International Real Estate Investments by US Pension and Endowment Funds

by

Michael J. Mullins

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University of Miami

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Signature of Author____
Department of Urban Studies and Planning
August 6, 2004

Certified by____
David Geltner
Professor of Real Estate Finance
Thesis Supervisor

Accepted by____
David Geltner
Chairman, Interdepartmental Degree Program in
Real Estate Development

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ABSTRACT

The last decade has seen a renewed interest and resurgence in private IRE investments by US institutional investors. Pension Plan Sponsors and Endowment Funds have sought out foreign real estate to accomplish a variety of goals, such as increased diversification, higher returns, and the pursuit of unique investment opportunities. This thesis attempts to shed light on the current state of IRE investing by such investors. The paper begins with a review of published and unpublished literature on the subject, followed by analysis of an investor survey conducted by the author. A total of 14 Pension Fund Plan Sponsors, Endowment Fund managers, Pension Fund Consultants, Fund Managers, and Investment Managers participated in the study. The results of the survey describe what the current investment practices of US institutional investors are, what reasoning is behind those practices, and what their future investment plans are. The last portion consists of conclusions about these findings and a discussion of future trends in IRE investing may emerge as a result.

Thesis Supervisor: David Geltner
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LIST OF ABBREVIATIONS

B	Billions, $US Dollars
CAFTA	Central American Free Trade Agreement
CAPM	Capital Asset Pricing Model
CMBS	Commercial Mortgage-Backed Securities
DP	Domestic Partner
Eq.	Equity
EU	European Union
GDP	Gross Domestic Product
GM	General Manager (of an investment fund)
IA	Investment Advisor
II	Institutional Investor
IPD	Investment Property Databank
IM	Investment Manager
IRE	International Real Estate
LP	Local Partner
MPT	Modern (Markowitz) Portfolio Theory
M	Millions, $US Dollars
Mil	Millions, $US Dollars
NAFTA	North American Free Trade Agreement
PCA	Pension Consulting Alliance
PREI	Prudential Real Estate Investors
RAR	Risk Adjusted Return
RE	Real Estate
REIT	Real Estate Investment Trust
REOC	Real Estate Operating Company
SIF	Single Investor Fund
US	United States of America

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I. INTRODUCTION

Investments in international real estate (IRE) by US institutional investors have a relatively short history. Some investors experimented with international investments in the 1980's, with few positive experiences. Despite past experiences, the last decade has seen a renewed interest and resurgence in IRE investments by US institutional investors. Pension fund plan sponsors, endowment funds, and others have sought out foreign real estate for a variety of reasons, such as increased diversification, higher returns, and unique investment opportunities.

This thesis will explore the current IRE investment practices of US institutional investors, focusing on pension funds, endowment funds, and the consultants and investment managers who cater to them. The goal of this study is to determine, in terms if IRE, what the institutional investors' current investment practices are, what reasoning is behind those practices, and what trends may emerge as a result. Hopefully, the results will be enlightening and helpful to academics, practitioners in the field of IRE, and policy makers as they plan for the near future.

The principal questions are what type of investments are institutional investors making, and why. Several vehicles for investment in IRE are available, such as direct investment, managed funds, private equity, etc., allowing investment in myriad product types in many different markets across the globe. The analysis portion of the paper will get into detail on that information, but perhaps the more important question is why; what do such investors hope to accomplish by investing abroad? The literature on the subject is mixed, with no clear consensus on IRE's performance or its importance as a part of the diversified portfolio. As a result, investors and their advisors must draw their own conclusions. Questions remain as to whether these investors are looking for diversification, higher returns, or unique opportunities.

This study included a research effort, which consisted of a survey of institutional investors conducted in June and July of 2004. Via email and telephone, participant were asked 49 questions intended to elicit the following information:

1) Background information on the investor.
2) Investment history of the fund in IRE.
3) Current investment practices of the fund.
4) Which global markets the investor is in.
5) The goal, objectives, and reasoning behind the fund's investments
6) Critical factors affecting the attractiveness of IRE to the investor

A total of 14 pension fund plan sponsors, endowment fund managers, pension fund consultants, fund managers, and investment managers participated in the study. The results, once analyzed, form the basis for the conclusions presented at the end of the paper. The structure of this paper consists of chapters assigned to the various elements described above.

Chapter I is the introduction and provides an overview of the study.

Chapter II provides background on the subject of international real estate. It contains an academic literature review followed by industry literature on the subject from two leading industry members, a consultant and an investment advisor.

Chapter III describes the research portion of this study, consisting of the investor survey mentioned above. This chapter contains an explanation of the goals and methodology of the survey, and a review of the critical assumptions that were used.

Chapter IV contains an analysis of the survey results. It details important data and draws conclusions that help answer the questions identified earlier.

Chapter V is the summary and conclusion. It summarizes the earlier chapters, discusses key results, and identifies topics for further study.

II. LITERATURE REVIEW

Academic Literature

Published research on the benefits of international real estate investment has been mixed. Most researchers seem to believe that IRE will add diversification to a real estate or mixed asset portfolio, but some disagree, or believe that other sources of international diversification (such as equities) are superior. Regardless, the one thing they all might agree on is that lack of high quality data on IRE markets and their past performance. Given the broad nature of the subject matter (all global real estate is included, depending on your perspective), it’s understandably hard to find reliable sources of data for major markets that are appropriate for comparison with one another. As a result, many studies have focused on the best data that is available. In particular, securitized real estate returns have been commonly used, along with private real estate returns from the more developed countries/markets, such as the US, Japan, Great Britain, Hong Kong, etc. The results of past research must thus be considered in light of the data they used when evaluating the authors’ conclusions.

In 1994, Dr. Elaine Worzala, at the time an assistant professor at Colorado State University, conducted a study of overseas investment by pension funds and other institutional investors. Her study makes an interesting comparison for this thesis, as the subject matter is nearly identical. What varies is of course the time of the study (10 years earlier), and the nature of the investors. Worzala (1994) focused on a pool of investors, most of which were British or from the European continent. 60% were British, 23% were Dutch, and only one respondent was American. The focus was intentionally on British investors because they were “historically active” in international investment. Another important detail is the average investor fund size in the Worzala study, which was US only $2.1 billion.

Worzala observed the debate over the benefits of IRE. In her article she referenced several authors who she claimed presented evidence both for and against IRE. She cited Webb and Rubens (1989) as arguing against IRE having a useful place in an institutional investor’s portfolio, and Ziobrowski and Curcio (1991) as showing that Japanese and British investors would not have benefited from IRE diversification during the previous twenty years, while maintaining that the other authors at the time supported its inclusion. For example, she claims Sweeney (1989a and 1989b), Asabere et al (1991), and Worzala (1992) found that “diversification benefits can be found from… overseas property.” Rather than entering further into that debate, however, her 1994 work included a study to shed light on the behavior and decision making thought processes of institutional investors who were actively involved in IRE at the time. The study took the form of a mailed investor survey with several components. It investigated the background information on IRE investments, investment techniques and their usefulness, motivating factors behind investment decisions, the impact of currency fluctuations, and perceived trends in international investment.

In the end, Worzala concluded that some institutional investors were in fact active overseas, and that those investors were primarily seeking diversification, even so empirical findings on the benefits of such diversification had been inconclusive. She also determined that the investors surveyed were not very sophisticated in dealing with currency risk, and were not particularly interested in the “…potential negative impact of currency fluctuations and transaction costs.” She further found that IRE investments were likely to increase in the future.

Since the Worzala article, additional research has been published in favor of IRE as a source of diversification. Eichholtz, Huisman, Koedijk and Schuin (1998) found that north American returns are driven by a strong continental factor, suggesting that US investors need to go abroad to achieve optimal diversification. The study found that Asia does not have a continental factor, while Europe does. They also found some correlation between the US and Asia. The implication is that Asia can provide diversification for Europe, and for the Asian countries themselves. North America, on the other hand, should seek diversification from Europe, and vice-versa. At the same time, it suggests that investors can only attain optimal diversification by investing across continents, as opposed to simply investing in neighboring countries. Further, the authors, sensitive to the costs and difficulty involved in investing abroad, suggest that most of the diversification benefit can be attained by investing in one country or market in a given continent, taking advantage of the 'continental factor'.

Chenh, Ziobrowski, Caines, and Ziobrowski (1999) challenge whether IRE is as effective at providing international diversification as other international asset classes. Nevertheless, they suggest IRE can still be an effective diversifier. The authors admit that the works of Giliberto and Testa (1990), Gordon (1991), and Eichholtz (1996) supported internationally diversifying a real estate portfolio, but counter that those conclusions are limited in that they do not consider the effects on a mixed asset portfolio. They cite Ziobrowski and Curcio (1991) as finding that IRE offers no "unique" diversification benefit to a mixed asset portfolio, asserting that international stocks, bonds, and bills could provide the same benefits. Implied is that since paper assets are easier (cheaper) to invest in, they should be preferred as a means of achieving diversification. The authors also claim that further work by Ziobrowski and others incorporating financial engineering were incapable of improving the efficiency of diversification using IRE.

They found in the 1999 study, using their 'bootstrap' method to model uncertainty, that because of the powerful influence of currency fluctuation, all foreign assets effectively behave as the same asset (that is, their individual return differences to one another are drowned in the massive effects of currency movements). They claim this effect weakens the argument that any particular asset class is best for international diversification. Running their model, the authors showed only a small benefit from holding IRE and suggest an appropriate allocation might be 1-3% most of the time. About 5% of the time, however, the conditions occurred when 18% or more would be the appropriate allocation to IRE. They then suggested that 5-10% would be the appropriate long run IRE allocation, but still maintained that other assets can be used most of the time. One note about this study, however, is that it only used data from Japan and Great Britain in this exercise to model the diversification benefits to a US-based portfolio.

Another 1999 study by Eichholtz, Veld, and Vestbirk (1999) considers the use of securitized real estate for diversification. They looked at three issues related to investing in securitized real estate abroad; market size, liquidity, and pricing. They confirmed that while securitized real estate represents only an estimated 3% of the global stock of commercial real estate, pricing was found to be reasonable, securities were liquid, and markets were significant in size, making the largest public property markets viable for institutional investment. The implication was that such securitized real estate might be a substitute for private real estate on a global basis.

Building on that study, Eichholtz, Koedijk, and Schweitzer (2001) remind us of the trade-off between the benefits of diversification from IRE private market investments and the high costs of making those investments. They suggest that those costs can be greatly reduced by investing in securitized IRE in the form of local real estate companies. Their study outlined in the paper compares the performance of 'international' REITs and property shares to 'local' REITs and property shares. They found the internationals underperformed their local counterparts and this underperformance was not due to factors such as leverage, transaction costs, and currency. Rather, local real estate firms seemed to have an overall performance advantage, although as the internationals grew larger, their performance improved, narrowing the performance gap.

More recently, Brounen and Eichholtz (2003) unsmoothed autocorrelations in domestic private and public property markets using methods developed by Geltner (1989a, 1989b) and Giliberto (1990), respectively.

The authors found that returns for securitized and private real estate are increasingly similar when such methods are applied. They posit that the true 'unobserved' property index is somewhere between the lagged, smoothed private index, and the public market, whose volatility is increased by the stock market as a whole. In the end, they use the resulting returns and confirm that the Sharpe maximizing mixed-asset portfolio should contain approximately 10% real estate.

The string of articles by Eichholtz and others help close the gaps in understanding of private and public real estate returns, both domestic and international. They confirm the potential role of real estate in the mixed asset portfolio, affirm the value of securitized real estate for diversification, and help project the true, unobserved returns of real estate. They do not, however, provide conclusive evidence of the absolute diversification benefits of international real estate, or the superiority of IRE in providing optimal international diversification to the mixed portfolio. Such answers may not be forthcoming until the global real estate markets provide better information about private market returns.

Industry Literature

PCA

Pension Consulting Alliance (PCA) provides investment advice and consulting services to pension plan sponsors, typically working directly for the fund's investment board. In some cases, the firm manages discretionary accounts and will make investment decisions for its clients. In all, PCA's clients have invested over $25 billion in real estate, making the firm one of the most influential voices in the industry.

PCA is on the conservative side of the IRE issue, recommending a tactical approach to IRE, rather than a strategic one. In a January, 1998 white paper entitled, "US Pension Fund Investments in International Real Estate," Nori Lietz and Claudia Faust of PCA address the role of IRE in an institutional investor's mixed asset portfolio. The article begins with a brief history of IRE. The authors cite the common reasons for institutional investors to invest in IRE as being, 'because it's there', diversification benefits, and superior risk adjusted returns. They consider 'because it's there', the decision to invest in IRE simply because it makes up a significant portion to the world's real estate, to be insufficient. They also consider to diversification argument to be incomplete, and thus advise investors to seek superior risk adjusted returns as their sole criterion for making investment decisions.

