

The company has placed approximately 67% of its total assets under management into real estate debt both in public and private markets as of H1 2014. In terms of product type, U.S. commercial loans take up more 67%, followed by CMBS and CDOs (17%), Residential Loan Pools (7%), REITs (equity shares in mortgage REITs) (5%), Europe Commercial Loans (2%), and Others (2%). Geographically, the U.S. takes up 95%, with 31% in West, while the U.K./Europe and Canada account for the rest 5%. As for property types, Office holds 39% of the company's debt portfolio, followed by Residential (23%), Retail (12%), Industrial (10%), and Hotel (10%).

Exhibit 3-1 Real Estate Debt Investments by Product Type, Geography and Property Type







Core vs. Non-core Investment

Since its inception, the company has originated, underwritten, closed and serviced more than 1,700 real estate debt and alternative investment transactions totaling approximately $46 billion in committed capital. 75% of the total debt investments has been under core strategies through various fund, advisory and co-investment structures, while 35% under non-core strategies through the same deal structures. Since 2010, the company has closed several new funds and new separate accounts with investor capital commitments totaling \$2.8 billion, 56% of which is in alternative[8] investment strategies representing high yield debt strategies. The interviewee mentioned that this shows investors' interest in alternative debt investment has been increasing due to their seeking higher returns.

Debt Investment Strategies and Opportunities

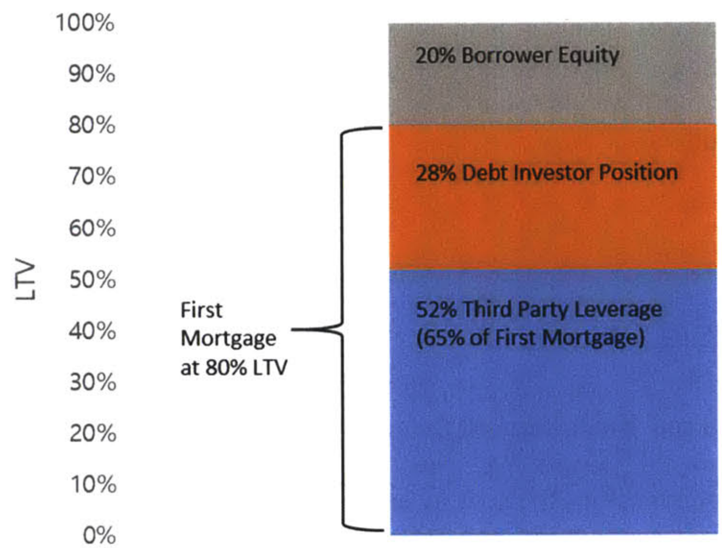
The company has a broad range of debt investment products from senior mortgage to CMBS loans both in private and public debt markets. Narrowing them down to alternative debt investments, the interviewee explained that the company takes high yield debt strategies to meet the needs of investors those who position on a higher point in the risk/return spectrum. The high yield debt strategies include Enhanced Mortgage Debt, Development Mezzanine Debt and Cash Flowing Mezzanine Debt. The interviewee asserted that investment opportunities exist with these debt investment strategies in the market. These high yield debt strategies are described below.

The Enhanced Mortgage Debt is basically a first-lien mortgage loan on the subject property, but has the underlying leverage in the loan structure. This means that the loan itself is levered by a third party investor such as commercial banks and insurance companies seeking core risk exposure (around 50% property LTV) with LIBOR spreads of 150-250 bps. The typical third party's participation to an enhanced mortgage loan is 65% of the total loan amount, which is 52% of the property's value if the loan has 80% LTV (see Exhibit 3-2). With the Enhanced Mortgage Strategy,

[8] Although 'alternative' investment usually means any investments rather than stocks and bonds in the investments industry, 'alternative' investment in this context represents other real estate investments different from the traditional real estate investments.

an investment portfolio can be composed of direct-originated first mortgages secured by high quality income producing real estate with transitional property-level cash flow characteristics, including lease-up, re-stabilization, or to-be-completed capital projects. Such transitional mortgages are typically floating rate and priced at 325-425 bps over LIBOR with 3-5 year terms.

Exhibit 3-2 Capital Structure of Enhanced Mortgage Debt Investment



The Development Mezzanine Debt Strategy exploits the current market dynamics, especially of multifamily, exhibiting strong fundamentals with occupancies at high rates and positive rent growth. In multifamily, a secular shift in the homeownership rate is creating renters by choice, and echo-boomers and baby-boomers are large and growing components of demand for multifamily. Moreover, the development cycle for multifamily is viewed by the interviewee as still presenting significant opportunity. A typical development mezzanine debt investment has a maximum 90-95% Loan-to-Cost ratio, leaving developers have minimum 5% cash equity in the deal. It is structured a promissory note secured by a pledge of the equity interests of the property owner with target returns of 11-14%.

Cash Flowing Mezzanine Strategy is applied when the subject property has a low-leverage first mortgage debt while generating sufficient cash flows to service a subordinate debt. In the market, it is found that there is less liquidity in the tranche between 70% and 85% LTV. These mezzanine loans are priced in the 5-8% range with floating rates which provide inflation protection. The target sizes of the loans range from $10 million to $100 million. These loans have 2-7 year terms including extension options. A typical cash flowing mezzanine investment is executed in the form of promissory note secured by a pledge of the equity interests of the property owner. Also, it entails an intercreditor agreement with senior lenders.

US Real Estate Debt Market Trends/Issues

The interviewee contended that, in the US real estate market, the funding gap due to the tightened debt market is an indisputable reason for investors to have to exploit investment opportunities especially in mezzanine financing and leveraged first mortgage loans.

The interviewee explained that "the US real estate debt market has faced several issues for the coming years after the Global Financial Crisis. Financial institutions reduced debt originations in concert with the global credit crunch. The volume of new CMBS issuance is still below historic levels due to the debt market contraction while the commercial real estate mortgages originated in the peak years of 2005-2007 will be maturing soon. Along with the increasing demand for refinancing from borrowers due to property depreciation and lower LTV requirements of lenders, these issues have caused the funding gap. In other words, borrowers need to refinance, but lenders cannot originate loans that cover the existing high-leverage loan amount. This debt funding gap has created lenders' investment opportunity including re-capitalization, refinancing, etc. with favorable loan terms."

Speaking of the current market conditions, the US mortgage markets including commercial and multifamily, according to the interviewee, have been improving although legacy issues remain and the financial leverage cycle is bottoming as de-leveraging and balance sheet repair wind down. There is a good sign boding well for the US real estate debt market. The outstanding balance of total mortgage debt increased during 2013 for the first time since 2008, led by a resurgence in CMBS and bank lending. The increase in CMBS and bank lending shows market recovery gaining in depth and breadth. Even with the improvement, however, the current originations remain well off pre-crisis levels and are insufficient to finance maturing loans and new transactions. As for the transactions flow trends, the investment scope broadens. The interviewee said that Non-gateway markets[9] garner growing share of total transaction dollar volume, taking up more than 55% of the total transaction volume at the beginning of 2014. The interviewee also mentioned that the commercial mortgage maturities are still an issue as a result of heavy near term volumes of bank loan maturities followed by a wave of CMBS maturities due in 2016 and 2017.

[9] Gateway Metros include Boston, New York, Washington D.C., Chicago, San Francisco, and Los Angeles.

3.6 Chapter Conclusion

The research findings exhibit that investment opportunities exist in the US real estate debt market especially with high yield debt strategies. The company has been exploiting the opportunities resulted from the funding gap due to the illiquidity in the market struck by the GFC.

The company recognizes the investment opportunities to fill the gap with the investment strategies representing Enhanced Mortgage Debt, Development Mezzanine Debt and Cash Flowing Mezzanine Debt. These debt strategies have emerged as alternatives methods to provide liquidity to the market where borrowers and developers have difficulties to refinance their existing debt to be matured or to fund their development projects.

It is found that the capital commitments from investors for alternative investments, mostly high yield debt, have been increasing. This proves that investors have been seeking higher returns that they could not get with traditional investment strategies. In the view of investors, through these debt strategies, they could achieve various risk-adjusted returns based on the underlying risks of individual deals.

As for the US real estate debt market, many signs show that the market is recovering from the recession. Even though the lending activities from traditional lenders have been resurging, which might threaten the investment opportunities filling the funding gap, strong demand for the alternative financing, mostly mezzanine financing, still exists. This argument is backed by the explanations from the interviewee that the current increasing originations are not enough to refinance maturing loans and to fund new transactions, and that the loan originations from the conventional lenders are underwritten under the tight standards, lower LTVs along with higher DSCRs, still leaving the funding gap in the property level.

Chapter 4 Korean Institutional Investors and Overseas Real Estate Investment

After looking into the US real estate mezzanine debt market in the previous two chapters, we will now investigate the Korean institutional investors in the present chapter, focusing on their investment activities in overseas real estate and interest in mezzanine financing.

4.1 Korean Institutional Investor

In this section, we will explore profiles of major Korean institutional investors and their asset allocation to real estate in order to understand their current real estate investment activities.

4.1.1 Profiles of Major Korean Institutional Investors

Institutional investors can be defined as "organizations which pool large sums of money and invest those sums in securities, real property and other investment assets."[10] It is generally recognized that the types[11] of institutional investors include endowment funds, hedge funds, insurance companies, investment banking, investment trust, mutual funds, pension funds, sovereign wealth funds, and unit investment trust. Among these types of investors, the author excludes financial instruments that could be used by other types of institutional investors and personal investors as an investment vehicle. As a result, the types of institutional investors narrow down to endowment funds, insurance companies, pension funds, and sovereign wealth funds. In Korea, active domestic institutional investors can fall into the types of pension funds, insurance companies and sovereign

[10] Wikipedia, "Institutional investor" Accessed October 2014.

[11] Wikipedia, "Institutional investor: Institutional-investor types" Accessed October 2014.

wealth funds. In addition, there are a number of mutual aid associations in Korea which can be classified as a type of institutional investors with the nature and investment purpose similar to those of pension funds. These four types of Korean investors have been leading institutional real estate investment both domestic and overseas.

1) Pension Funds

The main pension funds in Korea represent National Pension Service of Korea (NPS), Korea Teachers Pension (KTP), and Government Employees Pension Service (GEPS). As public pension funds, these pension funds were established and governed in accordance to the National Finance Act[12]. NPS is by far the largest pension fund in Korea with more than 20 million subscribers, almost two fifth of the population. The Exhibit 4-1 shows brief profiles of these major pension funds.

Exhibit 4-1 Major Pension Funds in Korea (as of the end of 2013)

Name	**Year of Inception**	**AUM[13] ($ billion)**	**Annual Return[14]**
National Pension Service (NPS)	1988	407.45*	4.20%
Korea Teachers Pension (KTP)	1975	14.38	4.08%
Government Employees Pension Service (GEPS)	1982	7.98	3.94%

* As NPS provides pension service to a huge number of workers in most private sectors in Korea while other two pension funds cover only a relatively small number of workers in certain industry sectors, NPS has noticeably larger amount of AUM than others.
(Source: the Internet[15])

[12] National Finance Act (2011), available at http://pimac.kdi.re.kr/eng/mission/pdf/National_Finance_Act(2011).pdf.

[13] Exchange rate: 1USD = 1047.98KRW, Google Finance as of 10/28/14

[14] Realized annual return in 2013

[15] NPS (http://fund.nps.or.kr/jsppage/fund/mcs/mcs_01.jsp),
KTP (http://www.ktpf.or.kr:8088/hp/n_ktp/ktp_06_03_01.jsp),

2) Mutual Aid Associations

The dictionary definition[16] of a mutual aid association is 'an organization whose purpose is not primarily to distribute earnings to its members but to assist, benefit, or protect them in some common matters or objectives.' In Korea, mutual aid associations were established in accordance to laws[17] corresponding to each association which govern their own fund to achieve their goals to improve the welfare of the member. The Exhibit 4-2 shows brief profiles of these major mutual aid associations.

Exhibit 4-2 Major Mutual Aid Associations in Korea (as of the end of 2013)

Name	Year of Inception	AUM[18] ($ billion)	Annual Return[19]
Korea Teachers Credit Union (KTCU)	1971	22.85	3.60%
Public Officials Benefit Association (POBA)	1975	6.07	3.69%
Military Mutual Aid Association (MMAA)	1984	6.08	-
Police Mutual Aid Association (PMAA)	1989	1.63	3.40%
Korea Fire Officials Credit Union (KFOCU)	1984	0.46	4.52%
Korea Scientists & Engineers Mutual-Aid Association (SEMA)	2003	2.07	5.80%

(Source: The Internet[20])

GEPS (http://www.geps.or.kr/g_subsite/operation3/html/operation3_sub.jsp?m=A2-07-01-00)

[16] Merriam-Webster Dictionary (http://www.merriam-webster.com/dictionary/mutual%20aid%20association), accessed Oct. 2014.

[17] Korea Teachers and Staff Mutual Aid Association Act (Amended, 2008), Korea Public Officials Benefit Association Act (Amended, 2014), Military Mutual Aid Association Act (Amended, 2014), Police Mutual Aid Association Act (Amended, 2010), Korea Fire Officials Mutual Aid Association Act (Amended, 2014), Korea Scientists and Engineers Mutual Aid Association Act (Amended, 2014). Available at http://www.law.go.kr, not all available in English.

[18] Exchange rate: 1USD = 1047.98KRW, Google Finance as of 10/28/14

[19] Realized annual return in 2013

[20] KCTU (http://www.ktcu.or.kr/infor/infor.jsp),
POBA (http://www.poba.or.kr/info/assetManagement01.jsp?gMenuCode=CT06030500),

3) Insurance Companies

Along with pension funds and mutual aid associations, insurance companies in Korea, especially life insurers, are active players in real estate investments. There are 25 life insurers doing business in Korea with AUM totaling $446 billion, 86% of which are managed by top 10 insures. Approximately 3.2% of the total AUM is allocated in real estate. They are under the oversight of the Financial Supervisory Service, a Korean watchdog agency, and governed by the Insurance Business Act (amended 2014). Compared to other Korean institutional investors, life insurers refrain from allocating capital into higher risk investments due to the strict regulations. The Exhibit 4-3 shows brief profiles of the top 10 life insurers in Korea by AUM volume.

