REAL ESTATE PRIVATE EQUITY: AN OVERVIEW OF THE INDUSTRY AND ANALYSIS OF ITS RETURNS

By

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Stephen M. Tang

Submitted to the Department of Architecture on July 28, 2003 in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

ABSTRACT

The real estate private equity / opportunity fund sector has experienced tremendous growth as a result of regulatory and market changes. With this growth come the pains and opportunities of restructuring the capitalization of a capital-intensive industry. While the underlying assets of real estate opportunity funds are different than traditional private equity funds, many of the issues facing emerging real estate funds are similar to the issues faced by traditional private equity funds.

As the industry continues to grow, many issues facing these opportunity funds will be intensified as the early pioneer funds start to exit their investments and realize returns to the limited partners. As the data analysis in this thesis indicates, the significance of the fund performance has very little correlation to date with any specific property sector as illustrated with the low Rsquare and t-Stat statistics related to the regression analysis. For the most part, very few consistent patterns have emerged in the industry with the exception of higher volatility in smaller funds and the importance of manager selection when it comes to investing in the right fund as evidenced by the wide range of performance returns within similar initial vintage year categories.

The industry is maturing towards greater efficiency and transparency along with the broader private equity industry. It appears likely that alternative investments such as real estate opportunity funds as an investment alternative are here to stay. Not only does private equity align the interests of investor and manager but it also provides superior returns to the investor compared to the traditional fee-manager model that used to predominate property investments. The real estate industry, which represents fifteen percent of the U.S. GNP, is poised for continued growth. Moving forward, real estate private equity is well positioned to grow as well as it complements the public equity markets that help to improve the overall capital structure of the industry.

Thesis Supervisor: David Geltner Title: Professor of Real Estate Finance Chairman, Interdepartmental Degree Program in Real Estate Development

PREFACE
Introduction and Methodologies
CHAPTER ONE
History of Real Estate Private Equity Funds
Comparison of Opportunity Funds vs. REITS
CHAPTER TWO 13
Characteristics of Opportunity Fund Investing
Taxes
UBIT
Foreign Taxes
CHAPTER THREE
Transparency and Reporting
Benchmark/ Indexes
Valuation
Performance Returns
Transparency
Future Transparency Standards
CHAPTER FOUR 28
Regression Analysis and Trends with Sample Population Analysis
Analysis Sample Population
Analysis Results
Performance Based on Vintage Year of Fund
Performance Based on Size of Fund Property Type
Performance Based on Specialty Funds
CHAPTER FIVE
Alternative Real Estate Private Equity Vehicles
Secondary Funds
Real Estate Private Equity Firms
Interview Results
Overview of Real Estate PE Industry
Firm Positioning
Differences Between Real Estate PE and Traditional PE
Transparency Issues
Starting up a Fund

TABLE OF CONTENTS

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PREFACE

An enormous amount of private equity money has been raised during the past 10 years. While more than \$500 billion was raised during the period, 75% was raised in the past four years. Real estate opportunity funds have accounted for approximately 13% of the total private equity raised. Why this sudden explosion of interest and subsequent investment commitment to private equity? The main answer is return. However, if return is so important, why is there such limited information for investors within real estate private equity to determine for themselves whether this performance is comparable to other asset classes? The goal of this thesis will be to further establish the role of these funds in creating a developed market for real estate entrepreneurs looking for equity capital as well as potential shortcomings in the real estate finance industry including the complications involved in benchmarking real estate opportunity fund returns (as opposed to NCREIF) and devising standard valuation models. In addition, a closer analysis of the performance returns of the funds will be examined to determine whether there are any specific patterns that are more relevant to achieving higher returns.

RESEARCH OBJECTIVE:

The thesis objectives are as follows:

- Highlight important ways in which real estate private equity funds (opportunity funds) have changed financing patterns in the real estate industry.
- Illustrate key differences that distinguish real estate private equity from other forms of real estate investment vehicles.
- Quantitative analysis on the calculations of real estate return and how returns within private equity may be similar/ different than traditional institutional returns such as NCREIF or NAREIT.

- Examine both quantitatively and qualitatively the impact of real opportunity funds and whether there are any distinguishing patterns with respect to performance returns.
- Recommend and illustrate various frameworks in which these funds can provide greater reporting transparency to its investors.
- Deepen the market understanding for real estate opportunity funds to develop greater resiliency in the overall capital markets.