PCA on Diversification and IRE

The article continues with a literature review, following several published pieces to support their viewpoint. The authors point to the important differences between the public and private markets. They agree the initial [research] data support the argument of diversification with public IRE but stress that the time period of the data used in these studies was short (suggesting the long term benefits are unclear), and much of the data points occurred during a strong global market for RE. Third, much of the research advocating the diversification argument is based on securitized real estate, and for many countries there are few public real estate companies, limiting the usefulness of these vehicles. While they concede the US stock market is not highly correlated with domestic real estate (implying it is not correlated with IRE, either), they suggest that strategic commitments of significant size would be necessary to achieve these benefits, and point to the following literature as evidence such an approach would not be reasonable:

They cite several pieces in favor of diversification via IRE investment. They cite Eichholtz (1996) as saying that IRE offers diversification and suggests private IRE would offer more because securitized IRE is linked to the public markets, and Hartzell, Watkins and Laposa (1996) as saying that IRE property stocks are more effective at diversification than international equities. Also, they assert that Gordon and Canter (1997) found that US and foreign property markets are less correlated than US and foreign equity markets, and Asabere, Kleiman and McGowan (1991) and Steinfeld and Zisler (1996) showed a weak correlation between US and International property stocks. They also cite Gordon (1992) as showing that in terms of the private market, US investors can improve diversification by buying property in the UK, and Moore, Freeman, Allen and Ingram (1995) as demonstrating that public and private RE returns track each other within a country (suggesting that public RE securities can be considered a proxy for the private markets). The authors cite Gordon and Canter (1997) again as suggesting that IRE securities can successfully diversify a US mixed asset portfolio and cite Quan and Titman (1996) as finding that private RE capital returns and public equities were not correlated within the US but were highly correlated in the UK and Japan and across Asia in general. These findings suggest that correlation may therefore exist between us equities and certain private IRE markets, but the authors point out that the results were not statistically significant. Lastly, they recount, as previously discussed, that Eichholtz, Huisman, Koedijk and Schuin (1997) concluded that a ‘continental factor’ exists in Europe and North America, but not in Asia.

While Lietz and Faust agree there is evidence that IRE can provide diversification, their conclusion is that certain markets offer more diversification that others, and private real estate has not been established strongly enough as the best source of international diversification. They do believe investors should make allocations to markets with the best possibility for diversification, but assert that international diversification for a mixed asset portfolio can be best accomplished on the equities side, and IRE should always meet or exceed the risk-adjusted returns of US real estate. Regardless, PCA thinks to make an impact (in terms of diversification), 10% of an investor’s mixed-asset portfolio should be allocated to international investments, including real estate, and investors should carefully consider whether that is feasible.

PCA on IRE Performance

Lietz and Faust also point out that not all data support that higher or even equivalent risk-adjusted returns are attainable in international markets. In some cases, they claim IRE was found by researchers to have lower risk-adjusted returns than domestic real estate.

According to the authors, Eichholtz (1996) “drew no conclusions” as to whether IRE offers different risk-adjusted return’s compared to US stocks and bonds. They suggest Gordon and Canter (1997) supported Eichholtz’ findings that public property markets are more volatile than equity markets, and also found that some markets offered higher risk-adjusted returns than the US while others offered lower ones. PCA thinks this may suggest that world risk-adjusted returns are lower and a tactical strategy for IRE would be best. They cite Quan and Titman (1996) as having similar results, but point out that the time periods for all these studies were limited and may be influenced by market cycles. Similarly, they caution against relying upon past performance and question whether investors should invest strategically, risking periodic underperformance, or invest tactically to attain superior performance using market timing.

PCA on Direct Investment in IRE

If an investor does elect to invest in IRE, PCA believes care should be taken to construct a portfolio based on the correlations of the investor’s existing real estate and composite portfolios. They recommend the construction of custom portfolios with investments over-weighted in certain markets which minimize correlations at both levels. One particular fear they have is that previous studies on private IRE performance lack sufficient treatment of the effects of foreign taxation on returns. Private IRE may not be tax exempt, and even if leverage or other shields are used, a significant premium may be needed to compensate for taxes. Likewise, while currency effects have been factored into some of the previous research, such effects may not be applicable to private IRE, either. Finally, since previous studies on the diversification benefits of private IRE, in the opinion of PCA, have been inconclusive, it’s difficult to justify adding it for use with MPT diversification. Their conclusion on these points is that public IRE has an advantage over private IRE since securities are less likely to be affected unexpectedly by the factors above. Thus, In PCA’s opinion, investors should compare after tax private and public IRE returns to other asset classes, especially for tax exempt investors, to determine expected returns.

According to PCA, institutional investors should invest in private IRE only for higher risk-adjusted returns, since the costs of investing in private IRE are higher. PCA in general thinks US pension funds should overweight the domestic market since these additional costs are not present. As previously mentioned, private IRE may not be tax exempt. Volatile exchange rates may further affect returns, and repatriation of capital may be a problem. Private IRE can be difficult to monitor and can be illiquid. Finally, more so than with securitized real estate, political, social, and economic risks come into play, including graft and corruption on the local level. In general, PCA believes that strong local knowledge is needed to execute private market investment, something few US investors can claim to have. .

Summary
Lietz and Faust believe IRE should offer higher risk-adjusted returns than domestic real estate to be considered by a pension fund. Due to their higher growth, developing markets may be better for a strategic approach than a tactical one, and strategic investment should be focused on uncorrelated markets. Investors seeking diversification should a)invest significantly, b) make county allocations systematically, and c)consider the difficulties of the private markets, including rebalancing the portfolio over time. However, given the conflicting research on diversification and the quality if IRE returns, they advise against taking a strategic approach at all. They feel that securitized IRE is better for strategic 'core' investments, and that private investment in emerging markets is better for a tactical 'opportunity' approach, which would provide investors with appropriate returns given the risks and costs involved. Interestingly, they also provide an alternative suggestion for institutional investors to avoid some of the costs of investing locally in private real estate. They propose that swapping investments between foreign and domestic tax exempt investors may be the most efficient and liquid way to achieve international diversification, if it can be accomplished.

PREI
Prudential Real Estate Investors (PREI) is a real estate investment manager for pension funds and other institutional investors. They are one of the largest with over $22 billion in assets under management. PREI's research department produces articles on real estate investment regularly, many of them on the subject of IRE investment. The firm manages real estate investments in multiple markets on behalf of both local and US investors. As such, they advocate IRE investment overseas for their global clients as an achievable source of returns and diversification, and recommend investment across the risk spectrum, from 'core' markets (developed countries) to 'emerging' markets (developing countries with strong prospects).

PREI on Returns for Private IRE
Several articles in PREI's library address the issues we have already identified regarding the costs of IRE investments and the diversification benefits available. Connor, Liang, and McIntosh (1999) attempt to address what Prudential calls "the myth of the foreign risk premium", a common belief in the institutional world that investors should automatically earn a higher return for going abroad. The article classifies this 'foreign risk' risk into three categories- country risk, market risk, and deal risk to illustrate the point that not all foreign deals are the same, much as domestic deals are not. Therefore, they might claim, a very safe, pre-leased office development in London should not necessarily carry a higher return than a speculative office development in Houston. With country risk signifying long term risk, the authors next break countries down into three categories- Core, Core Plus, and Emerging. These three categories allow another dimension of risk to discriminate, for example, between very similar deals in very different markets, such as two pre-leased class A office developments, one in Paris and another in Seoul. They assert that in situations such as these, investors should expect equivalent risk-adjusted returns if the risks, country, market, and deal, have been appropriately measured.

PREI on IRE Allocations
Liang and McIntosh (2000) reunite to establish a premium for each of 50 markets based on PREI's market-based method. The market based method involves using international stock market data from Morgan Stanley in conjunction with Country Credit ratings by Institutional Investor to determine appropriate risk premiums. This contrasts with the categorization method used by others which assigns risk premiums to various categories such as political risk, financial risk, etc. The authors consider the categorization method more subjective with more hurdles, and less useful.

In a subsequent article, Liang and Gordon (2003) identify the various countries/markets suitable for institutional investors. The authors begin by estimating the value of all commercial real estate in various markets as a function of GDP. They then establish appropriate hurdle rates of return for each by plugging in the country's credit rating from Institutional Investor magazine (presumably an advance over manipulating the Morgan Stanley international stock market data as was done in the 2000 paper) and using PREI's 'Foreign Risk' ranking approach discussed above. The authors then use these hurdle rates to classify the countries to assign the Core, Core-Plus, and Emerging categories in a more scientific manner than before. Prudential argues that breaking the countries into certain groups can simplify the investment decision process. Next, rather than discussing the various countries as a global index, the article suggests two approaches to ordering the list. One divides them into four regions- Asia Pacific, US/Canada, Latin America, and Europe. Another divides them into eleven country blocks, such as Emerging Europe, Asian Tigers, etc. Acknowledging that the data on international real estate returns and volatility is often insufficient for using MPT, the authors suggest that both approaches can then be combined with the risk categories to construct model portfolios. Under either the regional approach or the country block approach, allocations are made by region/block, and then by category (Core, Core Plus, and Emerging categories based on weighted average risk and hurdle rates. The 'Emerging' category is further split into Prime and Rationed, with ultra high risk countries such as Argentina in the latter category.) They concluded by explaining that the model portfolios can be adjusted up or down in terms of risk and return by shifting weights between the risk categories.

PREI on Diversification
Lowrey (2002) argues that due to the increasing convergence of the global bond and equities markets, IRE may be the 'optimal starting point' for international diversification. He states that easier means of international diversification exist (such as international equities, bonds, and securitized IRE), but those means come at the expense of additional diversification benefits that are lost. Lowrey also recognizes the fact that most investors use commingled opportunity funds for their IRE investments. The problem he identifies with this type of "one-off" approach is that they are exposed to greater risks. Acknowledging that there are "substantial" costs to investing abroad, and different, but not necessarily more, risks, the paper insists a framework can be used based on both Prudential's Core/Core Plus/Emerging markets ranking system and the traditional Core/Value Added/Opportunity dimension to transition institutional investor's from opportunity funds into less risky IRE. The allocation that Lowrey recommends investors make to IRE is a staggering 20-30%, an allocation he feels is large enough to optimize the diversification benefits and maintain a wide "range of potential portfolio strategies". He recommends that the allocation, once determined, be divided into the 9 cells of a matrix with the three market rankings on one side and the three investment rankings on the other, allowing allocations to be shifted between cells to create various investment strategies. These strategies, the author feels, would enable funds to pursue appropriate returns from IRE while obtaining more diversification and being better able to understand and manage the risk of their investments.

Summary
PREI strongly recommends the inclusion of more IRE than most investors have in their portfolios. Prudential maintains that the body of prior academic research, while conflicting, indicates that IRE at least *may* provide optimal international diversification for a real estate and mixed asset portfolio, and that

endorsement is strong enough to warrant significant investments. PREI definitely supports a strategic approach to IRE investing. While they have not attempted to answer the question of how much diversification an investor would (or should) get, PREI's researchers have identified strategies for investing in various risk categories of real estate in a systematic and justifiable way.

Chapter Summary

The academic literature on the diversification benefits (and performance) of IRE has been mixed. As a result, it appears to be possible to construct an argument either for or against IRE investments. Industry members have accordingly been forced to make their own decisions regarding an IRE investment approach. Of the two industry advisors cited, PCA conservatively leans against the inclusion of (direct) IRE for strategic investment, preferring the tactical use of higher return investments in certain markets. Prudential, on the other hand, suggests that costs aside, there are excellent opportunities for direct real estate abroad if investors shift their thinking somewhat and consider alternative frameworks, such as theirs. While prudential has offered some useful methods for introducing lower risk and return IRE to the real estate portfolio, they have not answered the questions posed by PCA and others of how well does IRE perform, and how much diversification does it offer? Most likely, this question cannot be answered without better data from the international markets, allowing for more rigorous analysis of the diversification to occur. Also, research is needed on the true costs of international investment over and above domestic investment in similar assets. While proponents and detractors of IRE investment often cite these costs either as manageable or too great to justify investment, no studies could be found to provide evidence to support either position.