Exhibit 4-3 Top 10 Life Insurance Companies in Korea by AUM (as of the end of 2013)

Name	**AUM[21] ($ billion)**	**Annual Total Return[22]**
Samsung Life Insurance	147.30	4.3%
Hanwha Life Insurance	59.02	5.0%
Kyobo Life Insurance	52.64	4.9%
NH Life Insurance	43.28	4.3%
ING Life Insurance	15.75	4.8%
Shinhan Life Insurance	14.97	4.9%
Tong Yang Life Insurance	14.42	4.9%
Heungkuk Life Insurance	13.30	4.9%
Allianz Life Insurance	12.33	4.7%
Mirae Asset Life Insurance	11.84	4.7%

(Source: Derived from Korea Life Insurance Association[23])

MMAA (http://www.mmaa.or.kr/contents.action?menuid+16),
PMAA (https://www.pmaa.or.kr/police/front/01_Introduce/Management/Property.jsp),
KFOCU (http://www.sogong.com/intro/intro.do?seq=9&mseq=1),
SEMA (http://www.sema.or.kr/front/contents.do).

[21] Exchange rate: 1USD = 1047.98KRW, Google Finance as of 10/28/14

[22] Realized annual return in 2013

[23] Available at http://www.klia.or.kr/consumer/consumer_0502.do

4) Sovereign Wealth Fund

In July 2005, Korea Investment Corporation (KIC) was established under the KIC Act[24] as the first sovereign wealth fund in Korea. The fund is sponsored by the Ministry of Strategy and Finance (MOSF) and the Bank of Korea (BOK, the Korean central bank). Its investment guidelines and benchmarks are set by the sponsors but investment decisions are made independently. It is notable that the fund can invest only in foreign assets due to the restriction by law. As of 2013, the fund's total AUM is $72 billion with the annual total return of 9.09% in 2013.

4.1.2 Asset Allocations to Alternative Investments and Real Estate

The major Korean institutional investors are recently increasing asset allocations to alternative investments, including real estate, infrastructure, and private equity funds, in which real estate investments take a substantial part. According to the National Assembly Budget Office which value the performance of the three public pension funds and the KIC, as of the end of 2013, NPS's allocation to alternative asset class was 9.5%, increased by 1.1% YoY. KTP, GEPS and KIC deployed 14.9% (+ 0.7% YoY), 15.0% (+ 3.1% YoY), and 7.9% (+ 0.1% YoY) of their AUM respectively into alternative investments. Based on the data from NPS's website and KIC's annual reports, NPS and KIC hold real estate portfolios, respectively 4.2% (+ 0.9% YoY) and 1.5% (- 0.1% YoY) of their total investments as of the end of 2013. Real estate investments took up 44% and 19% in the alternative investment portfolio of NPS and KIC respectively. The author was not able to find KTP's and GEPS's level of allocation to real estate because they do not open the specific information to the public. Given that NPS has lead institutional real estate investments by the

[24] Korea Investment Corporation Act (Amended, 2011). Available at http://www.law.go.kr

number and volume of investments, it can be assumed that KPS and GEPS would not invest in real estate assets more than NPS in terms of percentage in alternative investment portfolio (See Exhibit 4-4).

Exhibit 4-4 Alternative and Real Estate Investment Trend of Government-sponsored Pension Funds and SWF

(Unit[25]: $ billion)

		2013		2012		2011	
NPS	Investments	406.87	100.00%	373.66	100.00%	332.54	100.00%
	Alternative	38.45	9.45%	31.49	8.43%	25.95	7.80%
	Real Estate	16.88	4.15%	12.30	3.29%	9.06	2.72%
KTP*	Investments	10.88	100.00%	10.11	100.00%	9.06	100.00%
	Alternative	1.62	14.91%	1.43	14.15%	1.43	15.79%
GEPS*	Investments	3.82	100.00%	4.01	100.00%	4.29	100.00%
	Alternative	0.57	15.00%	0.48	11.90%	0.67	15.56%
KIC	Investments	72.00	100.00%	56.62	100.00%	42.86	100.00%
	Alternative	5.70	7.92%	3.46	6.11%	2.37	5.53%
	Real Estate	1.10	1.53%	0.91	1.61%	0.61	1.42%

* Data for asset allocations to real estate of KTP and GEPS are not available.
(Source: The National Assembly Budget Office, KIC Annual Reports 2011-2013, the Internet[26])

For the major mutual aid associations, the author excludes MMAA because it discloses its specific investing information only to its members. It is observed that most of the major mutual aid associations are also recently expanding their alternative investments with a significant focus on real estate investment. Except for KFOCU which allocated 10.53% to real estate, the major mutual

[25] Exchange rate: 1USD = 1047.98KRW, Google Finance as of 10/28/14.

[26] NPS (http://fund.nps.or.kr/jsppage/fund/mcs_e/mcs_e_04_01_01.jsp).

aid associations have more than 25% of total portfolio in real estate. SEMA has the largest capital allocation to real estate with almost half of its total investment assets.

Exhibit 4-5 Alternative and Real Estate Investment Trend of Major Mutual Aid Associations

(Unit[27]: $ million)

		2013		2012		2011	
KTCU	Investments	15,575	100.00%	13,259	100.00%	11,569	100.00%
	Alternative	5,691	36.54%	4,717	35.57%	4,195	36.26%
	Real Estate[28]	4,764	30.59%	4,193	31.62%	3,845	33.24%
POBA	Investments	6,069	100.00%	5,207	100.00%	4,506	100.00%
	Alternative	2,553	42.08%	1,819	34.93%	1,786	39.64%
	Real Estate[29]	1,607	26.48%	1,137	21.84%	878	19.48%
PMAA	Investments	1,533	100.00%	1,396	100.00%	1,253	100.00%
	Alternative	478	31.18%	366	26.25%	310	24.75%
	Real Estate	423	27.57%	342	24.47%	296	23.61%
KFOCU	Investments	399	100.00%	352	100.00%	295	100.00%
	Alternative	73	18.18%	67	18.97%	88	29.77%
	Real Estate[30]	42	10.53%				
SEMA	Investments	1,941	100.00%	1,315	100.00%	937	100.00%
	Alternative	990	51.03%	802	61.03%	495	52.85%
	Real Estate	885	45.62%	678	51.60%	408	43.58%

(Source: The Internet[31])

[27] Exchange rate: 1USD = 1047.98KRW, Google Finance as of 10/28/14

[28] Specified as Real Assets, which include real estate and others.

[29] Investments in real estate development.

[30] Information available only of 2013.

[31] KTCU (http://www.ktcu.or.kr/infor/condition02.jsp)
POBA (http://www.poba.or.kr/info/assetManagement02.jsp?gMenuCode=CT06030500)
PMAA (https://www.pmaa.or.kr/police/front/01_Introduce/Management/Property2.jsp)

As discussed in the section 4.1.1, life insurers have relatively higher level of regulations which make them hesitate to take higher risk in their investments. Nam (2014) asserts that "ALM (Asset-Liability Matching) is the basic principle of life insurer's asset management. To achieve ALM, life insurance companies invest the largest part of their operating assets in bonds." Considering these nature of the insurers, unsurprisingly, their capital allocation to real estate has been decreasing during the last three years (2011 to 2013). Although the total capital amount in real estate asset class of the top 10 insurers has increased from $12,764 million in 2011 to $13,235 million, it is found that the percentage allocation to real estate has dropped by 0.57% from 4.0% in 2011. While the total AUM of the insurers has grown by 9.96% during the period, the total capital allocated to real estate has grown only by 1.83% (See Exhibit 4-6).

Exhibit 4-6 Real Estate Investment Trend of the Top 10 Life Insurance Companies

(Unit[32]: $ million)

		2013		2012		2011	
Samsung Life Insurance	Investments	147,160	100.00%	143,684	100.00%	124,335	100.00%
	Real Estate	5,811	3.95%	5,763	4.01%	5,433	4.37%
Hanwha Life Insurance	Investments	59,022	100.00%	55,846	100.00%	49,200	100.00%
	Real Estate	3,366	5.70%	3,251	5.82%	3,224	6.55%
Kyobo Life Insurance	Investments	53,641	100.00%	51,054	100.00%	45,378	100.00%
	Real Estate	2,088	3.89%	2,165	4.24%	2,205	4.86%
NH Life Insurance	Investments	43,282	100.00%	40,549	100.00%	35,040	100.00%
	Real Estate	119	0.28%	119	0.29%	102	0.29%
ING Life Insurance	Investments	15,748	100.00%	15,137	100.00%	13,278	100.00%
	Real Estate	0	0.00%	0	0.00%	0	0.00%

KFOCU (http://www.sogong.com/intro/intro.do?seq=9&mseq=5)
SEMA (http://www.sema.or.kr/front/contents.do)

[32] Exchange rate: 1USD = 1047.98KRW, Google Finance as of 10/28/14

Shinhan Life Insurance	Investments	14,966	100.00%	13,451	100.00%	10,804	100.00%
	Real Estate	64	0.43%	31	0.23%	30	0.27%
Tong Yang Life Insurance	Investments	14,415	100.00%	13,861	100.00%	10,912	100.00%
	Real Estate	581	4.03%	619	4.47%	622	5.70%
Heungkuk Life Insurance	Investments	13,297	100.00%	12,302	100.00%	9,902	100.00%
	Real Estate	721	5.43%	726	5.90%	734	7.41%
Allianz Life Insurance	Investments	12,334	100.00%	12,344	100.00%	11,501	100.00%
	Real Estate	308	2.50%	313	2.54%	323	2.80%
Mirae Asset Life Insurance	Investments	11,836	100.00%	11,010	100.00%	8,624	100.00%
	Real Estate	176	1.48%	178	1.62%	92	1.06%

(Source: Derived from Korea Life Insurance Association[33])

4.1.3 Section Summary

The major Korean institutional investors can be categorized into Pension Funds, Mutual Aid Associations, Life Insures, and Sovereign Wealth Fund. They include three public pension funds, six mutual aid associations, ten life insurers (top ten by AUM volume), and KIC, the only sovereign wealth fund, holding AUM of $429 billion, $39 billion, $386 billion, and $72 billion respectively as of the end of 2013, approaching $1 trillion of investments.

As for the asset allocation to real estate, the author could find several trends in their asset allocation to real estate. In terms of capital volume, most of the institutions have increasingly included real estate asset class into their investment portfolio as the total volume of their investment assets has annually grown by 11.61% to $905 billion in 2013 from $726 billion in 2011. It is also notable that the pension funds and SWF, and the mutual aid associations have increased their allocation to real

[33] Available at http://www.klia.or.kr/consumer/consumer_0502.do

estate at the annualized growth rates of 36.36% and 19.27% respectively while the life insurers have reduced its exposure to real estate asset from 4.00% in 2011 to 3.43% in 2013.

Exhibit 4-7 Summary of Asset Allocation to Alternative/Real Estate Investments

	Pension Funds and SWF	**Mutual Aid Association[34]**	**Life Insurers**
Number	4	5	10
Total AUM (2013, $ billion)	493,570	25,517	385,701
Annualized Growth (2011-2013)	12.67%	17.26%	9.96%
Alternative (2013, $ billion)	46,340	9,785	-
Allocation	9.39%	38.35%	-
Annualized Growth (2011-2013)	23.42%	19.31%	-
Real Estate (2013, $ billion)	18,532*	7,721	13,235
Allocation	3.75%**	30.26%	3.43%
Annualized Growth (2011-2013)	36.36%***	19.27%	1.83%

* Based on the estimated allocation of 3.75%.
** Estimated by the author, weighted-average of the allocation to real estate of NPS (4.15%) and KIC (1.53%).
*** Annualized growth of asset allocation to real estate of NPS and KIC only.

34 Exclusive of Military Mutual Aid Association (MMAA) due to unavailability of specific information.

4.2 Overseas Real Estate Investment of Korean Institutional Investors

In recent years, names of some Korean institutions have been often mentioned in sizable global real estate transactions. This shows that they have been expanding their investment activities to the foreign real estate markets. Jones Lang LaSalle (2013), a global real estate service firm, asserts that "the dynamic of large capital inflows and a small domestic market means that they have little option but to seek opportunities outside their home market". In this section, we will delve into the current circumstances regarding their increasing investments in overseas real estate.