RESEARCH METHOD:

The method of analysis for this thesis will be part qualitative and part quantitative. Initial qualitative observations will be made by reading business articles, books, research papers, Internet. In addition, various surveys (approximately 10 firms) will be conducted to real estate opportunity fund managers to determine the current level of reporting and transparency as it relates to its current practices. The interviews will help identify/ confirm areas within real estate private equity that need improvement as well as circumstances that require/ necessitate private equity firms to report on a different level than traditional institutional real estate. A closer examination will also be made to identify areas where opportunity fund professionals feel that transparency and consistent reporting across the industry will be very difficult to achieve and to clarify differences that opportunity fund investors might be looking for compared to other investors within traditional investments.

Historical return benchmarks as provided by a reputable firm will be quantitatively analyzed and underlying patterns and conclusions will be made. Differences and similarities will be highlighted. Theoretical models will also be developed to show, if possible, how real estate opportunity returns from a core asset standpoint perform relative to other real estate holdings.

6

CHAPTER ONE

HISTORY OF REAL ESTATE PRIVATE EQUITY/ OPPORTUNITY FUNDS

The real estate private equity sector has experienced tremendous growth since its infancy in the late 1980s, growing from \$409 million in 1988 to approximately \$100 billion in 2002.¹ Real estate private equity funds, or opportunity funds, were raised to capitalize on the sudden unavailability of debt financing and the abundance of available product offered by motivated sellers. The sustainability of these funds are a result of the structural improvements that they bring to the real estate capital market by the alignment of interests provided by the private equity model and the focus on opportunistic and value added investment strategies.

Real estate would seemingly cater well to the LBO (leveraged buy-out) strategy as a result of its capital intensiveness and its relatively stable cash flows. However, as LBO funds emerged in the late 1970s and early 1980s they did not invest in real estate. A big reason for this is because of the availability of non-recourse debt. At the time real estate could be financed at near 100% loan-to-value and in many cases over 100%, thus rendering these pools of equity unnecessary as investors could control properties with little or no equity.

This all changed after the Tax Act of 1986, which removed the incentive that drove the glut of space brought to the market for tax shield purposes; the market recession of the late 1980s and early 1990s, which forced many borrowers into default and changed the availability of debt financing; and the influx of the motivated sellers selling quality properties at fire sale prices. A

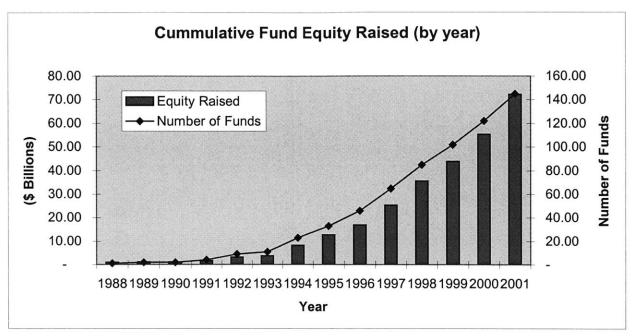
¹ Linneman, Peter and Ross, Stanley, "Real Estate Private Equity Funds," *Wharton Real Estate Review* (Spring 2002): 5-7.

major seller and a sign of the condition of the broader market is the Resolution Trust Corporation, which was created by the Federal Government, accumulated non-performing loans and lesser quality properties of insolvent financial institutions such as the many savings and loans that went bankrupt.²

The first opportunity funds to capitalize on the fundamental shift from very little or no equity investment to meaningful equity participation was the Zell-Merrill I Real Estate Opportunity Fund founded by Sam Zell, which rose \$409 million in 1988.³ When the debt capital market dried up in 1991 there were no players in the market that could come up with the equity needed to finance these large properties on the market, thus for a period of time Zell was in a market with little or no competition. Other funds entered the market, starting with Goldman Sachs which rose its \$166 million Whitehall I Fund in 1991 and its \$720 million Whitehall II Fund in 1992. The momentum took off from there as the private equity model proved successful in the real estate market and the fundamental shift away from near 100% financing seemed to be here to stay. Investment companies such as Blackstone, Apollo, Angelo Gordon, and Soros created real estate funds, as did leading investment banks such as Morgan Stanley, Lehman Brothers, and CSFB. In addition real estate-oriented fund sponsors appeared, including AEW, Colony Capital, JE Robert, Lone Star, Lubert-Adler, O'Connor, Starwood, Walton Street, and Westbrook. Since 1988, real estate private equity funds have raised approximately \$65 billion.

² Larson, Robert C. "The RTC: Dispelling the Myths," Wharton Real Estate Review (Fall 1997): 53-57.

³ Zell, Samuel, "Real Estate: Past, Present and Future," Wharton Real Estate Review (Spring 2002): 59-66.