III. RESEARCH

Goals and Methodology

Research Goals

The purpose of the research portion of this study, as stated in the introduction, was to determine, in terms of IRE, what pension and endowment funds' current investment practices are, what reasoning is behind those practices, and what trends may emerge as a result. Accordingly, the investor survey's 49 questions were chosen to shed as much light as possible on those three questions. Combined, the questions attempt to elicit the following information:

1) Background information on the investor.
2) Investment history of the fund in IRE.
3) Current investment practices of the fund.
4) Which global markets the investor is in.
5) The goal, objectives, and reasoning behind the fund's investments
6) Critical factors affecting the attractiveness of IRE to the investor.

Those topics are the combined into three sections in the survey. Section V, Background Information, includes questions 1 through 3 and determines the nature asset base of the respondent. Section VI, International Real Estate Investments, includes questions 4 through 36 and covers the respondent's IRE investment history, current investment practices, and what global markets they are invested in. Section VII, Qualitative Assessment of International Real Estate, questions 37 through 49, addresses the investor's goals, probes the reasoning behind its investments, and solicits open ended responses about the factors affecting IRE investment.

In the literature review portion of this paper, we determined that the previous research on the effectiveness of IRE as a diversifier and/or return enhancer is mixed. This is widely agreed to be because of the lack of good data on foreign real estate markets and their performance characteristics. Consequently, different players in the industry have different opinions as to the role of IRE and what types of investments might be appropriate. The ultimate goal of the research is to poll the actual investors, answer the three questions above, and provide results that will help explain the following:

1) Where do investors stand on the debate for and against IRE?
2) Given the investors' constraints and demands, where is IRE investment likely to head?

These questions are of interest to the IRE investment community as a whole. Consultants and advisors, as well as other investors, should be interested in what the funds are thinking, and what areas of IRE have the potential for growth. Policy makers, both in the US and abroad, should also be interested in IRE investments as a portion of cross-border capital flows, noting both the factors that attract institutional players to a market, and the level of investment that may be attainable.

Comparisons to Worzala's 1994 Survey

The investor survey in Appendix 1 was developed specifically for this study. As a starting point, it incorporates some questions from the survey used by Worzala (1994) in her study of primarily British and Dutch investors. However, this study is longer (49 questions as opposed to 24) and covers a wider range of most topics, as described below.

Questions 1-12 (Appendix I) are loosely based on questions from the Worzala Survey. They describe the respondent, its history in IRE investing, and its allocations at the fund and real estate portfolio level.

Questions 13-18 get into more detail than the previous study, focusing on the product types that the respondent has invested in, such as office and residential. Questions 19-25 on investment vehicles, holding periods, etc., are again based on the Worzala Survey, but in this study attempt to differentiate between the investment vehicles used (closed fund, etc.) and the structures used at the investment level (joint venture, private REIT, etc.). Questions 26 and 27 are new and ask about the performance of past IRE investments and whether the respondent is in developed or emerging markets. Questions 29-32 ask about the investment decision making process and are based on similar questions from Worzala (1994), but in greater depth. Questions 33-36 on currency issues and global markets are again based on questions from Worzala (1994). Questions 37-41 are also based on the Worzala survey but in a very different format. While the 1994 study asked the respondent to rank some of the reasons for investing in IRE and some of the risks, each asked to be ranked on a 1-5 scale, allowing many responses to have the same rank. Conversely, the 2004 study forces the respondent to rank order each answer in a 1-10 system, in an attempt to find out which criteria are truly most important. Finally, questions 43-49 are open ended and very loosely based on the 1994 study. Notably absent from the 2004 survey is a series of questions asked in 1994 about fund reporting and the European Single Market Initiative. Given the variety of investment options available to institutional investors today and the now complete EU, these topics were omitted for brevity.

Description of the Survey Participants

Another significant difference between the two studies is the participants. In the 1994 study, the respondents were chosen (British and Dutch investors) because they had an active history in international real estate development. While they may have been active in IRE, the average size of these investors was a mere $2.0b. In this study, respondents were chosen from the top 35 US plan sponsors and top 6 endowment funds. The average size of all fund respondents (both pension and endowment) was $56.7b. Instead of a history of IRE investment, these funds were picked because they are large investors from the world's largest economy. The assumption in choosing these participants is that the largest funds would have the most sophisticated policies and research capabilities, as well as assets large enough to allow significant allocations to IRE. However, one should bear in mind they are not necessarily the most sophisticated or active investors in this area.

40 pension fund plan sponsors, endowment fund managers, pension fund consultants, fund managers, and investment managers were asked to take part in the study. A total of 14 participated, of which 8 were plan sponsors, three were endowment funds, and 3 were non-investors, a consultant, an investment manager, and a developer/fund manager. The results, once analyzed, form the basis for the conclusions presented a the end of the paper. The 8 plan sponsors who participated were in the top 35 of Pensions & Investments Top 200 list for 2002, (including TIAA-CREF, which was not listed in those rankings but with TIAA's assets of $145b would be second on that list). Three plan sponsors were in the top ten, two were in the teens, and three were in the thirties. Combined assets under management for all plan sponsors totaled $595b, and the average size was $75.1b. Of the three endowment funds, all were from the top 6 funds. Their total assets equaled $28.4b and their average size was $9.4b. Since this study's primary focus is on plan sponsors, their results and the endowments' results were recorded separately. While far smaller than their pension counterparts, the endowment funds proved to be very aggressive and active international investors. When appropriate, their results will be included with the plan sponsors', particularly in the qualitative portions of the research. The non-investor results will only be incorporated in certain sections (primarily quantitative responses) where their views are of particular interest. One important note: because the funds described above were selected from a limited population, and not randomly selected, the results of this study cannot be considered statistically significant. The reader should consider the participating funds and their results a sample that *may* describe the larger population.

Table 3.1	Survey Participants		
Rank	Name	Assets	Type
1	CalPERS	$162,000	Pension Fund
(NR)	TIAA-CREF	$145,000	Pension Fund
8	New York State Teachers	$80,800	Pension Fund
16	Ohio Public Employees	$58,400	Pension Fund
18	Ohio State Teachers	$54,000	Pension Fund
30	Virginia Retirement System	$40,000	Pension Fund
32	MassPRIM	$32,000	Pension Fund
35	Colorado PERA	$28,800	Pension Fund
2	Yale	$12,500	Endowment Fund
5	Stanford	$9,900	Endowment Fund
6	MIT	$6,000	Endowment Fund
-	PCA	$25,000*	Investment Advisor
-	PREI	$22,000*	Developer/Fund Manager
-	Hines	$2,000**	Consultant

*Client funds invested in real estate.
**Funds under management in IRE

Survey respondents were contacted via telephone and email. They were then emailed a preliminary survey, and a telephone interview was schedules. The preliminary survey was a complete survey in the form or a Microsoft Word template with some of the questions hidden. They were asked to return the surveys completed in advance of the telephone interview. During the telephone interview, responses on the preliminary survey were discussed along with the hidden questions, most of which were open-ended. The preliminary surveys were intended to take 30-45 minutes to complete, and the telephone interviews took around an hour. In total, most respondents probably contributed around two hours of their time, with some exceptions. If a question was left blank on the preliminary survey, the respondent was asked for an answer to it in the telephone portion. In some cases, the respondent offered to send along additional information after the telephone interview. Most who offered to did so, but the information was sometimes incomplete.

Assumptions

While many respondents provided excellent data, the surveys and interviews were extensive, and not all the information was collected. In some instances, the participant did not have access to the data; for example, the specific dollar amounts invested in a region that were invested via a commingled fund. Or, the participant did not have time to collect the information. In some cases, the information was considered a confidential or a trade secret. In all, given the very short research period of just 3-4 weeks, a generous amount of information was provided.

In the cases when incomplete data was provided, some key assumptions were made to fill in the 'holes'. The most data problems came in questions 9-11 regarding portfolio allocations and levels of investment now, 5 years ago, and 5 years in the future. For question 9, some respondents gave a range for their current or future allocation figure, in which case the average was used. Few respondents knew what these figures were 5 years in the past. These past allocations, if unknown, were left at zero. In general, most respondents seemed to be familiar with either the dollar amounts invested or the allocation, but not both. In these instances a certain degree of 'reverse engineering' was used to back into dollars or allocations, whichever was lacking. For the equity figures in question 10, most knew the current amount invested, but not the past amount. If so, the past number was assumed to be zero. For the 5 year forward looking projection, most respondents were reluctant to predict a dollar value, but would predict an allocation. By reverse engineering the future allocation against the fund's assets we could back into a figure, but the allocation should be a percentage of the *future* size of the fund, not the present one. So to project the size of the funds in 5 years a growth factor of 4.5% per annum is assumed[1]. Finally, when unreported, levered investments present and five years out were based on the leverage used in current investments by the same plan sponsor/endowment. For example, if a fund's current IRE investments had 65% leverage, that same ratio was assumed for all investments 5 years in the future.

For question 23 and 24, respondents reported their average holding periods and fund sizes. Since the answer was always a range, the average was calculated as a range, with an average 'low' and an average 'high'. Question 36 asks how much equity is invested in various markets across the globe. These responses were particularly problematic, as most respondents did not fill in the individual country investments or risk premiums. Several did however put down a regional allocation such as that for 'Europe' or 'Asia'. For this question, all responses in a region were summed and divided by the number of funds who reported a figure. This was a best efforts approach to get some value out of the responses, and was not based on a rigorous, scientific sampling. Some of this information is presented in the analysis portion to come, but readers should keep in mind that the numbers are not very reliable.

The results were tabulated several different ways for questions 38-41, the rank-ordered response section. Although the section was intended to get the respondents to rank items 1-10, in some cases they ranked several choices 1, several others 2, etc. To make sense of the responses, 4 methods were used. First, responses were averaged, the simplest way to achieve a ranking. Second, the responses were ranked using a scoring system. Under this system, 10 points were assigned for a #1 ranking, 9 points for #2, and so on. Each answer's points were summed and then converted to a 1 to 100 scale. Third, the responses were counted and percentages recorded of how many respondents ranked an answer #1 (the most important reason or factor), how many ranked an answer in the top 3, and how many ranked an answer at all (thereby marking it as an important reason or factor). The three different methods are all equally valid, and the use of all three allows the same information to be presented in a more compelling fashion.

Lastly, the results for questions 42-49 were qualitative and open ended, but to aid in their discussion, selected responses were ranked. For a given question, when a comment or idea was mentioned as a response, it was recorded on a list. As the surveys were added, the number of comments grew and similar comments were added together. For example, if one respondent cited the importance of diversification, and another said that diversification was a benefit of IRE, those responses might have been recorded as 'two responses mention diversification as a reason for investing in IRE'. Since most respondents said something slightly different for each question, this method requires some blending of the answers. When appropriate, the original, unique comments will also be added to add some color to the analysis.

[1] 4.5% was calculated as the weighted average growth of the 8 pension funds who participated over the last two years. The funds' current assets were indicated by the funds in the investor survey and the funds assets from 2 years ago were take from the Pension & Investments' 2002 list of the Top 200 Pension Funds.

IV. ANALYSIS

Background Information

Nature and Background of the Respondents

The plan sponsors and endowment funds who participated were from the top 35 US plan sponsors and top 6 endowment funds, according to Pensions & Investments' Top 200 list for 2002. The fund representatives who filed out the surveys and participated in telephone interview held various titles such as Real Estate Investment Officer, International Real Estate Manager, Real Estate Director, and Director. Attempts were made to get the person most familiar with the decision making process and rationale behind it to participate, as opposed to more junior staff who might be more familiar with technical details about the investments. In the larger funds, IRE tended to have one or two people dedicated to it, whereas in smaller funds, particularly the endowments, the Director of the entire fund was usually the decision maker and very close to the deals. Table 4.1 provides some additional statistics of the participating funds. The average size of all fund respondents (both pension and endowment) was \$57.2b. The 8 pension funds polled averaged \$75.1b and ranged in size from \$28.8b to \$162b. They are considerably larger than the Top 200 average of just \$17.8b. The 3 endowment funds averaged \$9.4b, and their combined assets equaled \$28.4b. All eleven investors were also geographically diverse, with three from the Western United States, two from the Mid West, five from the North East, and one from the South. Other non-investor participants included Prudential Real Estate Investors, an investment manager, Pension Consulting Alliance, a consultancy, and Hines, a developer/fund manager. PREI manages over \$22b in real estate assets worldwide, PCA advises clients with \$25b in real estate assets, and Hines has a portfolio of IRE funds with an estimated \$1.5-2.0b value.