4.2.1 Current Trends/Issues regarding Overseas Real Estate Investment

Domestic Market Size

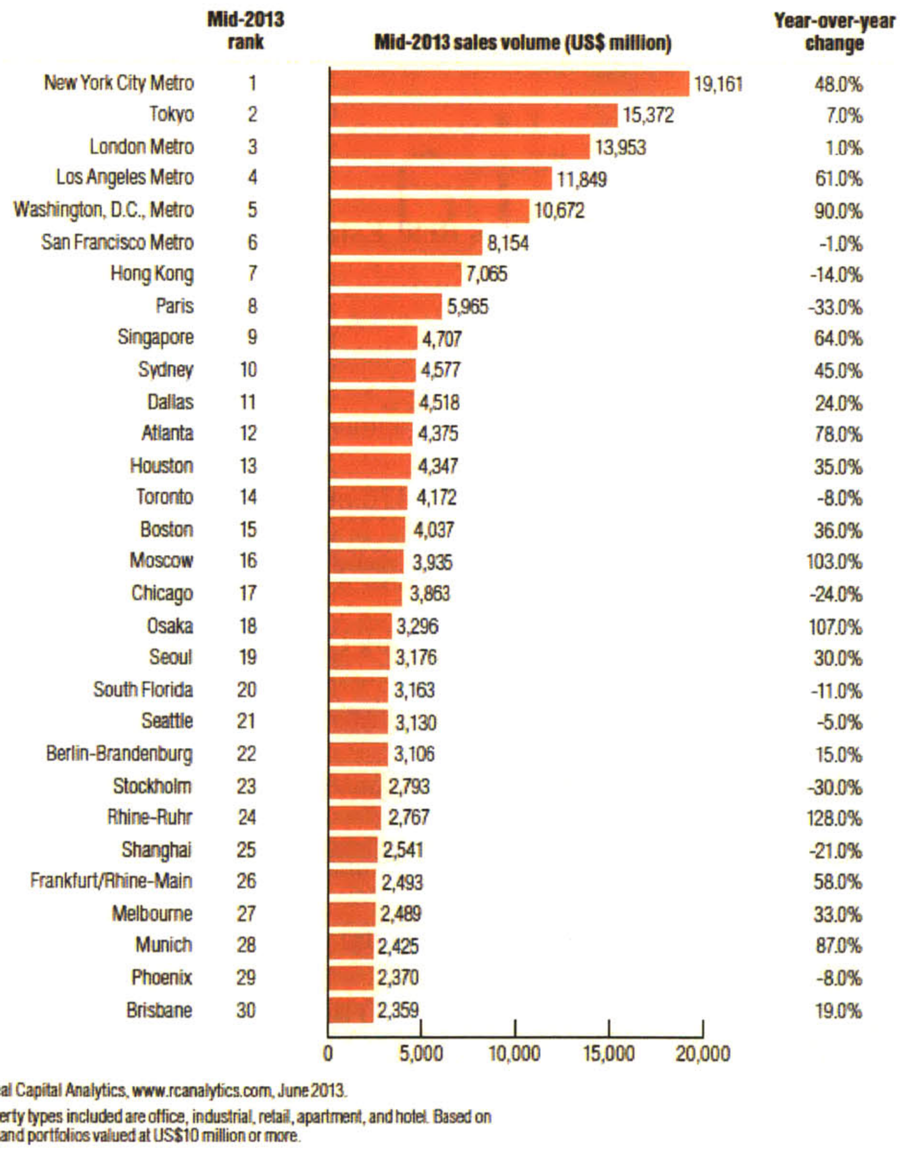
Based on sales volume as of mid-2013, according to Real Capital Analytics, the capital of Korea, Seoul[35] is ranked 19th in the top 30 global markets with $3,176 million of sales volume. In terms of transaction volume, Seoul is a fifth that of Tokyo (ranked 2nd/$15,372 million) and half that of Hong Kong (ranked 7th/$7,065 million). Furthermore, New York City (ranked 1st/$19,161 million) and London (ranked 3rd/$13,593 million) are, respectively, 6 times and 4 times larger than Seoul (See Exhibit 4-8). In an industry survey (2014)[36], a fund manager mentions that in the Korea real estate market, "there is so much domestic capital from life insurance companies and pension funds" and "cap rates have compressed to 5 percent and there is no rental growth, so it is all basically just cap rate compression and low interest rates". Also, according to the survey, it is found that Korea

[35] The largest metro city in Korea where more than a fourth of the nation's population lives.

[36] PWC, ULI. "Emerging Trends in Real Estate® Asia Pacific 2014".

remains very insular in real estate terms because of "a shortage of suitable assets" and "the fact that there is already far more capital held by South Korean institutions – in particular local pension funds". In short, the Korea real estate market has been suffering from the lack of investible assets along with cap compression, which resulted mainly from the overflowing capital from domestic institutions.

Exhibit 4-8 Top 30 Global Markets by Sales Volume as of Mid-2013



Source: Real Capital Analytics, www.rcanalytics.com, June 2013.

Note: Property types included are office, industrial, retail, apartment, and hotel. Based on properties and portfolios valued at US$10 million or more.

Surging AUM Volume

As the volume of subscriptions to pension funds and mutual aid associations has been rapidly growing, assets under these institutions' management have been drastically increasing. As for pension funds, the major three funds' AUM (Asset Under Management) has almost doubled for the last five years from 2007 with KRW 232 trillion. During the last three years, as discussed in the section 4.1.2, the AUM of major mutual aid associations has increased by 17.26%. With the rapid increase in AUM, Korean institutions have realized that they need to diversify their investment portfolios, expanding their investment activities into alternative investment including foreign real estate.

Low Interest Rate Environment

The recent low interest rate environment has been forcing Korean institutions to enhance their investment returns. According to Hana Institute of Finance[37] (2014), a research firm of Hana Financial Group, overseas real estate investments had been mainly led by NPS, KTP and KTCU until 2011, but later other investors including SEMA, POBA, PMAA and Korea Post have expanded their investment into overseas real estate due to the low interest trends. The firm also asserts that a small number of Korean insurance companies, including Mirae Asset Life Insurance and Hanwha Life Insurance, participated in foreign real estate investing in the past, but after 2013, more than 10 Korean insurance companies have begun to invest in foreign real estate assets.

[37] Hana Institute of Finance. 2014. "Current Status and Outlook of Domestic Institutional Investors' Overseas Real Estate Investment". Real Estate Finance Issues, January 21, Vol. 12.

In short, these three key issues, the small domestic market size, the increasing AUM volume, and the low interest trends, have been driving the major Korean institutions to tap foreign real estate markets for investment opportunities. It is understandable that they have to deploy their overflowing capital into the outside of the relatively small and low-yielding domestic real estate market in order to diversify portfolios and to enhance returns.

4.2.2 Alternatives in Overseas Real Estate Investment: Diversification and High Yield

As discussed in the section 4.2.1, Korean institutions have been increasingly investing in foreign real estate assets, targeting higher returns while diversifying their investment portfolio. Conventionally, Korean institutions have focused on private equity real estate investments mostly in gateway cities for their foreign real estate investing. According to Real Capital Analytics[38], the capital flow from Korea to the US market for the past two years indicates that $2,156 million has flowed into the major metros while $904 million has been injected into the non-major metros (See Exhibit 4-9 and 4-10). However, they have faced a significant issue which damps down such equity investments, the compressing cap rates. The number of global investors vying for core properties in major markets like gateway cities has been surging since the GFC, ramping up the price level of core assets and lowering possibility of securing favorable deals. For this reason, like other global investors, Korean institutions also balked at the high prices of core properties and reconsidered private equity real estate investments.

[38] Real Capital Analytics, Cross-Border Capital Tracker, Accessed November 2014.

Exhibit 4-9 Top Market Destinations (Major Metros in the US) of Capital Originated from Korea

(Unit: $ million)

Market	Total Properties	Total Volume
Washington DC	3	$811.0
Chicago	3	$554.4
DC VA Suburbs	1	$321.0
Inland Empire	9	$231.0
Los Angeles	6	$145.6
Northern New Jersey	1	$40.0
Orange County	2	$36.6
Manhattan	1	$16.4
Total	**26**	**$2,156.0**

Transactions closed or under contract, valued at $2.5 million or more, during the past 24 months
(Source: Real Capital Analytics)

Exhibit 4-10 Top Market Destinations (Non-Major Metros in the US) of Capital Originated from Korea

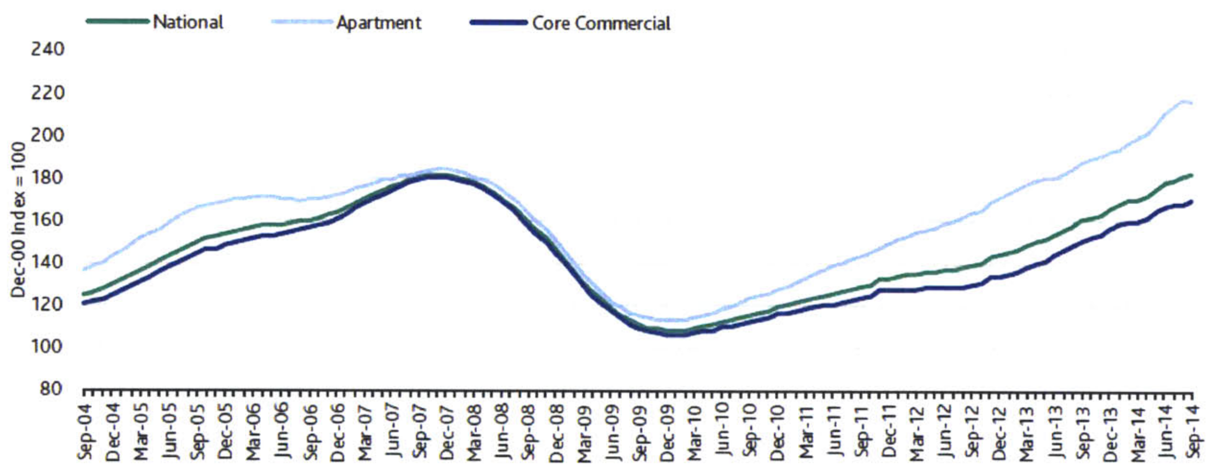
(Unit: $ million)

Market	Total Properties	Total Volume
Houston	2	$575.8
Seattle	3	$113.9
San Diego	1	$11.9
Cleveland	1	$7.3
Detroit	2	$5.0
Charlotte	1	$3.0
Total	**10**	**$716.8**

Transactions closed or under contract, valued at $2.5 million or more, during the past 24 months
(Source: Real Capital Analytics)

According to Moody's Investor Service (2014), as of September 2014, Moody's/RCA Commercial Property Price Indices (CPPI)[39] show that the national all property composite index has reached to the pre-crisis level this year. Even though the national level price index has been driven by the surge in the apartment prices which exceed the pre-crisis level by 17.8%, the core property price level is just 5.8% below the pre-crisis peak (see Exhibit 4-11). Furthermore, CPPI indicates that the prices of office properties in CBD, which can fall into the target investment subjects of Korean institutions, have already surpassed the pre-crisis peak level last year, increasing by almost 18% for the last 12 months (see Exhibit 4-12).

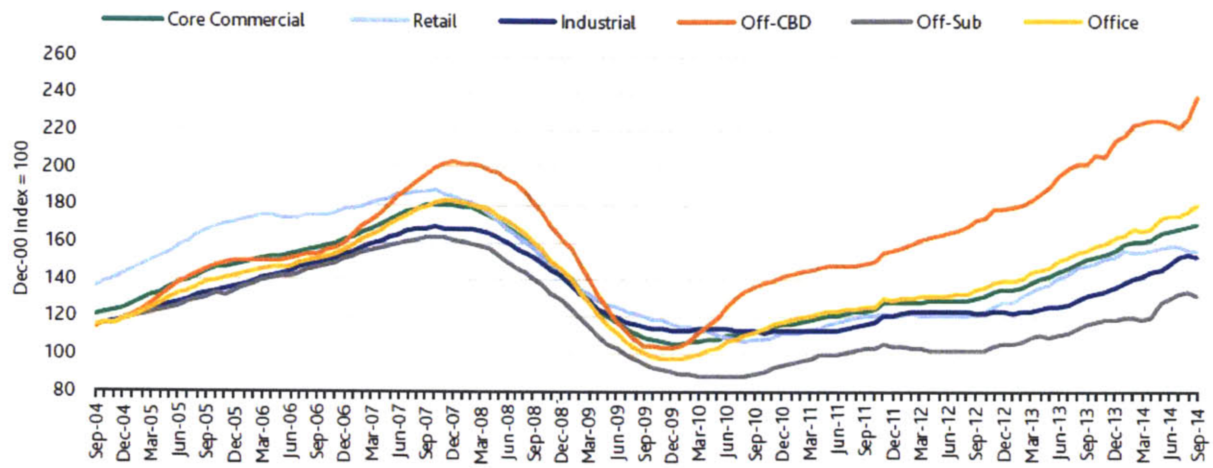
Exhibit 4-11 Moody's/RCA CPPI: National, Apartment and Core Commercial Composite Indices



(Source: Real Capital Analytics, Moody's Investor Service)

[39] CPPI was originally published under the name of The Moodys/REAL commercial property index (CPPI) until 2011. CPPI is a periodic same-property round-trip investment price change index of the U.S. commercial investment property market based on data from MIT Center for Real Estate industry partner Real Capital Analytics, Inc (RCA). The methodology for index construction has been developed by the MIT/CRE through a project undertaken in cooperation with a consortium of firms including RCA and Real Estate Analytics, LLC (REAL). The index has been developed with the objective of supporting the trading of commercial property price derivatives. The index is designed to track same-property realized round-trip price changes based purely on the documented prices in completed, contemporary property transactions. The index uses no appraisal valuations. The methodology employed to construct the index is a repeat-sales regression (RSR), as described in detail in Geltner & Pollakowski (2007). In 2011 production and publication of the original CPPI ceased, but a second generation monthly index suite was launched by Moody's and RCA in May 2012 as the Moody's/RCA CPPI, building on the original methodology.

Exhibit 4-12 Moody's/RCA CPPI: Core Commercial Sector Composite Indices



(Source: Real Capital Analytics, Moody's Investor Service)

The Bell (2013)[40], a Korea-based newspaper, mentions that the investment preference shift from equity to debt has been found among Korean institutions in their overseas real estate investing due to the issue of high prices of core properties. The newspaper also points out that the change in investment types is interpreted to be based on the expectation that the high price level will not enable them to achieve a sizable capital gain at disposal. This investment landscape has made Korean institutional investors prefer debt investments which provide relatively lower returns but stable incomes within the more secured position in the capital stack. Hana Institute of Finance (2014)[41] asserts that many Korean institutions eschewed an investment strategy of only equity investment and started investing in senior debt, mezzanine loans, MBS, etc. from 2013.

[40] The Bell [Seoul, Korea]. 2013. "Look Back on Overseas Real Estate Investment in 2013, 1. Emerging Attraction of Debt Investment in the Second Half". December 26. Available at http://www.thebell.co.kr/front/news_print_free.asp?key=201312260100041640002547

[41] Hana Institute of Finance. 2014. "Current Status and Outlook of Domestic Institutional Investors' Overseas Real Estate Investment". Real Estate Finance Issues, January 21, Vol. 12.

4.2.3 Section Summary

Korean institutions with abundant capital ready to be invested have been recently trying to find out investment opportunities with higher returns outside the nation due to lack of investible properties in the domestic market and the low interest trends. As major global real estate markets have been increasingly competitive with record high price levels, however, they are changing the direction toward debt away from equity for their new investments. We will discuss their debt investment activities in detail in the next section.

4.3 Interest in Real Estate Mezzanine Investment

In the previous sections, we have looked into who Korean institutional investors are, why they have interest in overseas real estate, and what have driven them seek for debt investments. In this section, we will investigate the Korean institutions' interest in real estate mezzanine investment through an analysis of private funds which set up for overseas real estate debt investments. This will help us clarify their interest in real estate mezzanine investments.

4.3.1 Analysis of debt-focused private real estate funds

The author conducted an analysis of Korea-based, debt-focused private real estate funds, which have been set up recently and invested in foreign real estate debt. The analysis is designed to understand the current foreign real estate debt investments of Korean institutions. As almost all foreign real estate debt investments by Korean institutions have been executed through financial vehicles (i.e. private real estate funds), the author could track overall foreign real estate debt investments through this analysis.