Source: Ernst & Young

The structural changes that have improved the allocation of capital in the industry are key to the sustainability of the real estate private equity sector. Prior to the rise of opportunity funds, private investors who wanted to invest in real assets hired specialized real estate managers to invest their money via commingled and separate accounts. The manager was compensated as a percentage of assets under management, which were determined by the appraised value of the real property assets. This created a perverse incentive for managers to mark up the value of these assets and reluctantly write-down these assets in the face of economic obsolescence.

Alternatively, the opportunity fund model used today provides the bulk of the economic incentives received by the manager after the preferred return to the investor is achieved. Only a small percentage of the overall compensation is provided as a percentage of capital under management. A survey conducted by Ernst and Young published in 2002 showed that today's real estate opportunity funds provide for a 1% to 2% annual management fee, a 20% carried

interest to General Partners after achievement of a preferred return hurdle (typically 9% to 10%) and have a significant individual, pension fund, and endowment base. The General Partners and their affiliates typically commit equity side-by-side with their clients (sometimes also subordinated) 1% to 5% of the fund capital, while investment bank General Partners may contribute from 2% to 40% of invested capital. The overall debt capital structure has also shifted from around100% leverage to approximately 60% leverage.⁴

Equity as a broader category has become increasingly important in the capital structure of real estate acquisitions. In addition to the private equity sector, public equity has been a major source of financing providing over \$155 billion of market capitalization over the last decade.⁵As the real estate private equity sector matures many changes are occurring. First, funds are looking into foreign markets for investment opportunities with over 60% of the current outstanding capital earmarked for non-U.S. investment.⁶ Second, tax issues facing the industry threaten to force funds to restructure their investment vehicles. Third, the investment community is requiring more transparency and reporting standardization. Lastly, the industry as a whole is becoming more sophisticated and complex requiring many of these funds to face business transformation issues.

⁴ Reiss, Dale Anne. "Opportunistic Investing: Real Estate Private Equity Funds." Ernst & Young.

⁵ National Association of Real Estate Investment Trusts, "Annual Market Capitalization," NAREIT Web site, http://www.nareit.org/researchand-statistics/marketcap.cfm, accessed June 15, 2003.

⁶ Reiss, Dale Anne. "Opportunistic Investing: Real Estate Private Equity Funds." Ernst & Young.

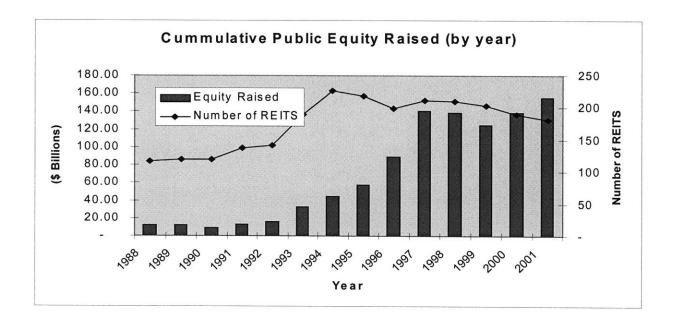
FUNDS VS. REITS

Over the past 10 years as real estate private equity has become a fixture for equity capital source, several comparisons have been made related to its correlation to REITs. There are several key differences between the two equity vehicles. The following highlights some of the differences⁷:

- REITs annual total equity return expectations (dividends plus appreciation) range from 10% to 14%, typical real estate private equity return expectations are north of 20%.
- In order to achieve higher returns, real estate private equity, by default, tends to invest in situations with relatively higher risks than REITs.
- REITs tend to own stabilized income producing properties with a long term operating focus.
 Real estate private equity seeks non-stabilized assets along with a much shorter hold time ranging from 3-5 years.
- Real estate private equity will almost always use more leverage than REITs.
- Real estate private equity is usually raised within a fund while REITs obtain cash from trading its securities within the capital markets, ultimately creating a more liquid alternative.

⁷ Linneman, Peter and Ross, Stanley, "Real Estate Private Equity Funds," *Wharton Real Estate Review* (Spring 2002): 7-9.

Consistent with the overall demand for equity in the market, REITs have also experienced similar growth as private equity funds over the same period. *Source: NAREIT*⁸



⁸ NAREIT, "Annual Market Capitalization," NAREIT Website, 2003

CHAPTER TWO

CHARACTERISTICS OF OPPORTUNITY FUND INVESTING

Investments in opportunity funds differ from investments in publicly traded common stocks or stock index funds in certain fundamental ways. Assuming no dividends, investments in publicly traded stocks and stock index funds possess two cash flows, an initial and a terminal. In addition, a readily available, liquid market continuously updates the values of these investments. Investments in private equity or opportunity funds possess certain characteristics, which can make performance comparisons with investments in publicly traded common stocks and stock index funds difficult and misleading. The following is a discussion of these characteristics.