Table 4.1 Survey Participants

Rank	Name	Assets	Type
1	CalPERS	$162,000	Pension Fund
(NR)	TIAA-CREF	$145,000	Pension Fund
8	New York State Teachers	$80,800	Pension Fund
16	Ohio Public Employees	$58,400	Pension Fund
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30	Virginia Retirement System	$40,000	Pension Fund
32	MassPRIM	$32,000	Pension Fund
35	Colorado PERA	$28,800	Pension Fund
2	Yale	$12,500	Endowment Fund
5	Stanford	$9,900	Endowment Fund
6	MIT	$6,000	Endowment Fund
-	PCA	$25,000*	Investment Advisor
-	PREI	$22,000*	Developer/Fund Manager
-	Hines	$2,000**	Consultant

*Client funds invested in real estate.
**Funds under management in IRE

International Real Estate Investments

IRE Investment History

Investors were asked a series of questions about their history of IRE investment. Responses were very strong. Among all funds, 91% had prior investments (all except for one). 82% were currently invested in

IRE, 82% were currently seeking new investments, and 91% (all except for one) planned to invest in IRE in five years. The one investor who did not plan to invest in the future reported a very bad experience in the 1980's, in which the fund lost a significant portion of its investment.

Table 4.2 Investment History

In the past, has your fund invested in IRE?*		91%
Does your fund currently have IRE in its portfolio?*		82%
Is your fund actively seeking new IRE investments?*		82%
If your fund planning to invest in IRE within the next 5 years?*		91%
What are the short term plans for your fund's existing IRE investments, if any?*		
	Hold	73%
	Divest	27%

*All Investors

Investors were also asked how long their fund has invested internationally. Among plan sponsors, 25% said zero years, another 25% said 1-5 years, and the other 50% said 6-10 years. The endowment funds all claimed between one and 10 years. All the non-investors claimed over 10 years of experience in IRE.

Table 4.3 Length of Investment

How long has your fund invested in IRE?	Years			
	0	1-5	6-10	11+
Pension Funds	25%	25%	50%	0%
Endowment Funds	0%	67%	33%	0%
All Funds	18%	36%	45%	0%

The average allocation for real estate among all funds was 8% of the mixed asset portfolio, with a range from 4%-11%. This is an average across funds (as opposed to a weighted average) and translates to real estate equity of \$3.7b per fund, with a total of \$41.5b. The weighted average allocation turned out to be just 6.6%, as some of the largest funds had smaller allocations. This number remains below the recommendation of some researchers who suggest that 10% is the appropriate allocation for an institutional investor. Allocations to IRE *within the real estate portfolio* varied greatly. The range stretched from 0% to 33%, with endowment funds having the most aggressive allocations. In this section of the survey, respondents were also asked to provide statistics for 5 years ago, today, and 5 years in the future. The current (today) average across all funds was 9.9% Across pension funds only it was 7.2%. Table 4.5 below shows the considerable growth in allocations. While the data for 5 years past is skewed by several respondents not submitting any data, and therefore getting a 0% allocation, the overall trend is quite clear. The ten year trend for plan sponsors is 2% 5 years back to 7.2% today, growing to 7.5% in five years. Five of the eight funds projected no increase in allocations, while two projected increases that remained below the average, and a third projected a decrease. However, at the time of the study many funds had recently increase their allocations and were not fully invested. The average investment across funds in IRE was 8.9%, compared to the average 10% allocation mentioned earlier. Another notable trend going forward five years is the entrance of funds who have never participated in IRE before, or are getting back into it after a long absence.

Table 4.4 Investment Size		
What is your preferred investment size? (mil)*		
	Range	Average
Fund	\$35-\$105	\$70

*All Investors

Table 4.5 Allocations			
Average Allocation Within Real Estate			
	5 years ago	Today	In 5 Years
Pension Funds	2.1%	7.2%	7.5%
Endowment Funds	9.0%	17.2%	27.5%
All Funds	4.2%	9.9%	13.0%
Average Allocation Within Mixed Asset Portfolio			
Pension funds	0.14%	0.52%	0.53%
Endowment Funds	0.91%	1.80%	2.87%
All Funds	0.37%	0.87%	1.17%

Following the allocations, respondents reported their investments in real estate, both levered and unlevered, over the same ten year horizon. Many funds had no investments in IRE five years back, and the resulting growth is impressive. Average investments in IRE across all funds grew from \$54m to \$225m today, and are expected to reach \$486m in five years. This high rate of growth is due to both an increase in allocations and a project 5% annual growth rate of the funds assets. Both of these forces will require significant annual investments in IRE to balance the mixed asset portfolio. If the asset growth projections are correct, the growing allocations call for an increase in total IRE equity of these 11 funds from \$2.47b today to \$5.43b in five years. That's \$2.8b over five years, or an average of \$600b per year (\$52m per fund, per year).

Table 4.6 Equity Investment in IRE			
Average equity investment across funds (mil)			
	5 years ago	Today	In 5 Years
Pension Funds	\$64.0	\$250.5	\$539.9
Endowment Funds	\$25.0	\$156.2	\$341.3
All Funds	\$54.3	\$224.8	\$485.7
Total equity investment*	\$434	\$2,473	\$5,343
Total levered investment*	\$1,169	\$7,081	\$14,843

*All Investors

The projections for levered investments are even more dramatic. Respondents reported leverage in their IRE investments of 60-75%, meaning that the \$2.5 in equity today is invested in an estimated \$7.0b in real estate, up from \$1.2b five years ago. In five years the number may swell to \$14.8b, an increase of almost \$8b, or \$706m per fund.

Current Investment Practices
The investment practices portion covered a broad range of topics. Some questions covered what types of assets were invested in, what ownership structure was used, and what vehicle were used. Others covered preferred investment sizes and benchmarks, past performance of investments, and the decision making process.

Opportunity investments were the preferred category for 82% of all funds, with 55% indicating they also invest in value added. Only one plan sponsor (13%) indicated that they invest in international core real estate, and two of the three endowment funds claimed to invest in core plus. For most, the reason for excluding core was that such investments in international markets don't offer enough risk adjusted return. This implies that international opportunity investments do provide enough risk adjusted returns, although that question was not asked. Endowment funds showed little to no interest in core real estate. When asked about why they do not invest in core real estate, one endowment fund respondent replied, "We *sell* core." The asset types of the investments varied. A majority of respondents were invested in office, retail, industrial, hotels, and apartments. A minority were invested in resorts and for-sale housing. Self storage, parking, and gaming were each cited by one fund as an investment. Almost all respondents said that the investment types selected were chosen by the fund manager, and were at the manager's discretion.

Table 4.7 Product Categories

What product categories do you invest in?*

Opportunity	82%
Value Added	55%
Core Plus	27%
Core	9%
Other (Specify)	9%

*All Investors

Table 4.8 Asset Types

What asset types do you invest in?*

a. Office	82%
b. Retail	82%
c. Industrial	73%
d. Hotel	73%
f. Rental Housing	73%
e. Resort	45%
g. For-Sale Housing	45%
h. Other (Specify)	36%

*All Investors

All funds with present investments indicated they were invested in class A properties. Only one plan sponsor said they were *not* in class B as well, and 45% said they were in at least some class C deals.

According to some participants, this tended to be because a fund manager was targeting that asset class as part of a particular strategy.

Table 4.9 Asset Classes

What asset classes do you invest in?*

a. Class A	82%
b. Class B	73%
c. Class C	45%

*All Investors

For investment vehicles, domestic commingled closed funds dominated. 73% of all funds identified them as an investment vehicle they use. The remainder of 27% includes funds which indicated they are not active in IRE real estate at all, meaning that *all* active investors used such funds. Foreign managed commingled closed funds were a distant second at 36%, with only one or two funds saying they use direct investment, joint ventures, or managed single investor funds. Single investor funds were not an option for most because they were not willing to commit enough capital, or felt safer with other investors involved and monitoring the investment. The choice of vehicle responses were strikingly different from Worzala's 1994 survey in which wholly owned or joint venture was the preferred vehicle with closed funds considered only an "alternative vehicle". The common reason for the use of closed funds in this study was that foreign markets require expertise that the funds do not have, making any form of direct investment impractical. When asked how important it was to have co-investors in IRE investments, most (7 out of 11, 64%) said it was 'very important' and one said it was 'fairly important'. Two respondents mentioned that co investment was important to create the proper alignment of interests.

Table 4.10 Investment Vehicles

What investment vehicles do you use for IRE?*

d. Domestic Managed Commingled Closed Fund	73%
f. Foreign Managed Commingled Closed Fund	36%
g. Other (Specify)	18%
a. Direct Investment	9%
b. Managed Single-Investor Fund	9%
c. Domestic Managed Commingled Open-ended Fund	0%
e. Foreign Managed Commingled Open-ended Fund	0%

*All Investors

Table 4.11 Importance of Co-Investors	
How important it is to have co-investors in your IRE investments?*	
Very important	64%
Important for alignment of interests	9%
Fairly important	9%
GP co-investment is necessary	9%

*All Investors

The types of investment structures were more across the board. For the purpose of this study, 'structures' referred to the form of ownership of the entity that held the real estate below the fund level. While respondents indicated this was primarily the discretion and responsibility of the fund manager, they offered some insights on what forms were used. Joint ventures with domestic partners and joint ventures with other institutional investors were most popular, although given the responses on investment vehicles they may mean the same thing to some investors. Private equity and local joint ventures were used by a minority, along with securitized equity and direct investment. The responses for securitized equity may be undercounted since for most plan sponsors' REIT stocks were managed under the international equities portion of the mixed asset portfolio. Typically, REIT in general were not counted by real estate managers at plan sponsors as part of the fund's real estate portfolio.

Table 4.12 Investment Structures	
What structures (form of ownership) do you use for investing in IRE?*	
f. Private Equity (REIT, REOC)	55%
b. JV with Local Partner	45%
d. JV with Other Institutional Investor	45%
a. Direct	36%
c. JV with Domestic Partner	36%
g. Other (Specify)	27%
e. Securitized Equity (REIT, REOC)	18%

*All Investors

Actual investment sizes varied at the fund level between $25m and $200m, and the average investment was $60m. At the property level, investors thought that the deal size ranged from $3m to $50m with an average of $19m. Respondents were not asked how many deals were in a typical commingled fund.

Table 4.13 Investment Size		
What is your preferred investment size? (mil)*		
	Range	Average
Fund	$35-$105	$70

*All Investors

Holding periods for investment tended to be again the domain of the investment fund manager, but all respondents reported averages at the fund level of 7-10 years and 2-6 years at the project level. Often, the holding period was tied to strategy, and at least one investor was in a fund that had an extension option in case local conditions warranted it. Investors seemed to understand that complex IRE investments sometimes took longer to execute, or may face challenging local market conditions making liquidation difficult. Nonetheless, 15 years was the longest fund life reported at the fund level and 12 years was the highest reported at the property level.

Table 4.14 Holding Period

What is your typical holding period? (years)*

	Range
Fund	7.5 - 10.2
Deal	2.4 - 6.3

*All Investors

Benchmarks were commonly described by respondents as one of the biggest problems with IRE. Some used an index approach using the NCREIF, while others attempted to use the Global Real Estate Securities Database from Global Property Research or data from Investment Property Databank, Ltd. (IPD) Others simply identified a target return between 11% and 20%, or a 500-1000bp premium over their core benchmark. This lack of effective benchmarks is tied to the lack of data on IRE performance, and may be one of the barriers preventing US investors from moving into lower return, lower risk investments. When all investors were next asked how their investments had performed, 63% said it had performed as expected or better. 27% said it had underperformed, and the remaining investor had no international investments.

Table 4.15 IRE Performance

Have your IRE investments performed as expected?*

Over	36%
As expected	27%
Under	27%

*All Investors

Decision Making Processes

In one series of questions, the participants were asked which resources they use to make investment decisions. The resources they picked from included in-house research, third party research, investment advisors, local partners, and other. In this series they were asked how they decide which markets to invest in, which vehicles and structures to use, and which projects to invest in. Unfortunately, since the investors used commingled closed funds almost exclusively, with little direct investment, the answers to each question are almost identical. Most investors claimed to use more than one of the resources, with investment advisors/fund managers being the most popular resource, followed by third party research and in-house capabilities. The best way to explain the data is that investors tended to see the deal structure, project selection, and market selection as the domain of the fund manager, while they saw the choice of vehicle (the fund itself) as their decision. Investors took surprisingly little ownership of the decision of which markets to invest in. Only 45% claimed to use in house research to decide which markets they should be in, suggesting that they are picking which funds they want to invest in, not which markets. This finding may disappoint some who believe that IRE investments should be allocated to markets using MPT or another systematic method. It is highly doubtful that anything other than simple diversification could be accomplished using funds that invest across markets.