The analysis is structured as described below:

- List real estate funds that have been established and registered in Korea from 1Q 2013 to 2Q 2014;
- Search for detailed information of each fund.
- Sort debt-focused funds out from the list.
- Figure out characteristics of the debt-focused funds.

The author found that during the six consecutive quarters studied, 12 different investment/asset management companies have set up 36 private funds[42] aiming at investing in the foreign real estate asset class including both equity and debt. Eleven of the private funds have an investment structure of Fund of Funds (FOF), but the author took those funds into account in that they have also been set up only for foreign real estate investments. The amount of initial commitments[43] for these funds totals KRW 3,102 billion ($2.96 billion[44]) with the average size of KRW 86 billion ($82.22 million). These funds have been deployed to foreign real estate markets for private equity, debt and other REITs investments. As for the debt-focused funds, 13 funds have been set up for foreign real estate debt investments by five investment/asset managers. In terms of initial commitments, these debt funds account for 32.83% and total KRW 1,018 billion ($0.97 billion) with the average size of KRW 78 billion ($74.73 million). Exhibit 4-13 shows the profiles of these debt funds.

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[42] See the Appendix 1.

[43] The initial commitment can be quite a bit smaller than actual capital invested because it can be the minimum amount of capital required to set up a fund by law.

[44] Exchange rate: 1USD = 1047.98KRW, Google Finance as of 10/28/14

Exhibit 4-13-1 Profiles of Debt-focused Private Real Estate Funds

Name of Fund	Set-up Date	Fund Type[45]	Investment Type	Product Type	Property Type
Hyundai YouFirst Private Real Estate Investment Trust 13	May-13	RE	Debt	Senior	Hotel
FG RED Private Real Estate Investment Trust 1	Jul-13	RE	Debt	MBS	Residence
Hanwha Debt Strategy Private Real Estate Investment Trust 2 (FOF)	Aug-13	FOF	Debt	Mezz/ B-note/ Pref. Equity	N/A
Hyundai YouFirst Private Real Estate Investment Trust 14	Aug-13	RE	Debt	Senior	Office
Hyundai YouFirst Private Real Estate Investment Trust 16	Sep-13	RE	Debt	Mezz	Office
FG USRED Private Real Estate Trust 2	Nov-13	RE	Debt	Pref. Equity	Office
FG USRED Private Real Estate Investment Trust 3	Dec-13	RE	Debt	Mezz	Office
FG Euro RED Private Real Estate Investment Trust 1	Dec-13	RE	Debt	Mezz	Office
Hanwha Debt Strategy Private Real Estate Investment Trust 3	Dec-13	RE	Debt	Mezz	Office
Hanwha Debt Strategy Private Real Estate Investment Trust 4	Mar-14	RE	Debt	Mezz	Office
Hyundai YouFirst Private Real Estate Investment Trust 17	Apr-14	RE	Debt	Mezz	Office
LaSalle Private Real Estate Investment Trust 1	May-14	RE	Debt	Mezz	Office
Samsung SRA Private Real Estate Investment Trust 8	Jun-14	RE	Debt	Pref. Equity	Office

[45] Fund Type: Real Estate Fund (RE), Fund of Funds (FOF)

Exhibit 4-13-2 Profiles of Debt-focused Private Real Estate Funds (Continued)

Name of Fund	Investment Region	Net Asset[46] ($ mil.)	Term (year)	Investment/ Asset Manager	Key Investors
Hyundai YouFirst Private Real Estate Investment Trust 13	UK	153.98	5	Hyundai Asset Management	KTCU, Dongbu Ins.
FG RED Private Real Estate Investment Trust 1	US	10.67	5	FG Asset Management	
Hanwha Debt Strategy Private Real Estate Investment Trust 2 (FOF)	US/ Europe	23.62	N/A	Hanwha Asset Management	
Hyundai YouFirst Private Real Estate Investment Trust 14	UK	117.19	4	Hyundai Asset Management	KFCC, NFFC, Dongbu Ins.
Hyundai YouFirst Private Real Estate Investment Trust 16	US	78.17	10	Hyundai Asset Management	KTCU, SEMA
FG USRED Private Real Estate Trust 2	US	79.45	5	FG Asset Management	KTCU
FG USRED Private Real Estate Investment Trust 3	US	19.63	5	FG Asset Management	
FG Euro RED Private Real Estate Investment Trust 1	UK	71.37	5	FG Asset Management	
Hanwha Debt Strategy Private Real Estate Investment Trust 3	US	70.76	10	Hanwha Asset Management	Hanwha Life Ins.
Hanwha Debt Strategy Private Real Estate Investment Trust 4	US	23.64	5	Hanwha Asset Management	
Hyundai YouFirst Private Real Estate Investment Trust 17	US	199.48	9	Hyundai Asset Management	KTCU
LaSalle Private Real Estate Investment Trust 1	France	41.49	5	LaSalle Investment Management	SEMA
Samsung SRA Private Real Estate Investment Trust 8	US	98.91	5	Samsung SRA Asset Management	

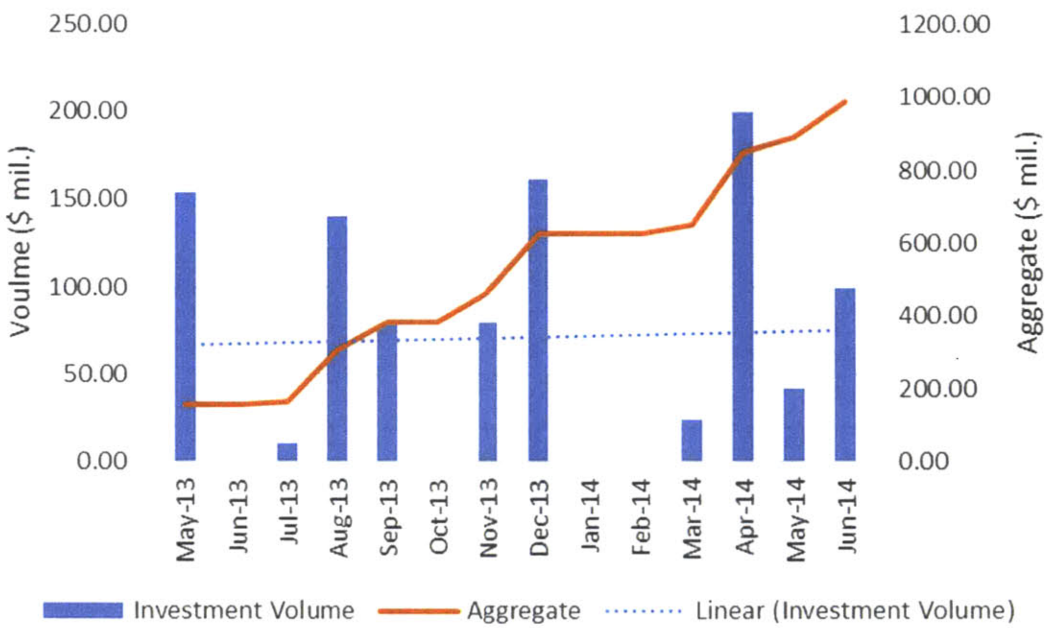
(Source: Korea Financial Investment Association, Financial Supervisory Service)

[46] Net Asset, as of Oct. 2014

Debt Investing Trends

During the time from Q1 2013 to Q2 2014, Korean investors, mostly institutions, have deployed almost $1.0 billion into overseas real estate debt markets through private real estate funds. Debt investment activities peaked in April 2014 with $199 million of net assets. In average, around $70 million has been invested in debt products per month.

Exhibit 4-14 Debt Investment through Private Real Estate Funds (May 2013 - June 2014)



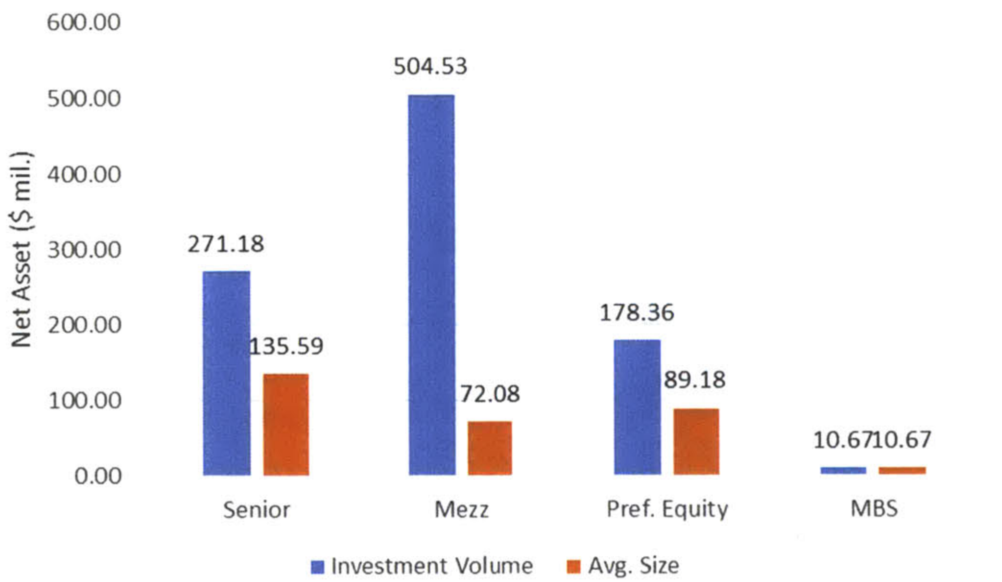
Debt Investment Product Type[47]

It is notable that mezzanine loans, totaling $504 million, take up more than half of the investment

[47] Exclusive of the FOF, due to unavailability of data.

volume (net asset) as a means of debt investment, outranking senior loans which account for 28%. Also, preferred equity investments have shown a considerable volume of $178 million. Thus, the mezzanine financing investments (i.e. mezzanine loans and preferred equity) have lead the overseas real estate debt investments, accounting for more than 70% of total investment volume. As for the average investment size, senior loans ($136 million) are almost double the size of mezzanine loans ($72 million).

Exhibit 4-15 Debt Investment Product Type (Exclusive of FOF)



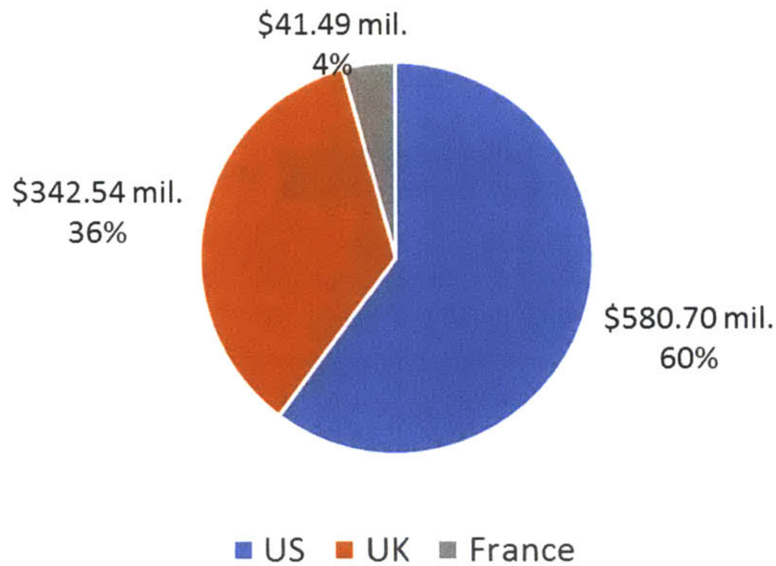
Property Type

Except for a fund invested in a senior loan portfolio secured by hotel properties and the FOF, the subject private funds have been focusing on office properties.

Geography[48]

The subject funds are heavily focused on the U.S. and the U.K. for their investment destinations. The US real estate debt markets have been most favored with $581 million of capital invested (60% of the total investment volume), followed by U.K. where $343 million has deployed to (36% of the total investment volume).

Exhibit 4-16 Investment Region (Exclusive of FOF)



Investment Term[49]

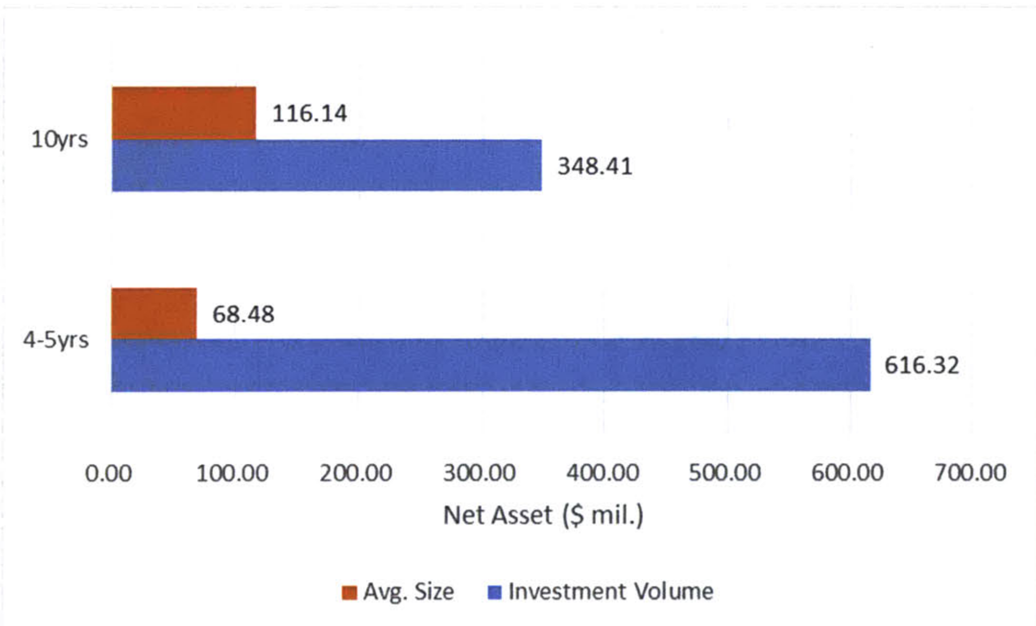
It is observed that nine funds out of the subject funds have an investment term between 4 to 5 years, taking up 64% of the total investment volume. The rest three funds, accounting for 36% of the

[48] Exclusive of the FOF, due to unavailability of data.

[49] Exclusive of the FOF, due to unavailability of data.

total volume, have a 10-year investment term, but their average investment size ($116 mil.) is almost two times the size of short-term funds ($68 million). As for the investment term, the majority of the subject funds has a 4 to 5-year investment term.

Exhibit 4-17 Investment Term (Exclusive of FOF)



Key Investors

Through searching news articles for the information of Korean investors who committed capital to the subject funds, the author acquired the information of key investors of seven funds. It is notable that the Korea Teachers Credit Union (KTCU), the largest Korean mutual aid association, has been a key investor for four funds, showing diversification of debt strategies including senior mortgage, mezzanine debt and preferred equity investment.

4.3.2 Section Summary

For the time period of 6 consecutive quarters from Q1 2013, through private real estate funds, Korean institutional investors have allocated 33% of their real estate portfolio to debt investments with monthly average of $70 million. Among the debt products, they have opted for mezzanine financing accounting for more than 70% of the total investment volume. They have focused on office properties for their debt investing with a strong geographic preference for the U.S. and U.K. Additionally, it is observed that KTCU has been playing an active role in overseas real estate debt investments.

4.4 Chapter Conclusion

In this chapter, we have explored the profiles of Korean institutional investors including their asset allocation to real estate and their increasing interest in overseas real estate debt investments especially for mezzanine debt.

Falling into four categories, Pension Funds, Mutual Aid Associations, Life Insurers, and Sovereign Wealth Fund, the major Korean institutions hold AUM of $926 billion in total as of 2013 with real estate portfolio of 4.36% of the AUM. For the last three years from 2011, the size of their AUM has annually grown by 11.61%, leading to drastic increase in their asset allocation to real estate. The Pension Funds and SWF, and Mutual Aid Associations have increased the allocation level at the rate of 36.36% and 19.27% per annum, respectively.

With the rapidly growing amount of their AUM, small size of the domestic market and the low interest trends have been forcing Korean institutions to look into foreign real estate markets for the portfolio diversification and the return enhancement. After facing the issue of compressing cap rates in the major global real estate markets, however, they have started to reconsider private equity real estate investments and find out other investment destinations. Thus, despite lower returns, they have been drawn to debt investment due to its stable incomes and a more secure position in the capital stack.

Through the analysis of private real estate funds, we have found that Korean institutions have placed $70 million per month in average in debt investments mostly in the US and UK markets from Q1 2013 to Q2 2014. Debt investments accounted for 33% of their capital allocated to foreign real estate investments. It is notable that 70% of the debt investment volume was for mezzanine investments, explicitly showing that they have preferred mezzanine investments to any other debt investment products for their foreign real estate debt investing.

In the next chapter, to see the debt investment landscape of Korean institutions, we will delve into their debt investment activities more specifically through discussing results from interviews with Korea-based asset managers who have been working with Korean institutions for debt investments.

Chapter 5 Foreign Real Estate Debt Investments of Korean Institutional Investors (Interviews with Korea-Based Asset Managers)

After reviewing the profiles and foreign real estate debt investments of Korean institutional investors, now we will focus on the investment environment surrounding their investments in foreign real estate debt through investigating the results from interviews with Korea-based asset managers. This chapter will help us understand why Korean institutions have favored mezzanine debt investments and whether they will continue to find out debt investment opportunities, especially for mezzanine debt, in the major global real estate markets.

5.1 Objectives

The author conducted open-ended interviews with fund managers of Korea-based real estate asset management firms in order to look into their current debt investment activities in global real estate markets. As mentioned in the section 4.3, almost every single debt investment in foreign real estate markets by Korean institutional investors has been executed through a financial vehicle, (i.e. a collective investment scheme) set up by Korea-based asset managers. Through the interviews with three fund managers belonging to major Korean asset management companies, the author aims at understanding the recent investment activities, trends and outlook regarding debt, especially mezzanine debt, investments of Korean institutional investors.

5.2 Interviewee Profile and Selection

The interviewee companies are major asset managers in Korea that have substantial experience in mezzanine investments in the US and UK real estate markets during recent years. They have been representing major Korean institutional investors for their real estate investments including private/public equity and debt. Exhibit 5-1 lists the names of the institutions represented by the interviewees.

Profile Summary

- All interviewees belong to asset management firms headquartered in Seoul, Korea.
- The interviewees were fund managers at principal and vice president level in their respective firms.
- All interviewees have personal experience in real estate debt investments on behalf of Korean institutional investors.
- One interview was conducted in-person and two interviews were by telephone.
- All interviews were conducted in Korean.
- All interviews lasted less than 60 minutes.
- All interviewees were individuals.

Exhibit 5-1 List of Participating Real Estate Asset Management Firms

FG Asset Management
Hanwha Asset Management
Hyundai Asset Management

The names of the individual interviewees have not been disclosed. Exhibit 5-2 annotates the interviewees and lists interviewee location, interview date and details of interviewee firms including total real estate investments asset under management, the foreign real estate debt share of total real estate investments, and real estate debt investment experience with Korean institutional investors. AM1 in Exhibit 5-2 means one of the firms in Exhibit 5-1. The information in this chapter uses the annotation stated in Exhibit 5-2 to show the answers from the interviewees.

Exhibit 5-2 Interviewee and Interviewee Firm Details

Notation	**Interviewee Location**	**Interview Date**	**Total Real Estate Investments AUM**	**Foreign RE Debt Share of Total RE Investments**	**Real Estate Debt Investment Experience**
AM1	Seoul, Korea	11/6/2014	$1.2 B	45%	Senior, Mezzanine in US and UK
AM2	Seoul, Korea	11/4/2014	$1.9 B	55%	Mezzanine, Preferred Equity, Distressed in US, UK and Europe
AM3	NYC, US	11/20/2014	$0.4 B	85%	Senior, B-notes, Mezzanine, Preferred Equity in US and UK

5.3 Research Methodology

An open-ended interview methodology was chosen in order to gain in-depth knowledge on the topic and current issues, which are, otherwise, difficult to discover. Given the limited number of asset managers in Korea who have experience in foreign real estate debt investments, open-ended interviews enabled the author to explore the specific circumstance surrounding Korean institutional investors regarding real estate debt investments.

5.4 Questionnaire

- How much is your firm's total real estate investment AUM?
- What kind of investors are the Korean institutional investors with whom you have worked on foreign real estate debt investments? (e.g. pension funds, insurers or SWFs)
- What percentage of the total AUM of real estate portfolio has been deployed in foreign real estate debt?
- How has your firm invested in foreign real estate debt between core, value-added and opportunistic investments?
- What types of debt investments have your firm been focusing on? (e.g. senior loans, mezzanine loans, b-notes, preferred equity or distressed debt)
- How have the debt investments been executed geographically? (North America, UK, Continental Europe, Asia(Ex-Korea), Australia)
- What are the target returns and investment period?
- What are the Key factors when your firm considers foreign real estate debt investment?
- What do you think of reasons that Korean institutional investors are investing in foreign real estate debt?
- What do you think of the current trends/issues regarding foreign real estate debt investment among Korean institutional investors?
- What will be the near-term trends in Korean institutional investor investments in real estate debt both within the US and globally?

5.5 Interview Responses

Type of Investors

The major types of investors who have been working with interviewees are pension funds, mutual aid associations, and insurance companies. It was also found that a credit cooperatives and a savings bank have invested in foreign real estate debt products through the interviewee firms. Based on the interview, KTCU is the most active Korean institutional investor, executing foreign real estate debt through two of the interviewee firms.

Increase in Allocation to Real Estate Debt Investments

The current levels of asset allocation to foreign real estate debt investments are 45%[AM1], 55%[AM2], and 85%[AM3], in terms of percentage of each firm's real estate investment portfolio. All interviewees stated that the levels have been rapidly increasing and the trend is expected to continue. Below are the reasons from the interviewees for the uptrend.

- For the recent two years, the demand for real estate debt investments, especially for mezzanine loans, has been dramatically increasing due to the latest hike in asset prices which has made the demand for private equity investments plummet.[AM1]
- As Korean institutions have recently recognized that the equity investment markets are at a peak level, they are increasingly looking for alternatives like mezzanine debt and preferred equity. In two or three years, it is highly likely that investors interest in equity investments will significantly diminish.[AM3]

Investment Strategies (Core, Value-added and Opportunistic)

Generally, real estate investment strategies can be categorized into three types, Core, Value-added and Opportunistic. Geltner et al (2013) state that an investment strategy "refers to the types of assets that the investment manager invests in, as well as certain key aspects of the management policies, especially the amount of financial leverage that may be used by the manager". These strategies can be defined as below[50].

- Core: Focusing on relatively safe, fully stabilized properties, core investments take relatively little financial leverage, targeting relatively low returns with little risk. The subject properties generally include classical institutional office, apartment, retail and industrial properties.

- Value Added: With a higher level of financial leverage, this strategy is a bit more aggressive than the core strategy. The subject properties are not fully stabilized or in need of some turnaround management. Otherwise, they may be smaller or less prime properties or locations.

- Opportunistic: Employing high amounts of financial leverage, this strategy is the most aggressive one, aiming for high returns with considerable risk. The subject investment assets may include land, development projects, properties in emerging markets, distressed debt, or properties or operating entities in need of considerable turnaround.

As for their investment strategies, all interviewees have taken core strategy for most of their foreign real estate debt investments. They unanimously agreed that they have to follow investment

[50] 'Commercial Real Estate Analysis and Investments', Geltner et al, 3e, page 679-682.

preferences of their clientele, Korean institutions, who have opted for core strategy for a long time due to their being familiar with the strategy. The following are points stated by the interviewees about investment strategies:

- While investing in foreign real estate debt with core strategy, the firm is trying to process value-added deals only if fully equipped with risk mitigants. It is difficult to invest in an opportunistic deal because most Korean institutions avoid opportunistic strategy due to its inherent high risk.[AM1]
- Recently, Korean institutions favor mezzanine debt investments with core strategy. However, based on the market environment, they have invested in distressed debt or mezzanine loans with PIK[51], which can be considered as an investment with value-added or opportunistic strategies.[AM2]
- As Korean institutions have a stereotyped notion that debt investment is a much safer destination for their real estate investing, opportunistic investments could not be chosen by them. However, sometimes they invest in opportunistic deals through committing capital into commingled funds, entrusting investments to the general partner (GP), the local investment managers of the funds.[AM3]

[51] A PIK (Payment In Kind) loan is a type of loan which typically does not provide for any cash flows from borrower to lender between the drawdown date and the maturity or refinancing date, not even interest or parts thereof (see mezzanine loan), thus making it an expensive, high-risk financing instrument. PIK is to be interpreted as interest accruing until maturity or refinancing. Sourced from Wikipedia, Accessed November 2014.

Type of Debt Investments

The author classified debt investments into senior debt, B-notes, mezzanine debt, preferred equity, and distressed debt. Definitions of each debt investment types are described below:

- Senior debt: a first priority mortgage loan secured by the underlying property
- B-note: a junior or subordinate participation in a first mortgage loan
- Mezzanine debt: a loan subordinated to the first mortgage but senior to the equity
- Preferred equity: a debt-like equity product, senior to common equity but junior to first mortgage.
- Distressed debt[52]: a loan needed to be modified or restructured due to insufficient cash flow generating from the underlying property to service the debt.

As preferred equity is generally and technically considered as a method of debt investing or mezzanine financing rather than equity investing by Korean institutions, it is included as a type of debt investments. The following shows the interviewees' investment experience of each type.

- Senior Debt [AM1, AM3]
- B-notes [AM3]
- Mezzanine Debt [AM1, AM2, AM3]
- Preferred Equity [AM2, AM3]

[52] The definition of distressed debt is derived from Babson Capital White Paper "Distressed Debt" January 2010. The paper also states that "loans trading 1,000 bps over LIBOR or for less 75 cents on the dollar are considered to be distressed" and that "this debt could be private or public, senior or junior, secured or unsecured."

- Distressed Debt [AM2]

As mezzanine debt is most favored by Korean institutions, all interviewees have experience in mezzanine debt. Below are some comments from the interviewees to this question.

- As mezzanine loans have decent risk-adjusted returns, mezzanine loans have been increasingly chosen for debt investments by Korean institutions. On the other hand, demand for senior loans have been decreasing because low returns on senior debt investments hardly meet the expected returns of Korean institutions.[AM1]

- One of the significant reasons for the shift from senior debt to mezzanine debt is the funding cost of Korean institutions, especially of mutual aid associations. Senior debt investment with returns averaging around 4% can barely cover their funding cost. Moreover, in some cases, mezzanine debt investments could gain higher risk-adjusted returns than private equity investments.[AM3]

Geographical Preference

All interviewees have executed debt investments in the US and UK. They have favored the markets in the US and UK because the markets have better environment for real estate investing such as transparency, market size and established legal system. While only AM2 has debt investment experience in the continental Europe, all the interviewees have been looking into the market, specifically Germany and France, for debt investment opportunities. However, they pointed out that lack of deals in the continental Europe markets makes deal sourcing more difficult[AM3] and that lower LTV levels (compared to the US and UK markets) in the continental Europe market restrict chance to provide mezzanine loans that may meet its target returns[AM1].

Target Returns and Investment Period

From the interviews, target returns for mezzanine debt investments were observed within the range from mid-5% to 9%, with a market average of 7%, in terms of net cash-on-cash yield[53]. For senior loans, target returns were estimated at around 4%. As for investment period, most investments have five to ten years of lock-in investment periods. One of the interviewees mentioned that Korean institutional investors basically want at least three years for their debt investments.

Key Factors When Considering Overseas Real Estate Debt Investments

Following is an aggregate list of key factors that were mentioned by the interviewees:

- Asset Quality of Underlying Properties [AM1, AM2, AM3]
- Risk/Return Profile [AM2, AM3]
- Sponsorship (Sponsor's creditability and track record) [AM1, AM2]
- Ability of Local Partners (Investment Advisors/Managers) [AM3]
- Property Type [AM3]

All interviewees mentioned that they take into account debt service coverage ratios and loan-to-value ratios as main indicators to assess the asset quality of underlying properties, showing that they focus on the property's ability to generate sufficient cash flows and collateral value. Along with the ratios, the location of the property was also observed as a main contributor to the asset quality of the property. Also it was found that the level of risk-adjusted returns, the sponsor's

[53] Net Cash-on-cash Yield = Net Annual Dollar Income / Total Dollar Invested

creditability and track record, and the ability of local partners are significantly considered for their debt investments. Additionally, through the interviews, the author was able to learn something about Korean institutions' preference of property type. They have currently favored property types in the following order: office, multifamily, hotel, and retail.