Table 4.16 Decision Making Processes	
How does your fund decide which vehicles to invest in?*	
a. In-house research	73%
b. Third Party Research	45%
c. Investment Advisors	36%
e. Other (Specify)	18%
d. Local Partners	9%
How does your fund decide which structures to invest in?*	
a. In-house research	55%
c. Investment Advisors	45%
b. Third Party Research	27%
e. Other (Specify)	27%
d. Local Partners	9%
How does your fund decide which projects to invest in?*	
c. Investment Advisors	55%
e. Other (Specify)	36%
a. In-house research	27%
b. Third Party Research	18%
d. Local Partners	18%

*All Investors

A following question asked what type of approach investors use to find investments. The type of investment was not specified, but considering the predominant vehicle, it's same to assume they responses refer to fund level investments. For most, the answer was a combination of both the bottom up and top down approach (64%). Investors received many investment offers but also pursued investments they heard of through their network and found interesting.

Table 4.17 Investment Approach	
How does your fund pursue IRE investments?*	
c. Combination of both	64%
d. Other (Specify)	18%
a. Bottom Up	9%
b. Top Down	0%

*All Investors

Global Markets

Investors who took part in the study were in both emerging and developed markets, although developed markets were favored. 80% of the investors were in such markets, with 55% in emerging markets. When all investors were asked how they decided which markets to invest in, 64% cited third party research as a resource, 55% cited investment advisors, and as previously discussed, 45% cited in house research. Most investors used a combination of the three. Endowment funds were more likely to rely on in-house research, while plan sponsors were more likely to rely on their investment advisors. When asked in an open ended format what factors made a country attractive for investment, a stable political environment was the number one response (cited by 36%). Investors mentioned both local as well as geopolitical stability as being important. A series of responses followed that were cited by at least two respondents (18%), including a stable currency, a cyclical investment opportunity, favorable taxation, and others. A complete list of responses is in Table 4.19 below. Although respondents favored positive conditions such a GDP growth, a diverse commercial real estate market, and liquidity, more than one respondent stated the appeal of some inefficiencies that might create opportunities for an overseas investor, similar to the desire for a market to be in the right part of the real estate cycle for investment. The answers most likely reflect that as opportunity and value added investors, the respondents probably do not have a stake in core real estate and are therefore not as interested in the long term performance prospects of a given market.

Table 4.18 Global Investment

What types of international markets do you invest in?*

Developed	82%
Emerging	55%

How does your fund decide which markets to invest in?*

b. Third Party Research	64%
c. Investment Advisors	55%
a. In-house research	45%
e. Other (Specify)	36%
d. Local Partners	9%

*All Investors

Table 4.19 Desirable Country/Market Factors

What factors make a country desirable for investment?*

Stable Government	36%
Less currency risk	27%
Cyclical opportunities/inefficiencies	18%
Large, diverse property market	18%
Good Liquidity	18%
Transparency	18%
Good regulatory system	18%
Good legal system	18%
Taxation Issues	9%
Growth Opportunities	9%
Less property risk	9%
High GDP Per capita	9%
Good demographics	9%
Good supply and demand	9%
Good underwriting environment	9%
Easy repatriation of capital	9%
This is not a fund issue	9%

*All Investors

Currency risk was treated lightly by the respondents. 50% of plan sponsors said they used some currency hedging, but most left it to the responsibility of the fund manager. In some cases it was handled in house, but if so it was done at the mixed asset portfolio level and considered along with all international equities. Endowment funds did not hedge. 36% of all funds did not have any strategy for dealing with currency risk.

Table 4.20 Currency Risk

What strategy does the fund use for dealing with exchange rate risk?*

a. None	36%
c. Currency hedging	36%
d. Other (Specify)	27%
b. Balanced allocations	18%

*All Investors

Overall, investors said they had assets in between 6 and 16 countries, 11 on average. As almost all investments were in commingled vehicles, and few had easy access to the data on actual equity invested in each country. This tendency in itself suggested that the funds did not look a the countries as individual markets. Rather, they probably saw them as regional markets. Investors said they might invest in a Japanese distressed debt fund (which was considered a real estate play), an Asia opportunity fund, or a European Value-Added fund, for example. One investor reported being in a global fund. Nonetheless, some did provide data, which is presented below in Table 4.21. Europe was most popular among active investors, with an average of $113m per investor, followed by Asia with $80m, and Canada and Mexico with $31m. South America and 'other' had insignificant amounts of investment.

Table 4.21	Global Markets	
Which Countries/Markets are Funds Invested In?*		Average Amount* (mil)
Europe		$112.8
	EU	x
	Northern Europe	x
	Eastern Europe	x
	Russia	x
Eurasia		$0
	Persian Gulf States	
	Mediterranean States	
Asia		$79.9
	China	x
	India	
	Hong Kong	x
	Singapore	x
	South Korea	x
	Taiwan	x
	Indonesia & Malaysia	x
	Central Asia	x
	South Asia	x
Japan		$29.0
Africa		$0
	South Africa	
North America		$31.8
	Canada	x
	Mexico	x
Central & South America		$0
	Central America	
	Brazil	x
	South America	x
Australia		x
Other		$81

*An 'x' means at least one respondent had an investment in the country/region.

*All Investors

Investor Objectives and Reasoning

When asked if their fund had a formal policy on IRE, most (64%) said no. In many cases, investors reported that they had policies which allow IRE investment but state few requirements other than an overall limit. In a following question, investors were asked to rank order a series of methods for creating allocations for IRE by importance. They were asked to rank these methods using a 1 through 10 system (1 being most important), but were allowed to assign the same ranking to more than one method if the respondent felt they had the same level of importance. A slightly different system was used in Worzala's 1994 system, in which answers were scaled in importance between 1 and 5, but not against each other. The 1 through 10 system was use to spread the data points farther apart if possible.

Table 4.22 Formal Policies on IRE	
Do you have a formal policy on IRE?*	
No	64%
Yes	36%

*All Investors

The method investors could choose from included MPT (Markowitz, Sharpe, etc.), index based such as CAPM, simple return correlations between international markets, research based local market projections, general experience/intuitive diversification, and other. Table 4.23 below shows the average ranks for each method and its corresponding score on a scale of 1 to 100. While the ranking shows a simple average, the score factors in how many respondents said the method was important as well as the rank.[2] Among all funds, general experience ranked first with an average ranking of 1.38 and a score of 70, followed by local market projection with a rank of 1.71 and a score of 59. The high score of 70 was buoyed slightly by the endowments, who all ranked this the number one means of creating an allocation. MPT, CAPM, and simple correlations came in at the bottom with ranks of 2.67, 3.0, and 3.75, and scores of 22.7, 21.8, and 26.4, respectively. The low scores for these three methods indicate that few respondent thought they were important at all. In all, 73% thought general experience was an important method, and 45% thought it was the #1 method. Only one investor thought that either MPT, CAPM, or simple correlations was the number one method for creating allocations for IRE..

Table 4.23 Methods to Create Allocations

What are the most important methods to create allocations for IRE?*	Score	Rank	% Important	%Most Important
e. General experience/intuitive diversification	70.0	1.38	73%	45%
d. Research based local market projections	59.1	1.71	64%	27%
c. Simple Return Correlations between international markets	26.4	3.75	36%	0%
a. Modern Portfolio Theory (Markowitz, Sharpe, etc.)	22.7	2.67	27%	9%
b. Index based such as CAPM	21.8	3.00	27%	0%
f. Other (Specify)	0.0	n/a	0%	0%

*All Investors

Next, investors were asked to perform a similar exercise for which reasons for investing in IRE are most important. Respondents chose between a number of reasons, including higher yields, higher risk-adjusted returns, portfolio diversification, and market conditions, among others. Table 4.24 below lists the results for this question. Higher risk-adjusted returns was the leader this time, with a score of 60.9 among all funds. Diversification came in second with a score of 55.5, and the opportunity to invest in a ‘growth market’ came in a distant third at 32.7. Higher risk-adjusted returns and diversification were both identified as important reasons by 64% of the funds, yet higher risk-adjusted returns were ranked #1 by 45%, compared to 27% for diversification. The best interpretation of these statistics is that both responses were popular and diversification was often cited, it was general second to the primary goal of investors, which was higher risk-adjusted returns. The high score for diversification contradicts responses in the previous question, in which the systematic methods for maximizing diversification were discarded. The

[2] The scoring system was used because it proved to be a better indicator than average rank. For example, if only one fund out of ten gave CAPM a rank of #1 and no other fund ranked it, it would outrank another category that all the funds had ranked #2. Under the scoring system, CAPM would get a score of 10 and the other category would get a score of 90.

most likely conclusion here is that the investors surveyed believe they are getting the (simple) diversification benefits of IRE but do not know how to measure them more scientifically.

Table 4.24 Reasons for Investing in IRE

What are the most important reasons for investing in IRE?*	Score	Rank	% Important	%Most Important
b. Higher risk-adjusted overall returns	60.9	1.75	64%	45%
c. Portfolio diversification	55.5	2.29	64%	27%
e. Strong local market future growth projections (growth economy)	32.7	3.80	45%	0%
i. Unique development opportunities	30.9	4.20	45%	9%
j. Lack of domestic opportunities	30.0	2.75	36%	0%
a. Higher yields	22.7	2.67	27%	0%
k. Other (Specify)	22.7	2.67	27%	9%
d. Strong local market current performance (hot market)	11.8	4.50	18%	0%
f. Strong local market currency (stable currency/monetary policy)	10.0	5.50	18%	0%
g. Strong local market currency prospects (upward pressure on cu	2.7	8.00	9%	0%
h. International income/liability matching	0.9	10.00	9%	0%

*All Investors

Another question asked investors what resources they found most important for successful IRE investing. The results are listed in Table 4.25. Choices included a dedicated internal team, investment consultants and advisors, and a variety of local market conditions, along with certain types of local partners, such as one that's connected or professional. The top scoring response was an experienced investment advisor/fund manager, with a score of 60.9. Second was an experienced domestic partner, identified as a developer or asset manager, with a score of 50, but some respondents indicated that was the same as the GM of an investment fund. Given that almost all investors used closed funds for their preferred vehicle, they seemed to be saying that those managers are the most important resources. The next highest score was 46.4 for an experienced local partner. Surprisingly, a dedicated internal team was only identified by two investors as an important resource, and no investors identified an experienced consultant as an important resource for IRE investing. One possible interpretation of that last statistic is that funds saw the consultants as part of the decision to invest internationally or not, but that they were either not used or not effective for choosing between and monitoring the actual investments. Another, based on some anecdotal evidence, is that consultants were considered important to analyze or validate investments, offering guidance to the funds and their boards to protect from making an unwise investment in a closed fund , but were not considered a critical factor in the ultimate success of an investment.

Table 4.25 Important Resources

What are the most important resources for successful IRE investing?*	Score	Rank	% Important	%Most Important
c. Experienced investment advisor/fund manager	60.9	1.43	64%	55%
h. Well-connected local partner	52.7	2.71	64%	9%
g. Professional local partner (reliable & transparent, best practices	50.0	3.14	64%	0%
i. Experienced local partner (track record with institutional investor	46.4	2.50	55%	0%
e. Inefficient local market (less competition, higher need for capital	30.9	2.50	36%	0%
f. Experienced domestic partner (developer or asset manager)	30.9	2.50	36%	0%
a. Dedicated internal team	15.5	2.50	18%	9%
d. Efficient local market (data availability, effective regulation, etc.)	7.3	3.00	9%	0%
j. Other (Specify)	7.3	3.00	9%	0%
b. Experienced investment consultant	0.0	n/a	0%	0%

*All Investors

The final ranked question asked what were the greatest challenges to IRE investing. Choices are listed below in Table 4.26 and included finding opportunities, finding local partners and service providers, finding fund managers, and a number of factors dealing with international investments in general, such as taxation, repatriation, regulatory environments, etc. Given the fact that closed funds are the predominant vehicle and that fund managers were identified earlier as the most important resource, it is not surprising that ‘finding an experienced investment advisor/fund manager’ was also considered the greatest challenge with a score of 53.6. This score was much higher for endowment funds than for pension funds, however. The endowment funds gave this answer a perfect score of 100 (bear in mind that just three endowment funds took part). For plan sponsors it was still the highest, but with a score of just 36.3. A similar effect happened in the previous question, where the endowments also gave the fund managers a perfect score as the most important resource. The endowment funds all seemed to have a more aggressive, entrepreneurial approach to IRE in general, and more than one said they were always looking for overseas talent and new opportunities. This tendency also explains that the first answer to this question. ‘Identifying institutional quality opportunities abroad’ as challenge to successful investing was ranked 90 by the endowments but ranked 0 by the pension funds. Endowment funds also ranked highly the challenges of finding local partners and evaluating investments. The pension funds, in contrast, did not respond strongly to either of these challenges. The local partner answer was further broken down into three sub choices, those being the importance of an experienced local partner, a professional local partner, and a well connected local partner. The investors seemed to make no significant distinction between the three. One commented that they would not invest with a local partner who is not professional, and a professional partner tended to be well connected and experienced as well. Of course, selecting a local partner was also the domain of the fund managers, and not a responsibility of the investors. Of the remaining answers, several were identified as important challenges but non scored higher than the low 20’s by either group. Issues such taxation, repatriation, regulatory environments, and illiquidity were not widely considered to be important challenges. The sense from these scores and comments was that these risks exist, but cannot really be planned for. Investors felt that a market was either suitable for opportunity or value added investment, or it was not. Once the investment was made, any problems that came up were the responsibility of the fund manager and there was little the investor could do. Several plan sponsors mentioned that unless a closed fund had just a few investors, those investors had little say in the execution of the investments beyond the guidelines established in the partnership agreement. Hence, the real risk and important challenge for these investors was ‘picking the right horse’ before they committed their capital.