Reasons for Overseas Real Estate Debt Investments

All interviewees agreed that the hike in prices of core assets for the key reason why Korean institutions have been seeking overseas real estate debt investments. As the prices of core assets (e.g. prime offices located in gateway cities) have been dramatically increasing, reaching or exceeding the pre-GFC levels, Korean institutional investors have turned their eyes to other investment opportunities (i.e. debt investments) with which they can meet their expected returns. Below are some comments from the interviewees about this question:

- Most Korean institutions are afraid of the current trend of compressing cap rates in the major global real estate markets. This makes them avoid private real estate equity investments and prefer debt investments, especially mezzanine loans, which allow them to pursue favorable risk-adjusted returns. [AM1]

- Stable income through coupon payment has drawn Korean institutional investors to overseas real estate debt investments, enabling them to build cash-flowing real estate portfolio. [AM2]

- With the issue of cap compression across the major real estate markets, Korean institutions have preferred debt investments as they consider debt products safe and stable compared to equity investments. Additionally, they have been satisfied with the returns on mezzanine debt investments and are expected to increasingly demand for mezzanine debt investment opportunities that come with decent risk-adjusted returns. [AM3]

Current Trends/Issues and Outlook Regarding Foreign Real Estate Debt Investment

Although it was discussed through the previous questions, all interviewees stressed again that the demand for foreign real estate debt investments, mainly mezzanine loans, from Korean institutional investors has been increasing rapidly for the recent years. Besides this main trend, the interviewees pointed out other trends and issues as below:

- Debt investments through commingled funds become more popular among Korean institutions as they have been more comfortable with commingled funds and realized that the investment method increases the chance of securing good deals in a timely manner. Also, it has been witnessed that debt investments in Europe have been gradually increasing. [AM2]

- There is a timing issue regarding decision making process among Korean institutional investors. Mainly due to their hierarchical organizational structure, Korean institutions usually take up two to three months to make an investment decision, often leading to making themselves (or their fiduciaries) less competitive in the markets. [AM1]

- Lending markets especially for senior loans and B-notes become more and more competitive as the number of capital providers has been increasing. This makes investors hard to get favorable debt investment opportunities. The trend is spilling over to the mezzanine lending markets as well. [AM3]

All interviewees stated that Korean institutional investors' interest in foreign real estate debt investments is expected to grow further in the near future. The following are some responses regarding the outlook by the interviewees:

- At least for the next two years, Korean institutions' interest in foreign real estate debt investments, especially in the US real estate market, would be lasting. A sizable amount of CMBS loans will be maturing in the coming years, but the US domestic capital is not expected to refinance the all retiring loans. This would open up debt investment opportunities, specifically mezzanine loans, for Korean institutions. [AM1]

- Korean institutions would continue to prefer foreign real estate debt investments as long as the risk-adjusted returns are favorable. It could depend on the extent of competition in the debt markets. [AM2]

- As Korean institutions has become more familiar with foreign real estate debt investments while avoiding real estate private equity investments, they would expand their debt investments in the global markets over the next three to four years, until the real estate market cycle turns to the downside. [AM3]

5.6 Chapter Conclusion

The research findings indicate that there has been an obvious trend of increasing demand for debt investments, especially for mezzanine debt, in foreign real estate markets from Korean institutional investors. More than 55% of the interviewee firms' real estate portfolios, approximately $1.9 billion, has been placed in foreign real estate debt investments. The capital allocations to foreign real estate debt investments have been drastically increased and also expected to grow further in the coming years. All interviewees agreed that the main reason for this uptrend is the compression of cap rates of core assets in global real estate markets. As the prices of core assets, which they had favored for equity investments, have been reaching or even exceeding the pre-GFC levels during the recent years, Korean institutions had to find out other places to park their abundant capital. This led to increase in debt investments in foreign real estate markets.

The types of Korean institutional investors, who have been investing in foreign real estate debt through the interviewing firms, are pension funds, mutual aid associations and insurance companies. It is observed that they have preferred mezzanine loans that could satisfy them with higher risk-adjusted returns averaging 7%, while avoiding senior loans that could not meet their expected returns. For the investment strategy, Korean institutions have mostly taken core strategy for their foreign real estate debt investments due to familiarity with the strategy. If investing through a commingled fund, however, they are relatively open to value-add and even opportunistic strategies. Geographically, Korean institutions have been executing debt investments in the US and UK market mostly, while some investing in the continental Europe markets where others have been looking into for future investment opportunities. Target returns are observed in the range of mid-5% to 9%, averaging 7%, for mezzanine loans and 4% for senior loans. The typical investment period is five years to ten years with the required minimum period of three years.

It is found that the asset quality of underlying properties is the most significant factors when the interviewing firms consider a debt investment. Investigating indicators such as DSCR and LTV, they assess the ability of the subject property to generate cash flows and collateral value. The risk/return profile, the sponsorship, the ability of local partners, and the property type are also found to be factors considered for a debt investment.

As for the current trend/issue regarding debt investments, some Korean institutions are increasingly investing through debt-focused commingled funds which enable them to secure good opportunities in a timely manner. An interviewee pointed out that the issue of time-consuming decision making process of Korean institutions should be improved to increase the chance to secure favorable deals. The environment of the lending market getting more competitive was also stated as a critical issue.

All interviewees expected the demand for mezzanine debt investments from Korean institutions to keep increasing in the near future. Key reasons for this mentioned by the interviewees are the investment opportunities resulting from the funding gap in the US CMBS market and the favorable risk-adjusted returns expected to be available in the coming years.

Chapter 6 Final Conclusions

Focusing on mezzanine debt investments, we have reviewed and investigated the US real estate mezzanine financing market and Korean institutional investors in the previous chapters. Now, we need to look back to reaffirm what we found and to point out questions we might have during the journey of this thesis.

6.1 The US Real Estate Mezzanine Financing Market and Investment Opportunity

The mezzanine debt market has been expanding mainly because the credit crunch and regulatory actions after the GFC opened investment opportunity for the new groups of lenders to provide mezzanine capital (i.e. B-notes, mezzanine loans, and preferred equity) filling the funding gap between senior debt and the borrower's equity. The sizable amount of the CMBS loans, which were originated before the GFC and started maturing in the recent years, has also stimulated the demand for mezzanine financing to rapidly increase. Based on the interview with the US investment manager, although the US real estate debt market is resurging, the current increasing originations are insufficient to cover the funding gap, still presenting significant opportunity especially for mezzanine investments.

6.2 Korean Institutional Investors and Debt Investments

Meanwhile, with a rapidly growing amount of AUM, the major Korean institutional investor, including pension funds, mutual aid associations, life insurers, and a sovereign wealth fund, have increased the asset allocation to foreign real estate in order to diversify their portfolios and to find favorable investments outside of the relatively small and low-yielding domestic market. After facing the cap-rate-compression issue in the major global markets recently, they have increasingly placed capital into debt investments in lieu of equity investments, and favored mezzanine investments mostly in the US and UK markets. According to the interviews with the Korean asset managers, Korean institutions have avoided equity interest investments and instead preferred mezzanine debt investments because, in general, mezzanine investments are safer than equity investments and command higher risk-adjusted returns.

6.3 Why Debt Investments?

It is seemingly understandable that the recent high prices of core properties approaching the pre-GFC level caused Korean institutions to balk at real estate equity investments, resulting in expanding debt investments instead. Because, rising prices, boding ill for no more room for asset value appreciation, would reduce the expected returns to equity investments. The investment preference shift from equity to debt can be more explained by the following reasons:

- **Safer positions in the capital stack**: Debt investors can feel safer as they have the capital cushion generated from the borrower's equity. As being in more secure positions within the capital stack, debt investments would reduce the loss in the most extreme conditions.
- **Higher income component**: Compared to equity investment, debt has a higher income component during its life including origination fees and coupon payments that come in right away after closing. While equity investments in non-core properties usually entail additional capital injections in the early stages, leading to negative returns for a while, debt investments allow positive returns from the time of origination thanks to the higher

income component.

- **Less need of local expertise and managerial skills**: As a passive investment, debt investment would not require the investors have local expertise and property and asset managerial skills to the extent of when investing in equity. Especially, foreign investors including Korean institutions would favor debt investments due to this reason. Moreover, the recent trend that Korean institutions are moving toward to commingled funds and fund of funds for their foreign real estate debt investments shows that they are going more passive, at least, for their debt investing in foreign real estate markets.

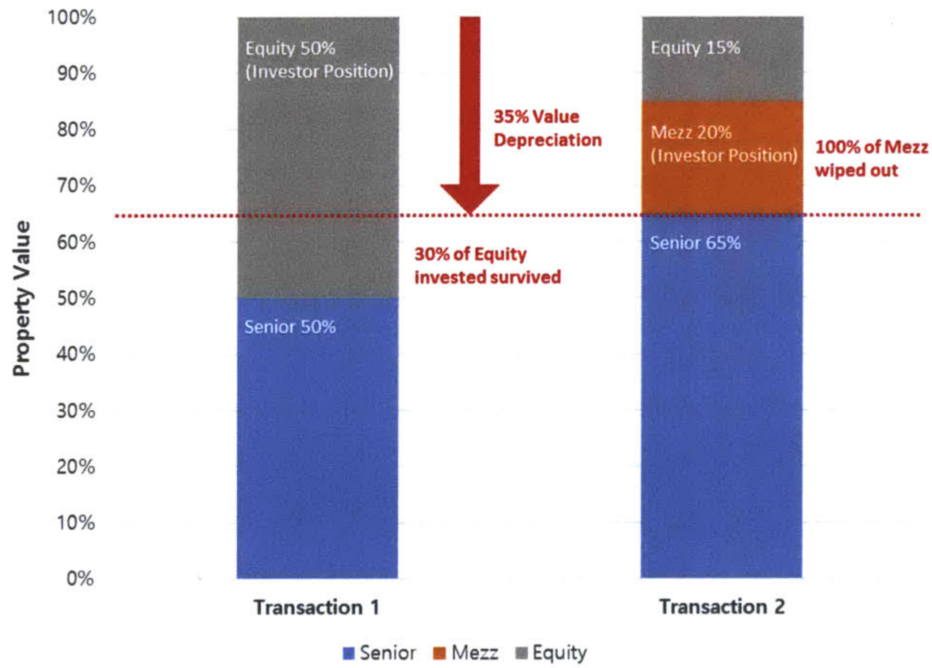
6.4 Why Mezzanine Investments?

While the reasons described above could justify the recent trend toward debt, someone might raise the following question regarding mezzanine debt investment: 'the spike in prices followed by the fear of asset value depreciation can also increase the probability of default on debt, particularly on mezzanine pieces and this can make mezzanine investment riskier than unlevered equity investment. Thus, could they have opted for carrying on equity investments without or with much lower financial leverage on them?'

Speaking of an answer from the industry, even if unlevered equity investment is less risky than mezzanine investment in the most extreme cases, in reality, an institutional real estate equity investment should be leveraged in order to achieve target returns considering the cost of funding of institutional investors. Additionally, the market norm LTV ratio on a typical core transaction is around 50% or less.

This reasoning can be followed by another question: should a less-levered (e.g. 50% LTV) equity investment be less risky than a mezzanine debt investment? Imagining two transactions as shown in the Exhibit 6-1, the Investor 1 placed equity capital, 50% of the property value and the Investor 2 placed mezzanine capital at 85% LTV on top of senior loan at 65% LTV. In the event of 35% drop in the property value, while the Investor 1 still survives with 30% of the capital invested, the Investor 2's capital placed in the mezzanine loan is wiped out.

Exhibit 6-1 Comparison of Equity Investment (50% LTV) and Mezzanine Investment (85% LTV)



Obviously, the mezzanine investment looks much riskier than the equity investment in this case. As this value depreciation would generally trigger the event of default under the senior loan, the Investor 1 would be required to pay back part of the loan principal to make the as-is LTV level acceptable. Then, what would happen to the Investor 2? Would it just give up its capital invested in the mezzanine loan? As it is not highly likely that the property value drops suddenly in a single day, at the earlier time before the 35% fall in the property value, the Investor 2 would be notified of any material default on the senior loan by the senior lender and have the right to cure the default before the senior lender takes legal actions, based on 'the clause of right to receive default notices and cure defaults' stated in the intercreditor agreement[54]. This enables mezzanine lenders to prevent or minimize such catastrophic loss. According to the clause, mezzanine lenders can be prepared with remedies to cure the default on the senior loan and can opt for taking control of the property if they have managerial skills and expertise to increase its value. In short, even in such extreme case, mezzanine lenders would not just see their capital wiped out but proactively prevent their loss through executing their right to solve the distressed situation. Additionally, perhaps more importantly, this alerts Korean institutions to the significance of choosing a local partner (i.e. US investment managers/advisors) who has ability and skills to deal with loans in certain special situations for mezzanine investments.

Consequentially, an unlevered or less-levered equity investment could not be a good alternative in the current investment environment because 1) equity investments should be levered to meet the target returns and 2) even in an extreme case, less-levered equity investments could not be superior to mezzanine investments in terms of preventing principal loss.

As found through the interviews with Korean asset managers, 'higher risk-adjusted returns' have drawn Korean institutions to mezzanine debt investments. But, it was not answered how the asset managers or investors quantify the risk-adjustment. Geltner et al (2013)[55] assert that in order to be a realistic yield reflecting default risk, an expected return to a commercial mortgage loan should

[54] The intercreditor agreement governs the relationship between the senior lender and the mezzanine lender, specifying the parties' respective rights and liabilities including 'the clause of right to receive default notices and cure defaults'. The agreement is considered the most significant document in the mezzanine loan structure as it contains clauses governing the rights and liabilities in the event of default under the senior or mezzanine loan.

[55] 'Commercial Real Estate Analysis and Investments', Geltner et al, 3e, page 430-434.

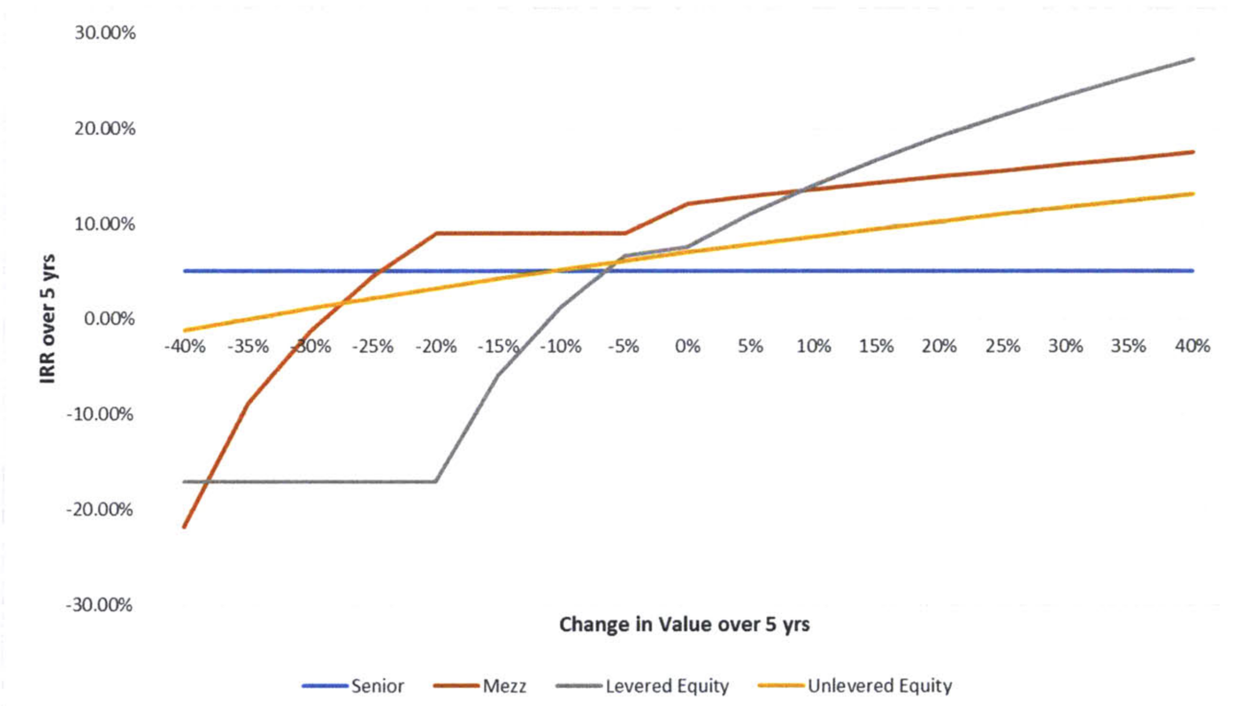
be calculated by deducting the effect of credit losses from the stated/contractual yield. Based on the discussion with a senior level mezzanine loan producer belonging to the US-based investment manager, the interviewee company, such risk-adjustment analysis for individual loans is not performed by investment managers. Instead, at the portfolio level, according to the loan producer, most institutional investors perform quality ratings that reflect expected credit losses. Hence, for Korean institutions, especially for smaller institutions who have just started their overseas real estate investments, it is recommended to have this kind of established risk management system to manage the risk of their foreign real estate mezzanine investments. This would help make it clear that their mezzanine investments have the realistic risk-adjusted returns reflecting the credit loss factors.

Regarding returns to mezzanine investments, a doubtful point remains: does it really command decent, higher returns compared to unlevered and levered equity investments? Let's take a look at the simplified example. The Exhibit 6-2 illustrates the going-in IRR from different parts (i.e. levered equity, mezzanine debt, senior debt and unlevered equity) of the capital stack under different property value change (-40% to + 40%) scenarios over an investment period of five years. The property value change is assumed to impact the terminal value at the end of year 5. The mezzanine loan has 20% participation interest, which allows the mezzanine lender to get 20% of the capital growth in addition to the 9% coupon payments.

It is notable that the mezzanine debt commands higher returns than the levered equity in the range from -39% to +9% of the property value change. This shows that the mezzanine has the high level of capital protection from the equity cushion and the 20% participation interest enable the mezzanine to enhance its return under the value growth scenarios. Also, the mezzanine has a positive return even under the scenario of -29% fall in value, proving that the mezzanine has the higher income component. When compared to the unlevered equity, unless the property value falls below -27.5%, the return to mezzanine debt is higher. This can also explain the reason why the unlevered equity could not be a decent alternative for Korean institutions instead of moving toward debt (see Appendix 2 for details).

As a result, mezzanine investments could materialize higher returns than unlevered and levered equity investments across the quite wide value change spectrum, mainly thanks to the equity cushion, the participation interest and the higher income component.

Exhibit 6-2 Changes in Going-in IRR under Scenarios of Property Value Growth/Fall



Basic Assumptions

	Value	Yield/Coupon	Income
Property	100	7.00%	7.00
Equity	20	11.00%	2.20
Mezz Debt	20	9.00%	1.80
Senior Debt	60	5.00%	3.00
Total	100		7.00

In addition to the high return factor, the portfolio diversification can be a good reason for Korean institutions' mezzanine debt investments. As the mezzanine loan accounts for small part of the property value (i.e. 20% of thickness in the capital stack as discussed in Chapter 2), they can place their capital earmarked for mezzanine investments to the greater absolute number of individual investments. This could diversify their real estate portfolios not only geographically but also across the property types.

6.5 Why US Market?

The ultimate purpose of this thesis is to define mezzanine investment opportunity in the US Real estate market for Korean institutional investors. Having discussed about the US mezzanine market and Korean institutions, we need to reaffirm the reasons why Korean institutions should target the US real estate mezzanine market.

First of all, the US mezzanine market is the most experienced market as the real estate mezzanine financing has emerged and developed in the US market. This indicates not only that the market has the vast experiences in real estate mezzanine financing but also that the market has a number of considerably experienced players who have been improving the relevant products through trial and error for a long time.

The US mezzanine market is the biggest market in the world. As shown in the Exhibit 4-8, the US market includes 11 markets of top 30 global markets by sales volume. For investments, the market size matters because the bigger the market is, the more investment opportunities they can have. Moreover, as the Korean asset managers, the interviewees, mentioned, compared to others, the US market has the most transparent transaction process along with its established legal system, which enable them to inject their capital into the market based on trust.

Lastly, Korean institutions have been investing in the US real estate market for a longer time than in any other markets in the world. This also means that they have built strong relationships with US-based partners through various transactions. For mezzanine debt investing, especially in case of special events such as default, an established relationship with the investment advisor/manager is significant to cure such events quickly and accurately with closer cooperation. Otherwise, important decisions would not be made in timely manner, deepening the damage on their investments.

6.6 Compressing Price and Enlarging Default Risk of Mezzanine Debt

It would be worth pointing out other concerns regarding Korean institutions' mezzanine investments in the US market. Korean institutions should be aware of the compressing price and the enlarging default risk of mezzanine debt.

Along with the increasing capital inflow to the market, the number of mezzanine lenders has been dramatically growing since the funding gap stimulated the mezzanine market to expand, leading to the more competitive market environment for capital providers. This has made the premium on mezzanine debt diminish, compressing the coupon rate on mezzanine loans. Thus, it becomes more difficult to find favorable mezzanine investment opportunities that could generate satisfactory yields for institutional investors. Even though, according to the interviews with Korean asset managers, so far Korean institutions have been satisfied with the average 7% of net yield to their mezzanine investments, if the downtrend is expected to continue, they might have to reconsider mezzanine investments because the compressing price of mezzanine debt does not necessarily mean that their funding costs also decrease.

As we have been noticed, the US real estate market seems to be approaching the peak of the cycle again. Pricing level has reached the pre-GFC level and even already exceeded it in certain sectors[56], and the CMBS lending activities are showing the circumstances reminding of the pre-GFC market[57]. This situation we are facing might alert us that the probability of default on mezzanine debt is increasing with the fear of value depreciation in the near future. Furthermore, the market has recently seen that the level of LTV on mezzanine debt is increasing because borrowers are leading the market and senior lenders are getting more aggressive with higher LTV, pushing up the LTV on mezzanine debt. The CMBS market has currently been showing the flattening credit curve, narrowing differential between the spread of AAA and BBB-rated bonds[58]. Inexpensive capital due to this flattening credit curve encourages borrowers to put more leverage on their assets especially with mezzanine debt. To make a deal in the borrower-led market, mezzanine lenders might have to accept most of what the borrower wants including the relatively higher level of LTV. The senior lenders' return to the market with higher LTV and the borrowers' needs would increase the LTV level of mezzanine debt further. Thus, Korean institutions should realize that, at the time we are expecting the market peak, this trend could heighten the risk of default on mezzanine debt.

[56] Moody's Investors Service, 'Moody's/RCA CPPI: Commercial Property Prices, Led by Apartment and CBD Office in Major Markets, Top Pre-crisis Peak', November 2014.

[57] Moody's Investors Service, 'US CMBS Q3 Review: Conduit Loan Credit Quality Slippage is Déjà Vu All Over Again', October 2014

[58] "The last time credit curve saw substantial flattening was in 2006-2007, when BBB-rated CMBS were in the range of swaps plus 85, and AAA-rated, super-senior bonds were trading at swaps plus 60. While the differential isn't as narrow right now – BBB bonds are at around swaps plus 272, while AAA bonds are at 52 – it's substantially flatter than when BBB-rated bonds were trading at swaps plus 800-900 at the height of the credit crisis." Rowan, Real Estate Finance & Investments, August 11, 2014. p.17.

6.7 Final Comments

As the GFC allowed a chance to take advantage of market illiquidity, mezzanine lenders have been providing capital that fills the funding gap between senior mortgage and the borrower's equity in the US real estate market. Mezzanine debt products have been evolving according to the changes in the market environment and the investment opportunity in mezzanine financing is expected to continue to exist until the funding gap disappear (i.e. either/both the level of senior mortgage LTV climbs up or/and the level of the borrower's equity increases, to drive out the mezzanine portion in the capital stack).

As many global investors including Korean institutions are turning away from real estate equity investments due to asset prices near the pre-GFC level, the US real estate mezzanine market has drawn capital from them with higher returns that could meet the target returns of the investors. Korean institutions have been satisfied with their mezzanine investments and plan to expand their capital allocation to mezzanine debt as they might have been getting more comfortable with the investments that are relatively safer, passive and higher-income-generating. Considering the market's being most advanced, experienced, established and biggest, the US real estate mezzanine financing market would continue to give investment opportunity to Korean institutions as they have been doing so for the recent years.

As the market is rapidly changing and many market indicators are signaling the market peak is coming back soon, however, Korean institutions should keep their eyes on the changes of the market for their mezzanine investments. Note that the price of mezzanine debt is compressing and the default risk of mezzanine debt seems to be gradually increasing.

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Appendix 1 Profiles of Private Real Estate Funds (Established and Registered in Korean from 1Q 2013 to 2Q 2014)

Name of Fund	Set-up Date	Fund Type*	Invest -ment Type	Property Type	Invest-ment Region	Subject Property	Initial Commitment (KRW Mil)	Investment/ Asset Manager	Key Investors
Hana Daol Land Chip Melbourne Private Real Estate Investment Trust 49	Feb-13	RE	Equity	Office	Australia	City West Police Complex	16,833	Hana Asset Management	Korea Post, POBA
Igis KORIF Privately Placed Real Estate Investment Trust 17-1~4	Mar-13	RE	Equity	Office	UK	Ropemaker Place	256,116	Igis Asset Management	Hanwha Life Ins.
Miare Asset Maps Frontier US Private Real Estate Trust 1	Mar-13	SA	Equity	Office	US	225 West Wacker	123,958	Mirae Asset Global Investments	POBA, NH Life Ins.
Samsung SRA Private Real Estate Trust 2	Apr-13	RE	Equity	Office	UK	30 Crown Place	128,795	Samsung SRA Asset Management	Samsung Life Ins., Samsung F&M Ins., Kyobo Life Ins., Shinhan Life Ins., Tongyang Life Ins.
IBK US Private Real Estate Investment Trust	May-13	FOF	REITs		US		5,000	IBK Asset Management	
Hyundai YouFirst Private Real Estate Investment Trust 13	May-13	RE	Debt	Hotel	UK	Holiday Inn (57), Crowne Plaza Hotel (4)	157,509	Hyundai Asset Management	KTCU, Dongbu Fire Ins.
Hanwha Europe Core Strategy Private Real Estate Investment Trust 1	Jun-13	RE	Equity	Office	Germany	Gallileo Building	220,900	Hanwha Asset Management	KTP, Hyundai F&M Ins., LIG Ins.
Mirae Asset Maps Frontier Australia Priavate Real Estate Trust 1, 1-1, 1-2	Jul-13	RE	Equity	Hotel	Australia	Four Seasons Hotel	369,273	Mirae Asset Global Investments	Mirae Asset Life Ins.
FG RED Private Real Estate Investment Trust 1	Jul-13	RE	Debt		US	MBS	11,000	FG Asset Management	
Hana Daol Land Chip Washington Private Real Estate Investment Trust 55	Jul-13	RE	Equity	Resi/ retail	US	Washington Harbor Building	215,000	Hana Asset Management	Korea Post, NFFC, Hyundai Sec., Dongbu Ins.
CBRE Global Private Real Estate Investment Trust 1	Aug-13	RE	Equity	Office	US	Accenture Building	185,922	CBRE Global Investors	Korea Post, Hyundai F&M Ins.
Hanwha Debt Strategy Private Real Estate Investment Trust 2 (FOF)	Aug-13	FOF	Debt		US/ Europe		25,659	Hanwha Asset Management	
Hyundai YouFirst Private Real Estate Investment Trust 14	Aug-13	RE	Debt	Office	UK	Design Centre Chelsea Harbour	121,080	Hyundai Asset Management	KFCC, NFFC, Dongbu Ins.
Hyundai YouFirst Private Real Estate Investment Trust 15	Sep-13	RE	Equity	Office	UK	Waterside House	154,697	Hyundai Asset Management	KFCC, NFFC, Dongbu Ins.
Hyundai YouFirst Private Real Estate Investment Trust 16	Sep-13	RE	Debt	Office	US	Seagram Building	81,800	Hyundai Asset Management	KTCU, SEMA
Hana Land Chip Private Real Estate Invesment Trust 56 (FOF)	Oct-13	FOF	Equity	Industrial	W. Europe	Data Centers	5,900	Hana Asset Management	
FG USRED Private Real Estate Trust 2	Nov-13	RE	Debt	Office	US	101 Avenue of the Americas	83,160	FG Asset Management	KTCU
FG USRED Private Real Estate Investment Trust 3	Dec-13	RE	Debt	Office	US	Cupertino Gateway (Tenant: Apple)	20,041	FG Asset Management	
FG Euro RED Private Real Estate Investment Trust 1	Dec-13	RE	Debt	Office	UK	IQ Winnersh Busines Park	74,823	FG Asset Management	