Table 4.26 Greatest Challenges

What are the greatest challenges to successful IRE investing?*	Score	Rank	% Important	%Most Important
d. Finding experienced investment advisor/fund manager	53.6	1.50	0%	0%
b. Finding suitable local partners (development and asset manage	37.3	2.80	45%	9%
a. Identifying institutional quality opportunities abroad	24.5	2.00	27%	9%
e. Evaluating investments (data availability, legal reviews, etc.)	21.8	1.75	55%	45%
j. Illiquid local markets (disposition)	20.0	3.00	9%	0%
f. Taxation differences between countries	19.1	n/a	27%	0%
l. Other (Specify)	18.2	4.00	18%	0%
h. Local regulatory environments (land use, etc.)	13.6	3.00	9%	0%
k. Cultural differences/barriers	10.0	3.50	27%	0%
g. Difficulty repatriating profits and capital	7.3	1.17	27%	0%
i. Currency risk	6.4	4.00	18%	0%
c. Finding suitable local service providers (property management,	0.0	1.75	0	0

*All Investors

Qualitative Assessment of International Real Estate

Critical Factors Affecting IRE

The remaining questions in the survey were open ended and dealt with investors' opinions about IRE investing. Areas covered included the importance of IRE, the competitiveness of US investors abroad, the greatest advantages and risks of IRE, future trends in IRE investing, and factors that make IRE more or less attractive to US institutions. Among all funds, when asked how important IRE is to their real estate investment strategy, most (72%) said it was important, although while 36% said it was either 'important' or 'very important', another 36% said it was 'less important'. Some who claimed it was less important said it was because of the relatively small amounts of equity actually invested, too small to have significant effects on the fund as a whole. Three said IRE was important because it generated higher risk adjusted returns, and several said it was important either to open up additional opportunities, offer diversification, or simply to 'stay in the market'.

Table 4.27 Importance of IRE

How important is IRE to your real estate investment strategy?*

	Less important	36%
	Higher risk adjusted returns	27%
	Important	27%
	Very important	9%
	Need to stay in the market	9%
(Important for…	More opportuinities	9%
	Diversification	9%
	Cyclicality/inefficiences in markets	9%

*All Investors

Most of the investors surveyed said that US investors are not very competitive compared to local investors. They felt that US investors need a local partner, and access to lots of capital is not necessarily an advantage. In fact, some felt it was a liability because the investors might be a target for locals, or worse, that multiple foreign investors might compete for the same project, driving down returns. The only advantages cited by the respondents were a greater willingness of US investors to take on risky/opportunistic projects and a better strategic viewpoint, being able to 'see across markets'.

Table 4.28 Competitiveness of US Investors	
How competitive do you believe a US investor can be compared to local investors?*	
Not very	27%
They must partner locally	27%
They must have local knowledge	27%
Money is sometimes an advantage	18%
Locals will have access to deal flow	18%
They can coinvest/collude	18%
Money in not an advantage	18%
They are better strategic thinkers	18%
They are less risk averse	18%
Best practices give an advantage	18%
They are competitive	9%

*All Investors

Greatest Advantages and Risks

The most commonly cited advantage of IRE was higher returns (45%), represented by comments about higher yields, overall returns, and the ability to 'buy value' in certain markets. The second most commonly cited advantage was diversification (36%), followed by several less popular advantages such as access to a greater pool of fund manager talent (18%), more opportunities (9%), local market inefficiency (9%), and others (9%). A complete list is below in Table 4.29. The number one disadvantage was political risk (36%). Currency risk, liquidity risk, and local market risk came in second (27% each), followed by taxation and legal risk (both 18%). A number of other risks were mentioned just once including underwriting, execution risk, and the overall risk of lower returns than anticipated.

Table 4.29 Greatest Advantages of IRE	
What do you perceive to be the greatest advantages of IRE?*	
Higher returns	45%
Diversification	36%
Pool of International talent	18%
More opportuntites	9%
Inefficiency in local markets	9%
Discounts	9%
There is no diversfication	9%
Provides information on markets	9%
Large untapped markets	9%
Less local competition	9%
US best practices add value abroad	9%

*All Investors

Table 4.30 Greatest Risks of IRE

What do you perceive to be the greatest risks of IRE?*

Political risk	36%
Currency risk	27%
Illiquidity risk	27%
Local market risk	27%
Changes in taxation	18%
Legal challenges	18%
Repatriation of capital	9%
Not getting a good local partner	9%
Execution risk	9%
Underwriting errors	9%
Fund manager underperformance	9%
Lower returns	9%

*All Investors

Future Trends

The second to last question on the survey asked, "What trends do you currently see in IRE investing? What is your impression on them? Which do you see as the future of IRE investment?" The top response (55%) was that investors expected to see yield compression and movement away from high returns. This jibed well with the second most popular response that continued growth in opportunity funds would occur (45%). It stands to reason that as more money moves in, yields (returns) will fall. The sense in talking to some investors was that eventually, IRE may become less attractive as more investors get on the bandwagon and compete for deals. However, 27% of all funds saw continued convergence of global markets and some felt that eventually such convergence would lead to more investments in the lower risk categories (core and value added) that many institutional investors currently avoid. Other predictions included more geographically balanced investments, more repeat funds, more small funds, and more investment in Asia.

Table 4.31 Trends in IRE

What trends do you currently see in IRE investing?

Movement away from high returns	55%
Growth in funds	45%
Convergence of global economies	27%
Balanced geographic investments	9%
Value added more popular	9%
Not sure	9%
Repeat funds popular	9%
More small funds	9%
Asia more popular	9%
Transparency improving	9%

*All Investors

Factors that make IRE Attractive

In the final question, respondents were asked what factors that would make IRE more or less attractive in five years. Responses were unfortunately mixed with few popular responses. Improved transparency, continued globalization, better benchmarks, improved currency stability, and others were optimistic responses that suggested as these factors improve, IRE will become easier to invest in, perhaps inviting institutions to invest for lower returns. Some responses were more pessimistic, suggesting that higher returns or more fund management talent would be needed to increase investment. The implication in those two comments is that without more high return investments, growth in IRE may ultimately be limited. A couple of responses suggested specific factors that would assist in strengthening local markets and thus indirectly making IRE more attractive. Suggestions included the adoption of CMBS in local markets and stronger local capital markets to buy down yields on core products, creating higher exit prices for value added and opportunity fund investments.

Table 4.32 Factors Making IRE More Attractive

Pool:

What factors would make IRE more or less attractive in the next five years?

	New talent	18%
	More transparecny	18%
	Higher returns	18%
	Continued globalization	18%
	Political stability	9%
	Efficient local markets	9%
	Development of local markets	9%
	Better benchmarks	9%
Less attractive:	Lower returns	9%

*All Investors

Chapter Summary

Eleven US institutional investors participated in the study. Eight were from the top 35 pension funds, and three were from the top 6 endowment funds. The average size of all funds was $56.7b. While most funds reported some current level of investment in IRE, only half had invested for over five years. The success of those investments was mixed, but the majority felt that their investments had performed over or above expectations.

Allocations to IRE were shown to be increasing over time, with most of the growth coming from funds getting into IRE who previously had no investments. Average IRE allocations (within the real estate portfolio) across pension funds grew from 2.1% five years ago to 7.2% today, to 7.5% in five years. In addition, most funds were shown to be invested below their target allocation. Those two factors, when combined, predict a very significant influx of capital into IRE. The equity invested in IRE by the 11 pension and endowments funds included in the survey alone is expected to increase from $2.47b today to $5.34b in five years. By far, the predominant vehicle used to invest this money has been commingled closed opportunity and value added funds.

Benchmarking was identified as a problem by the institutional investors surveyed. Investors relied upon return projections made by their fund managers and targeted opportunity and value added funds they felt would exceed their domestic core returns by a reasonable amount. Most investment decisions were made based on information provided by the investment fund manager, with other sources such as internal or third party research factored in.

Investors are in a wide range of countries and markets, both developed and emerging, and in almost every asset type and class. For countries, most markets with good growth prospects and without serious political or economic issues were considered suitable for investment. Mexico has been a big recipient of fund dollars due to the reforms and economic growth that came with NAFTA. Central American nations may benefit in a similar way if CAFTA is approved. The choice of which asset to invest in was generally up to the fund manager, but the investors themselves seemed to be comfortable in wide variety of products. Investors were not, however, actively dealing with currency, taxation, and a host of other issues. Again, because of the huge responsibility of the fund manager over the investments, the investors are not forced to manage these effects, and probably have not developed the capabilities necessary to do so.

The number one for investing internationally was returns. Many investors felt that higher risk adjusted returns could be attained by investing abroad, due to inefficiency and unique opportunities in local markets. Diversification was also mentioned as a reason to invest, but the investors were only making allocations using general experience and intuitive diversification, instead of using a more rigorous, systematic approach. This pattern suggests that the investors believed they were getting some diversification benefits, even if they could not be measured, but that diversification was not a critical factor in the investment decision. After diversification, respondents also indicated a desire to invest in growth markets, presumably in emerging economies.

For success, most funds look to invest with the best fund managers, which for some were not the largest fund managers. Investors mentioned the desire to work with talented managers who are focused on the real estate, and at least one mentioned a preference for smaller firms, claming that the larger the manager, the less focused they are on the real estate itself. Not surprisingly, finding the right fund manager was also considered the greatest challenge of investing internationally. Respondents considered the next most important resource to be an excellent local partner, even so the respondents did not work directly with these firms. Most respondents felt that US investors cannot be competitive with local investors and need local partners to invest successfully. Ultimately, the funds surveyed said that IRE is important to their overall real estate strategy, whether for returns, diversification, or simply to ‘stay in the market’. Political risk and currency risk were their top concerns when investing abroad, with political risk being the foremost concern.

The investors who took part identified several trends they saw emerging over the next five years. Many expect yield compression to take place as has happened in the US domestic market, although some mentioned that if capital flows out of US real estate into the stock market, IRE returns may stay relatively high. They also saw more investment funds on the horizon, both new funds from new entrants and also repeat funds from established players. In a very optimistic note for advocates of IRE, some investors also saw continuing global market convergence leading eventually to lower return/risk investments (such as core real estate) by pension funds. Several saw value added investment growing in the near term. The investors identified several factors that would make IRE more attractive to them, presumably helping this transition. The factors included improved transparency, continued globalization, better currency stability, and better benchmarks.

V. SUMMARY & CONCLUSION

Introduction

The stated purpose of this thesis was to explore the current IRE investment practices of US institutional investors, focusing on pension funds, endowment funds, and the consultants and investment managers who cater to them. It has consisted of a literature review, a research portion, and an analysis of the results of the research. The goal of the research portion of this study was to determine what institutional investors' current investment practices are, what reasoning is behind those practices, and what trends may emerge as a result.

The research portion of this study consisted of a survey of institutional investors conducted in June and July of 2004. The survey contained 49 questions designed to elicit the following information:

1) Background information on the investor.
2) Investment history of the fund in IRE.
3) Current investment practices of the fund.
4) Which global markets the investor is in.
5) The goal, objectives, and reasoning behind the fund's investments
6) Critical factors affecting the attractiveness of IRE to the investor.

These topics were combined into three sections in the survey: Background Information, International Real Estate Investments, and Qualitative Assessment of International Real Estate. 40 pension fund plan sponsors, endowment fund managers, pension fund consultants, fund managers, and investment managers were asked to take part. A total of 14 participated, of which 8 were plan sponsors, three were endowment funds, and 3 were non-investors: a consultant, an investment manager, and a developer/fund manager. The 8 plan sponsors who participated were in the top 35 of Pension & Investments' Top 200 list for 2002. These funds were not selected because of their activity in IRE as in a previous study by Worzala (1994). These funds were picked because they are large investors from the world's largest economy, under the assumption they would have the most sophisticated policies and research capabilities, as well as assets large enough to allow significant allocations to IRE. A full list of participants can be seen in Table 3.1.

Participants were emailed a preliminary survey, which they were asked to fill out and send back, and completed a telephone interview. During the telephone interview, responses on the preliminary survey were discussed along with some open-ended questions. The ultimate goal of the research was to poll the actual investors, answer the three questions above, and provide results that will help explain the following:

1) Where do investors stand on the debate for and against IRE?
2) Given the investors' constraints and demands, where is IRE investment likely to head?

These questions are of interest to the IRE investment community as a whole. Consultants and advisors, as well as other investors, should be interested in what large investors are doing and thinking, and what areas of IRE are poised for growth. Policy makers, both in the US and abroad, should also be interested in IRE investments as a portion of cross-border capital flows, noting both the factors that attract institutional players to a market and the level of investment that may be attainable.

Literature Review

In the literature review portion of this paper, we determined that the previous research on IRE is mixed. Within the academic community, there is no clear consensus on IRE's performance or its importance as a part of the diversified mixed asset portfolio. This is widely agreed to be because of the lack of good data on foreign real estate markets and their performance characteristics. Consequently, different players in the industry have different opinions as to the role of IRE and what types of investments might be appropriate. Questions also remain as to whether these investors are looking for diversification, higher returns, or unique opportunities as they invest abroad.

Worzala (1994) surveyed 43 institutional investors and concluded that some were in fact active overseas, and that those investors were primarily seeking diversification, even so empirical findings on the benefits of such diversification had been inconclusive. She also determined that the investors surveyed were not very sophisticated in dealing with currency risk, and were not particularly interested in the "…potential negative impact of currency fluctuations and transaction costs." She further found that IRE investments were likely to increase in the future.

Other research efforts by Eichholtz (1996, 1998, 1999, 2001), Ziobrowski (1991, 1999), and others have helped close the gaps in understanding of private and public real estate returns, both domestic and international. They confirmed the potential role of real estate in the mixed asset portfolio, affirmed the value of securitized real estate for diversification, and helped project the true, unobserved returns of private real estate. They did not, however, provide conclusive evidence about the absolute diversification benefits of international real estate, or the superiority of IRE in providing optimal international diversification to the mixed portfolio over other international investments such as equities. Such answers may not be forthcoming until the global real estate markets provide better information about private market returns. Efforts such as the planned global property index by IPD may ultimately solve this problem. In the meantime, some industry advisors have taken different positions on the matter.

In a Pension Consulting Alliance white paper, Lietz and Faust (1998) state that IRE should offer higher risk-adjusted returns than domestic real estate to be considered by a pension fund. They also believe that due to their higher rates of growth, developing markets may be better for a strategic approach than a tactical one, and strategic investment should be focused on uncorrelated markets. Accordingly, they say investors seeking diversification should a)invest significantly, b) select countries systematically, and c)consider the difficulties of the private markets, including rebalancing the portfolio over time. However, given the conflicting research on both diversification and the quality if IRE returns, they advise against taking a strategic approach at all. They feel that securitized IRE is better for strategic 'core' investments, and that private investment in emerging markets is better for a tactical 'opportunity' approach, which would provide investors with appropriately higher returns given the risks and costs involved.

Prudential Real Estate Investors' research department has produced a series of articles on IRE. PREI strongly recommends the inclusion of more IRE than investors currently have in their real estate portfolios, up to 20-30%. Regarding the performance of private real estate in general, Prudential maintains that the body of prior research, while conflicting, indicates that IRE at least *may* provide optimal international diversification for a real estate and mixed asset portfolio, and that endorsement is strong enough to warrant significant investments. PREI definitely supports a strategic approach to IRE investing. While they have not attempted to answer the question of how much diversification an investor would (or should) get, PREI's researchers have identified strategies for investing in various risk categories of real estate in a systematic and justifiable way.

Survey Results and Analysis

The principal goal of the survey was to determine what type of investments are institutional investors making, and what do such investors hope to accomplish by investing abroad. In addition to PCA, PREI, and another industry member, eleven US institutional investors participated in the study. Eight were from the top 35 pension funds, and three were from the top 6 endowment funds. The average size of all funds was \$56.7b. While most funds reported some current level of investment in IRE, only half had invested for over five years. The success of those investments was mixed, but the majority felt that their investments had performed up to or above expectations.

Allocations to IRE were shown to be increasing over time, with most of the growth coming from funds getting into IRE who previously had no investments. Average IRE allocations (within the real estate portfolio) across pension funds grew from 2.1% five years ago to 7.2% today, to 7.5% in five years. In addition, most funds were shown to be invested below their target allocation. Those two factors, when combined, predict a very significant influx of capital into IRE. The equity invested in IRE by the 11 pension and endowments funds included in the survey alone is expected to increase from $2.47b today to $5.34b in five years. By far, the predominant vehicle used to invest this money has been commingled closed opportunity and value added funds.

Benchmarking was identified as a problem by the institutional investors surveyed. Investors relied upon return projections made by their fund managers and targeted opportunity and value added funds they felt would exceed their domestic core returns by a reasonable amount. Most investment decisions were made based on information provided by the investment fund manager, with other sources such as internal or third party research factored in.

Investors are in a wide range of countries and markets, both developed and emerging, and in almost every asset type and class. For countries, most markets with good growth prospects and without serious political or economic issues were considered suitable for investment. Mexico has been a big recipient of fund dollars due to the reforms and economic growth that came with NAFTA. Central American nations may benefit in a similar way if CAFTA is approved. The choice of which asset to invest in was generally up to the fund manager, but the investors themselves seemed to be comfortable in wide variety of products. Investors were not, however, actively dealing with currency, taxation, and a host of other issues. Again, because of the huge responsibility of the fund manager over the investments, the investors are not forced to manage these effects, and have not developed the capabilities necessary to do so.

The number one for investing internationally was returns. Many investors felt that higher risk adjusted returns could be attained by investing abroad, due to unique opportunities and inefficiency in local markets. Diversification was also mentioned as a reason to invest, but the investors were only making allocations using general experience and intuitive diversification, instead of using a more rigorous approach. This pattern suggests that the investors believed they were getting some diversification benefits, even if they could not be measured, but that diversification was not a critical factor in the investment decision. After diversification, respondents also indicated a desire to invest in growth markets, presumably in emerging economies.

For success, most funds look to invest with the best fund managers, which in some cases were not the *largest* fund managers. Investors mentioned the desire to work with talented managers who are focused on the real estate, and at least one mentioned a preference for smaller firms, claming that the larger the manager, the less focused they are on the real estate itself. Not surprisingly, finding the right fund manager was also considered the greatest challenge of investing internationally. Respondents considered the next most important resource to be an excellent local partner, even so the respondents did not work directly with these firms. Most felt that US investors cannot be competitive with local investors and need local partners to invest successfully. Ultimately, the funds surveyed said that IRE is important to their overall real estate strategy, whether for returns, diversification, or simply to 'stay in the market'. Political risk and currency risk were their top concerns when investing abroad, with political risk being the foremost concern.

The investors who took part identified several trends they saw emerging over the next five years. Many expect yield compression to take place as has happened in the US domestic market, although some mentioned that if capital flows out of US real estate into the stock market, IRE returns may stay relatively high. They also saw more investment funds on the horizon, both new funds from new entrants and also repeat funds from established players. In a very optimistic note for advocates of IRE, some investors also saw continuing global market convergence leading eventually to lower return/risk investments (such as core real estate) by pension funds. Several saw value added investment growing in the near term. The investors identified several factors that would make IRE more attractive to them, presumably helping this transition. The factors included improved transparency, continued globalization, better currency stability, and better benchmarks.

Conclusions

As described above, the academic literature on the performance and diversification benefits of (private) IRE has been mixed. As a result, it's possible to construct an argument either for or against IRE investments. Accordingly, industry members have been forced to make their own decisions regarding an IRE investment approach. Of the two industry advisors cited, PCA conservatively leans against the inclusion of (direct) IRE for strategic investment, preferring the tactical use of higher return investments in certain markets. Their recommended approach to IRE is very similar to what the funds who participated are doing today. However, while most funds are looking for diversification from IRE and believe they are getting it, they are not using systematic methods to create allocations as PCA has recommended to get optimal diversification benefits.

Acknowledging that the lack on data on IRE is troublesome., PREI advocates alternative frameworks to make systematic allocations, and thinks investors should generally include core, value added, and opportunity real estate in such allocations. Prudential suggests that costs aside, there are excellent opportunities for private real estate abroad if investors shift their thinking somewhat and consider alternative frameworks, such as theirs. While Prudential has offered some useful methods for introducing lower risk and return IRE to the real estate portfolio, they have not answered the questions posed by PCA and others of how well does IRE perform, and how much diversification does it offer?

Most likely, these questions cannot be answered without better data from the international real estate markets themselves, which would allow for more rigorous research on the diversification benefits that are available. Also, research is needed on the true costs of international investment over and above domestic investment in similar assets. While proponents and detractors of IRE investment often cite these costs either as manageable or too great to justify investment, no studies were found to provide evidence to support either position.

One thing is nearly certain- investments in IRE are going to grow over the next five years. In the survey results discussed above, average IRE allocations[3] across pension funds grew from 2.1% five years ago to 7.2% today, to 7.5% in five years, and the equity invested in IRE by the 11 pension and endowments funds included in the survey alone is expected to increase from $2.47b today to $5.34b in five years. This begs the question of how much money will flow into IRE across the industry? While this study's results cannot be considered the basis for a scientific projection of future investment, it's too tempting not to try. If similar results are found among the top 35 pension funds with an estimated $2,190b in assets, the amount of equity allocated to IRE by that group may be as much as $11.3b today and $14.4b in five years[4]. If we were to apply the same average portfolio-wide allocation to the estimated $3,993b in assets of the top 200 US pension funds, those equity figures would be an astounding $20.6b and $26.3b, respectively. When leverage is considered, the total amount invested in IRE in the future by US investors

[3] Within the real estate portfolio.

[4] Equity projections were made by applying the weighted average growth rate from footnote #2 of 4.5% to the combined assets of the top 35 and top 200 pension funds. The combined assets were grown out to 2004 and 2009, and multiplied by the projected portfolio-wide allocations of .52% for today and .53% for five years from now.

could be staggering. Due to the high amounts of leverage (65-75%) used in the investments held by just the eleven funds in the study, the value of their levered investments could rise from roughly $7b today to as much as $14.8b in five years.

There is a major problem with all these projections, however. At some point, one has to wonder if there are enough high-return funds and opportunities out there to handle these kinds of capital flows. Most likely there are not, and investors will either face yield compression or have to move into more value added and core real estate investment to meet their allocations, most likely managed under a different format from the typical closed opportunity fund. It remains to be seen what the dominant vehicle for investing in IRE in the future will be. However, responses from pension funds indicate that in order for core and value added to become more widespread, some changes must occur. Pension funds have not transitioned to core and value added because of uncertainty over the true costs of investment, uncertainty over expected returns (absolute, risk adjusted, benchmarks, etc), and as one respondent described in industry lingo, the "brain damage" associated with managing such investments. As stated before in this paper, further research on the true costs of IRE investment, expected returns (once high quality data becomes available), and implementation problems would go a long way towards encouraging systematic IRE investment.

One question of great interest is where will the money go? Based on qualitative responses solicited during the research period, there's a great deal of interest in Asia's emerging economies and Mexico, but if existing allocations are indicative of the future, Europe will receive the bulk of the investment. Most likely, investment will be directed towards markets that possess the factors identified in this study as making them more attractive to US investors. Once again, these factors included improved transparency, convergence with the global economy, better currency stability, and better benchmarks. Policy makers both in the US and abroad should consider the potential cross border capital flows of future US investments in IRE identified above. As CAFTA, the Australian Free-Trade Agreement, and other international agreements are negotiated, both foreign real estate markets and domestic pension fund beneficiaries stand to benefit from these investments. For some smaller economies with inefficient real estate markets, the benefits in the form of new development could be substantial. Another interesting topic for future study might be the effect of the EU, NAFTA, and others on global real estate investment capital flows.

Of course, the findings of this study should be considered in light of the modest number of investors who took part. At best, this research is a snapshot of several prominent pension funds' and endowment funds' current practices and the reasoning behind them in the context of the current investment and geopolitical environment. Several questions remain regarding the findings herein. Are the practices and trends identified in this paper widespread in the institutional investment community? What will happen if domestic yield compression reverses? What will happen as global economic integration effort do or do not succeed? Hopefully, academics and industry professionals will find this work interesting and helpful as IRE investments by US institutional investors grow over the coming years.