Woori Milestone US Private Real Estate Investment Trust 2 (FOF)	Dec-13	FOF	REITs		US		63,700	Woori Asset Management	
Igis Overseas Indirect RES Private Real Estate Investment Trust 20-2	Dec-13	FOF	Equity				5,800	Igis Asset Management	
Hanwha Debt Strategy Private Real Estate Investment Trust 3	Dec-13	RE	Debt	Office	US	Office Property in Silicon Valley	72,130	Hanwha Asset Management	Hanwha Life Ins.
Hanwha Value Add Strategy Private Real Estate Investment Trust 4 (FOF)	Jan-14	FOF	Equity				12,600	Hanwha Asset Management	
Mirae Asset Maps Frontier US Private Real Estate Investment Trust 2	Feb-14	RE	Equity	Resi	US	The Westbridge Condominiums	100,000	Mirae Asset Global Investments	KTP, Hyundai F&M Ins., NH Life Ins., Tongyang Life Ins.
Samsung SRA Private Real Estate Investment Trust 6 (FOF)	Mar-14	FOF	Equity		US	PRISA LP(US Core Open End Fund)	22,450	Samsung SRA Asset Management	
Hanwha Debt Strategy Private Real Estate Investment Trust 4	Mar-14	RE	Debt	Office	US		24,491	Hanwha Asset Management	
FG USRED Private Real Estate Investment Trust 4	Apr-14	RE	Equity	Office	US	Bechtel HQ Building	2,100	FG Asset Management	
Hanwha Europe Opportunistic Strategy Private Real Estate Investment Trust 2 (FOF)	Apr-14	FOF	Equity		Europe		24,400	Hanwha Asset Management	
Hyundai YouFirst Private Real Estate Investment Trust 17	Apr-14	RE	Debt	Office	US	Seagram Bldg, 650 Madison Ave NY, Post Oak Bldg Houston	202,524	Hyundai Asset Management	KTCU
Igis Overseas Indirect RES Private Real Estate Investment Trust 20-3 (FOF)	Apr-14	FOF	REITs				1,800	Igis Asset Management	
Dongbu Private Real Estate Investment Trust 12	May-14	RE	Equity		US		34,900	Dongbu Asset Management	
LaSalle Private Real Estate Investment Trust 1	May-14	RE	Debt	Office	France	Parisian office complex Coeur Défense	41,900	LaSalle Investment Management	SEMA
Samsung SRA Private Real Estate Investment Trust 8	Jun-14	RE	Debt	Office	US	Portals III Office Bldg	102,000	Samsung SRA Asset Management	
Samsung SRA Private Real Estate Investment Trust 9, 9-1	Jun-14	RE	Equity	Office	Germany	Thales HQ Bldg	111,100	Samsung SRA Asset Management	
Simone Europe Real Estate Private FOF Investment 1	Jun-14	FOF	Equity				13,000	Simone Asset Management	
Hana Land Chip Private Real Estate Investment Trust 58 (FOF)	Jun-14	FOF	Equity				9,800	Hana Asset Management	

* Fund Type: Real Estate Fund (RE), Fund of Funds (FOF)

Appendix 2 Changes in Going-in IRR under Scenarios of Property Value Growth/Fall (Detailed)

Δ Value	Senior Debt	Mezz Debt	Levered Equity	Unlevered Equity
-40.0%	5.00%	-21.83%	-17.11%	-1.19%
-39.5%	5.00%	-20.01%	-17.11%	-1.07%
-39.0%	5.00%	-18.38%	-17.11%	-0.95%
-38.5%	5.00%	-16.89%	-17.11%	-0.83%
-38.0%	5.00%	-15.52%	-17.11%	-0.71%
-37.5%	5.00%	-14.24%	-17.11%	-0.59%
-37.0%	5.00%	-13.05%	-17.11%	-0.47%
-36.5%	5.00%	-11.94%	-17.11%	-0.35%
-36.0%	5.00%	-10.88%	-17.11%	-0.23%
-35.5%	5.00%	-9.88%	-17.11%	-0.12%
-35.0%	5.00%	-8.93%	-17.11%	0.00%
-34.5%	5.00%	-8.02%	-17.11%	0.12%
-34.0%	5.00%	-7.15%	-17.11%	0.23%
-33.5%	5.00%	-6.32%	-17.11%	0.35%
-33.0%	5.00%	-5.52%	-17.11%	0.46%
-32.5%	5.00%	-4.74%	-17.11%	0.57%
-32.0%	5.00%	-4.00%	-17.11%	0.69%
-31.5%	5.00%	-3.28%	-17.11%	0.80%
-31.0%	5.00%	-2.58%	-17.11%	0.91%
-30.5%	5.00%	-1.91%	-17.11%	1.02%
-30.0%	5.00%	-1.25%	-17.11%	1.13%
-29.5%	5.00%	-0.62%	-17.11%	1.25%
-29.0%	5.00%	0.00%	-17.11%	1.36%
-28.5%	5.00%	0.60%	-17.11%	1.46%
-28.0%	5.00%	1.19%	-17.11%	1.57%
-27.5%	5.00%	1.76%	-17.11%	1.68%
-27.0%	5.00%	2.32%	-17.11%	1.79%
-26.5%	5.00%	2.86%	-17.11%	1.90%
-26.0%	5.00%	3.39%	-17.11%	2.00%
-25.5%	5.00%	3.91%	-17.11%	2.11%
-25.0%	5.00%	4.42%	-17.11%	2.22%
-24.5%	5.00%	4.92%	-17.11%	2.32%
-24.0%	5.00%	5.41%	-17.11%	2.43%
-23.5%	5.00%	5.89%	-17.11%	2.53%
-23.0%	5.00%	6.36%	-17.11%	2.64%
-22.5%	5.00%	6.82%	-17.11%	2.74%
-22.0%	5.00%	7.27%	-17.11%	2.84%
-21.5%	5.00%	7.71%	-17.11%	2.95%
-21.0%	5.00%	8.15%	-17.11%	3.05%
-20.5%	5.00%	8.58%	-17.11%	3.15%
-20.0%	5.00%	9.00%	-17.11%	3.25%
-19.5%	5.00%	9.00%	-15.61%	3.35%
-19.0%	5.00%	9.00%	-14.23%	3.45%
-18.5%	5.00%	9.00%	-12.95%	3.55%
-18.0%	5.00%	9.00%	-11.76%	3.65%
-17.5%	5.00%	9.00%	-10.64%	3.75%
-17.0%	5.00%	9.00%	-9.59%	3.85%
-16.5%	5.00%	9.00%	-8.59%	3.95%
-16.0%	5.00%	9.00%	-7.64%	4.05%
-15.5%	5.00%	9.00%	-6.73%	4.15%
-15.0%	5.00%	9.00%	-5.87%	4.24%
-14.5%	5.00%	9.00%	-5.04%	4.34%
-14.0%	5.00%	9.00%	-4.24%	4.44%
-13.5%	5.00%	9.00%	-3.47%	4.53%
-13.0%	5.00%	9.00%	-2.73%	4.63%
-12.5%	5.00%	9.00%	-2.01%	4.73%
-12.0%	5.00%	9.00%	-1.32%	4.82%
-11.5%	5.00%	9.00%	-0.65%	4.92%
-11.0%	5.00%	9.00%	0.00%	5.01%
-10.5%	5.00%	9.00%	0.63%	5.10%
-10.0%	5.00%	9.00%	1.25%	5.20%
-9.5%	5.00%	9.00%	1.84%	5.29%
-9.0%	5.00%	9.00%	2.43%	5.38%
-8.5%	5.00%	9.00%	2.99%	5.48%
-8.0%	5.00%	9.00%	3.55%	5.57%
-7.5%	5.00%	9.00%	4.09%	5.66%
-7.0%	5.00%	9.00%	4.62%	5.75%
-6.5%	5.00%	9.00%	5.13%	5.84%
-6.0%	5.00%	9.00%	5.64%	5.93%
-5.5%	5.00%	9.00%	6.13%	6.02%
-5.0%	5.00%	9.00%	6.62%	6.12%
-4.5%	5.00%	9.00%	7.09%	6.20%
-4.0%	5.00%	9.00%	7.56%	6.29%
-3.5%	5.00%	9.00%	8.02%	6.38%
-3.0%	5.00%	9.00%	8.47%	6.47%
-2.5%	5.00%	9.00%	8.91%	6.56%
-2.0%	5.00%	9.00%	9.34%	6.65%
-1.5%	5.00%	9.00%	9.77%	6.74%
-1.0%	5.00%	9.00%	10.18%	6.83%
-0.5%	5.00%	9.00%	10.60%	6.91%
0.0%	5.00%	12.14%	7.56%	7.00%

0.5%	5.00%	12.21%	7.93%	7.09%
1.0%	5.00%	12.29%	8.29%	7.17%
1.5%	5.00%	12.36%	8.64%	7.26%
2.0%	5.00%	12.43%	8.99%	7.35%
2.5%	5.00%	12.51%	9.34%	7.43%
3.0%	5.00%	12.58%	9.68%	7.52%
3.5%	5.00%	12.65%	10.02%	7.60%
4.0%	5.00%	12.72%	10.35%	7.69%
4.5%	5.00%	12.80%	10.68%	7.77%
5.0%	5.00%	12.87%	11.00%	7.85%
5.5%	5.00%	12.94%	11.32%	7.94%
6.0%	5.00%	13.01%	11.63%	8.02%
6.5%	5.00%	13.08%	11.95%	8.11%
7.0%	5.00%	13.15%	12.25%	8.19%
7.5%	5.00%	13.22%	12.56%	8.27%
8.0%	5.00%	13.30%	12.86%	8.35%
8.5%	5.00%	13.37%	13.15%	8.44%
9.0%	5.00%	13.44%	13.45%	8.52%
9.5%	5.00%	13.51%	13.74%	8.60%
10.0%	5.00%	13.58%	14.02%	8.68%
10.5%	5.00%	13.65%	14.31%	8.76%
11.0%	5.00%	13.72%	14.59%	8.84%
11.5%	5.00%	13.79%	14.87%	8.92%
12.0%	5.00%	13.86%	15.14%	9.00%
12.5%	5.00%	13.92%	15.41%	9.09%
13.0%	5.00%	13.99%	15.68%	9.17%
13.5%	5.00%	14.06%	15.95%	9.24%
14.0%	5.00%	14.13%	16.21%	9.32%
14.5%	5.00%	14.20%	16.47%	9.40%
15.0%	5.00%	14.27%	16.73%	9.48%
15.5%	5.00%	14.34%	16.99%	9.56%
16.0%	5.00%	14.40%	17.24%	9.64%
16.5%	5.00%	14.47%	17.49%	9.72%
17.0%	5.00%	14.54%	17.74%	9.80%
17.5%	5.00%	14.61%	17.99%	9.87%
18.0%	5.00%	14.67%	18.23%	9.95%
18.5%	5.00%	14.74%	18.48%	10.03%
19.0%	5.00%	14.81%	18.72%	10.11%
19.5%	5.00%	14.87%	18.96%	10.18%
20.0%	5.00%	14.94%	19.19%	10.26%
20.5%	5.00%	15.01%	19.43%	10.34%
21.0%	5.00%	15.07%	19.66%	10.41%
21.5%	5.00%	15.14%	19.89%	10.49%
22.0%	5.00%	15.20%	20.12%	10.56%
22.5%	5.00%	15.27%	20.34%	10.64%
23.0%	5.00%	15.34%	20.57%	10.71%
23.5%	5.00%	15.40%	20.79%	10.79%
24.0%	5.00%	15.47%	21.01%	10.86%
24.5%	5.00%	15.53%	21.23%	10.94%
25.0%	5.00%	15.60%	21.45%	11.01%
25.5%	5.00%	15.66%	21.66%	11.09%
26.0%	5.00%	15.73%	21.88%	11.16%
26.5%	5.00%	15.79%	22.09%	11.24%
27.0%	5.00%	15.85%	22.30%	11.31%
27.5%	5.00%	15.92%	22.51%	11.38%
28.0%	5.00%	15.98%	22.72%	11.46%
28.5%	5.00%	16.05%	22.93%	11.53%
29.0%	5.00%	16.11%	23.13%	11.60%
29.5%	5.00%	16.17%	23.34%	11.67%
30.0%	5.00%	16.24%	23.54%	11.75%
30.5%	5.00%	16.30%	23.74%	11.82%
31.0%	5.00%	16.36%	23.94%	11.89%
31.5%	5.00%	16.43%	24.14%	11.96%
32.0%	5.00%	16.49%	24.33%	12.03%
32.5%	5.00%	16.55%	24.53%	12.11%
33.0%	5.00%	16.61%	24.72%	12.18%
33.5%	5.00%	16.68%	24.91%	12.25%
34.0%	5.00%	16.74%	25.11%	12.32%
34.5%	5.00%	16.80%	25.30%	12.39%
35.0%	5.00%	16.86%	25.48%	12.46%
35.5%	5.00%	16.92%	25.67%	12.53%
36.0%	5.00%	16.99%	25.86%	12.60%
36.5%	5.00%	17.05%	26.04%	12.67%
37.0%	5.00%	17.11%	26.23%	12.74%
37.5%	5.00%	17.17%	26.41%	12.81%
38.0%	5.00%	17.23%	26.59%	12.88%
38.5%	5.00%	17.29%	26.77%	12.95%
39.0%	5.00%	17.35%	26.95%	13.02%
39.5%	5.00%	17.41%	27.13%	13.09%
40.0%	5.00%	17.47%	27.31%	13.15%