VII. APPENDIX I

Investor Survey

MIT Center for Real Estate
International Real Estate Investment Survey

I. Introduction

This is a survey of Institutional Investors and Investment Managers regarding their International Real Estate Investments. The goal of this research is to determine what the current practices of institutional investors are, what is driving those practices, and what future trends may emerge. The results of this research will be compiled in a masters thesis to be released in the fall. Please answer the following series of questions about your organization's investment practices. This survey should take approximately 1 hour.

II. Instructions

This form is a template designed to be filled in on your computer. Click on the gray fields to enter text. To skip to the next field, press tab. When you are finished, save the document and email it to mullins@mit.edu. If you have any questions, you can email or call 617-452-5109.

If you prefer, the document can be printed out and filled in by hand. You can fax the completed survey to 617-253-8074.

III. Notice of Voluntary Participation and Confidentiality

Participation in this survey is voluntary. All questions are optional and you may discontinue participation at any time. All responses will be kept confidential unless authorized by you in the following section:

May we have permission to include your name and your institution's name, in connection with the answers to questions below, in the final written report?

[ ]Yes [ ] No [ ] Case by Case [ ] Institution Only

Would you like to proceed with the survey?

[ ]Yes [ ] No

IV. Contact Information

Respondent name and title ---

Referred by ---

Investor/Fund Name ---

Address ---

Phone, Fax, Email ---

V. Background Information

Please answer the following questions as they apply to your investment fund.

1. Which category best describes your fund/organization?
    a. [ ] Insurance Company
    b. [ ] Pension fund
    c. [ ] Endowment fund
    d. [ ] Investment Manager
    e. [ ] Publicly traded investment fund (REIT)
    f. [ ] Financial institution
    g. [ ] Development or real estate management company
    h. [ ] Real estate advisory or consulting firm
    i. [ ] Other (Specify) --

2. What is the dollar value of the fund/property portfolio under management as of the end of the first quarter of 2004? If more than one fund exists, please list them separately. For funds in the process of being invested, please indicate the value of investments already made and the anticipated of the entire fund.

Fund Name	Total $$ Value	Total $$ Invested	Balance

3. If your fund is part of a larger mixed asset portfolio/fund, what is the size of the entire fund?

Fund	Value	Investments	Cash Balance

Comments:

VI. International Real Estate (IRE) Investments

For the purpose of this study, IRE investments shall be considered direct or indirect investments for which a majority of the dollar value is real estate located in a foreign country. A foreign country is one in which the investor's headquarters is not located.

4. In the past, has your fund invested in IRE?
   [ ]Yes [ ] No

5. Does your fund currently have IRE in its portfolio?
   [ ]Yes [ ] No

6. What are the short term plans for your fund's existing IRE investments, if any?
   [ ]Hold [ ] Divest

7. Is your fund actively seeking new IRE investments?
   [ ]Yes [ ] No

8. If your fund planning to invest in IRE within the next 5 years?
   [ ]Yes [ ] No

For the following questions, indicate the current level of investment, followed by the level planned over the next 5 years.

	5 Years Ago	Now	In 5 Years
9. What is your fund's Portfolio Allocation to IRE…			
% Within Fund?			
% Within RE Allocation?			
10. Total equity in IRE Investments?			
11. Total value of IRE Investments (levered)			

Comments:

The following questions pertain to international real estate only.

12. How long has your fund invested in IRE?
    [ ] 0 Yrs [ ] 1-5 Yrs [ ] 6-10 Yrs [ ] 11+ Yrs

13. What product categories do you invest in?
    a. [ ] Core
    b. [ ] Core Plus
    c. [ ] Value Added
    d. [ ] Opportunity
    e. [ ] Other (Specify)
    ----

14. What are your reasons for including or excluding categories in question 13 above?
    a. Core
    ----
    b. Core Plus
    ----
    c. Value Added
    ----
    d. Opportunity
    ----
    e. Other
    ----

15. What asset types do you invest in?
    a. [ ] Office
    b. [ ] Retail
    c. [ ] Industrial
    d. [ ] Hotel
    e. [ ] Resort
    f. [ ] Rental Housing
    g. [ ] For-Sale Housing
    h. [ ] Other (Specify) --

16. What are your reasons for including or excluding asset types in question 15 above?
    a. Office --
    b. Retail --
    c. Industrial --
    d. Hotel --
    e. Resort --
    f. Rental Hous. --
    g. For-Sale Hous. --
    h. Other --

17. What asset classes do you invest in?
    a. [ ] A
    b. [ ] B
    c. [ ] C

18. What are your reasons for including or excluding categories in question 17 above?
    a. A --
    b. B --
    c. C --

19. What investment vehicles do you use for IRE?
    a. [ ] Direct Investment
    b. [ ] Managed Single-Investor Fund
    c. [ ] Domestic Managed Commingled Open-ended Fund
    d. [ ] Domestic Managed Commingled Closed Fund
    e. [ ] Foreign Managed Commingled Open-ended Fund
    f. [ ] Foreign Managed Commingled Closed Fund
    g. [ ] Other (Specify) --

20. What are your reasons for including or excluding categories in question 20 above?
    a. Direct Invest. --
    b. Managed SIF --
    c. Domestic MCOF --
    d. Domestic MCCF --
    e. Foreign MCOF --
    f. Foreign MCCF --
    g. Other --

21. What structures (form of ownership) do you use for investing in IRE?
    a. [ ] Direct
    b. [ ] JV with Local Partner
    c. [ ] JV with Domestic Partner
    d. [ ] JV with other Institutional Investor
    e. [ ] Securitized Equity (REIT, REOC)
    f. [ ] Private Equity (REIT, REOC)
    g. [ ] Other (Specify) --

What are your reasons for including or excluding structures in question 22 above?

h. Direct --
i. JV with LP --
j. JV with DP --
k. JV with II --
l. Securitized Eq. --
m. Private Eq. --
n. Other --

22. What is your typical holding period? --

23. What is your preferred investment size?

----

24. What return benchmarks do you use?

----

25. Have your IRE investments performed as expected?
    [ ] Yes   [ ] Over   [ ] Under

26. What types of international markets do you invest in?
    [ ] Developed   [ ] Emerging

27. How does your fund decide which markets to invest in?
    a. [ ] In-house research
    b. [ ] Third Party Research
    c. [ ] Investment Advisors
    d. [ ] Local Partners
    e. [ ] Other (Specify)

    ----

28. How does your fund decide which vehicles to invest in?
    a. [ ] In-house research
    b. [ ] Third Party Research
    c. [ ] Investment Advisors
    d. [ ] Local Partners
    e. [ ] Other (Specify)

    ----

29. How does your fund decide which structures to invest in?
    a. [ ] In-house research
    b. [ ] Third Party Research
    c. [ ] Investment Advisors
    d. [ ] Local Partners
    e. [ ] Other (Specify)

    ----

30. How does your fund decide which projects to invest in?
    a. [ ] In-house research
    b. [ ] Third Party Research
    c. [ ] Investment Advisors
    d. [ ] Local Partners
    e. [ ] Other (Specify)

    ----

31. How does your fund pursue IRE investments ?
    a. [ ] Bottom Up (Investments are brought to the fund)
    b. [ ] Top Down (Fund solicits investments to fill allocations)
    c. [ ] Combination of both
    d. [ ] Other (Specify)

    ----

32. Does exchange rate risk provide diversification or increased volatility within all RE investments?
    [ ] Diversification   [ ] Volatility

33. What strategy does the fund use for dealing with exchange rate risk?
    a. [ ] None
    b. [ ] Balanced allocations
    c. [ ] Currency hedging
    d. [ ] Other (Specify)
    ----

34. How many countries/markets do you invest in?

In the following question, for each market, indicate its assigned Risk Premium (if any) and the amount of equity your Fund has invested.

35. Which Countries/Markets?	Risk Premium (%)	Amount ($)
a. Europe		
i. EU	-------------	-------------
ii. Northern Europe	-------------	-------------
iii. Eastern Europe	-------------	-------------
iv. Russia	-------------	-------------
v. Eurasia	-------------	-------------
b. Eurasia		
i. Persian gulf states	-------------	-------------
ii. Mediterranean states	-------------	-------------
c. Asia		
i. China	-------------	-------------
ii. India	-------------	-------------
iii. Hong Kong	-------------	-------------
iv. Singapore	-------------	-------------
v. South Korea	-------------	-------------
vi. Taiwan	-------------	-------------
vii. Indonesia & Malaysia	-------------	-------------
viii. Central Asia	-------------	-------------
ix. South Asia	-------------	-------------
x. Japan	-------------	-------------
d. Africa		
i. South Africa	-------------	-------------

e. North America
    i. Canada
        ------------- -------------
    ii. Mexico
        ------------- -------------
f. Central & South America
    i. Central America
        ------------- -------------
    ii. Brazil
        ------------- -------------
    iii. South America
        ------------- -------------

VII. Qualitative Assessment of International Real Estate (IRE)

36. Do you have a formal policy on IRE?
    [ ]Yes [ ] No

37. The following methods can be used to create allocations for IRE. Please rank order the methods your fund uses by importance (1 being the most valuable). Leave blank any methods NOT used by your fund.
    a. [ ] Modern Portfolio Theory (Markowitz, Sharpe, etc.)
    b. [ ] Index based such as CAPM
    c. [ ] Simple Return Correlations between international markets
    d. [ ] Research based local market projections
    e. [ ] General experience/intuitive diversification
    f. [ ] Other (Specify)
    ----

38. The following are some of the reasons for investing in IRE. Please rank order the reasons by importance (1 being the most valuable). Leave blank any reasons your fund does NOT consider an important reason to invest abroad.
    a. [ ] Higher yields
    b. [ ] Higher risk-adjusted overall returns
    c. [ ] Portfolio diversification
    d. [ ] Strong local market *current* performance (hot market)
    e. [ ] Strong local market *future* growth projections (growth economy)
    f. [ ] Strong local market currency (stable currency/monetary policy)
    g. [ ] Strong local market currency prospects (upward pressure on currency)
    h. [ ] International income/liability matching
    i. [ ] Unique development opportunities
    j. [ ] Lack of domestic opportunities
    k. [ ] Other (Specify)
    ----

39. Which of the following resources are most important for successful IRE investing? Please rank order the resources by importance (1 being the most valuable). Leave blank any resources NOT used by your fund.
    a. [ ] Dedicated internal team
    b. [ ] Experienced investment consultant
    c. [ ] Experienced investment advisor/fund manager
    d. [ ] Efficient local market (data availability, effective regulation, etc.)
    e. [ ] Inefficient local market (less competition, higher need for capital)
    f. [ ] Experienced domestic partner (developer or asset manager)
    g. [ ] Professional local partner (reliable & transparent, best practices)
    h. [ ] Well-connected local partner
    i. [ ] Experienced local partner (track record with institutional investors)
    j. [ ] Other (Specify) --

40. Which of the following are the greatest challenges to successful IRE investing? Please rank order the resources by importance (1 being the most challenging). Leave blank any challenges NOT considered important by your fund.
    a. [ ] Identifying institutional quality opportunities abroad
    b. [ ] Finding suitable local partners (development and asset management)
        i. Please rank:
            1. [ ] That are experienced (expertise on property markets)
            2. [ ] That are professional
            3. [ ] That are well-connected
    c. [ ] Finding suitable local service providers (property management, etc.)
    d. [ ] Finding experienced investment advisor/fund manager
    e. [ ] Evaluating investments (data availability, legal reviews, etc.)
    f. [ ] Taxation differences between countries
    g. [ ] Difficulty repatriating profits and capital
    h. [ ] Local regulatory environments (land use, etc.)
    i. [ ] Currency risk
    j. [ ] Illiquid local markets (disposition)
    k. [ ] Cultural differences/barriers
    l. [ ] Other (Specify) --

The following questions are open ended. Please give a judgmental response based on your fund's overall approach to IRE.

41. What factors make a country desirable for investment?

    ----

42. How important is IRE to your real estate investment strategy?

    ----

43. What do you perceive to be the greatest advantages of IRE?

    ----

44. What do you perceive to be the greatest risks of IRE?

----

45. How competitive do you believe a US investor can be compared to local investors?

----

46. How important it is to have co-investors in your IRE investments (either investment managers, other institutional investors, or local partners)?

----

47. What trends do you currently see in IRE investing? What is your impression on them? Which do you see as the future of IRE investment?

----

48. What factors would make IRE more or less attractive as an investment in the next five years?

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