Committed Capital vs. Invested Capital

Committing \$100 million to a private equity partnership is not the same as investing \$100 million in a private equity partnership. Capital committed to a private equity partnership is taken down on an as-needed basis as opposed to one lump sum. In most cases, a private equity fund investor will not invest an amount equal to their total commitment. This is due to the fund manager's need to leave a certain portion of committed capital unallocated for subsequent fees, expenses and "follow-on" investments. The committed versus funded concept increases the difficulty of comparing an alternative \$100 million investment in another asset class.⁹

⁹ Lerner, Josh and Hardymon, Felda, "Venture Capital and Private Equity: A casebook," Volume two, 2nd edition, 2002

Randomness of Cash Flows

Private equity cash flows, both inflows and outflows, are somewhat unpredictable with respect to both timing and magnitude. Capital calls aggregating a third or a half of the investor's commitment may occur in the first year of a fund's life or perhaps less capital may be called. Likewise, a cash distribution representing a sizeable portion of the fund's total distributions may occur early on in the fund's life or no distributions may occur until the fifth year.

Pre-Investment and Re-Investment Requirements and Risks

A by-product of a private equity fund's cash flow randomness is pre-investment and reinvestment requirements and risks. This is true for both cash inflows and outflows. From a cash inflow perspective, a large distribution may be returned to the investor regardless of the investor's ability to reinvest these proceeds in an asset with similar return potential. From a cash outflow perspective, a large capital call may be made by the fund at any time, requiring the investor to fund a large cash outflow. The possibility of having to fund large outflows means the investors may have to keep sufficient funds in relatively safe, liquid assets. Such assets do not offer high-expected rates of return.¹⁰ The lower pre-investment and re-investment returns caused by the randomness of private equity fund cash flows are typically not addressed when evaluating the overall return generated from an investment in a real estate private equity/ opportunity fund.

Taxes

As real estate opportunity funds mature so are the issues surrounding its taxation and deal structure. The two most predominant tax concerns are unrelated business income tax (UBIT)

¹⁰ Lake, Ronald, "Private Equity and Venture Capital – A guide for Investors and Practitioners," 1st edition, 2000

and foreign taxes. These issues affect the tax-exempt investors in these funds, which provide the bulk of the committed capital.

UBIT

A tax-exempt organization is not taxed on its income from an activity that is substantially related to the charitable, educational or other purpose that is the basis for the organization's exemption. Such income is exempt even if the activity is a trade or business. However, if the exempt organization regularly carries on a trade or business that is not substantially related to its exempt purpose, except that it provides funds to carry out that purpose, the organization is subject to tax on its income from that unrelated trade or business.¹¹

The tax applies to Section 501(c) companies – charitable, religious, scientific, and other organizations as well as Section 401(a) companies – employees' trusts forming part of pension, profit-sharing, and stock bonus plans. ¹²

If unrelated business taxable income (UBTI) is accrued then it is taxable at corporate rates to determine the UBIT. There are exclusions from the unrelated business rule such as dividends, interest, annuities, other investment income, royalties, rents, income from research, and gains and losses from disposition from property. These exemptions would ordinarily exempt real estate investment activities from UBIT.

¹¹ Reis, Dale Anne "Opportunistic Investing: Real Estate Private Equity Funds," Page 3-6Ernst & Young 2001 ¹² Linneman, Peter and Ross, Stanley, "Real Estate Private Equity Funds," *Wharton Real Estate Review* (Spring 2002): 5-7.

However, the rule states that investment income that would otherwise be excluded from an exempt organization's unrelated business taxable income must be included to the extent it is derived from debt-financed property. The amount of income is proportionate to the debt on the property. Thus, seeing that the industry is roughly 60% levered, this poses a major tax issue.

While tax litigation is still unclear there are two possible ways to avoid UBIT: 1) avoid real estate investment activity to be considered an unrelated trade or business or 2) finance the deal entirely with equity.

An unrelated trade or business has three components: 1) it must be a trade or business, 2) it must be regularly carried on, and 3) it must not be substantially related. When referring to holders of real estate assets the distinction is between dealers and investors. Dealers will be taxed while investors will be exempted.

Thus, funds will structure deals to fulfill the ill-defined criteria to classify themselves as investors rather than dealers. The general factors used to distinguish dealers from investors are: 1) number, frequency and continuity of sales, 2) substantiality of sales, 3) purpose for acquiring and holding property, 4) duration of ownership, 5) development activity, 6) sales effort, 7) taxpayer's statements, and 8) use of sale proceeds.¹³

¹³ Linneman, Peter and Ross, Stanley, "Real Estate Private Equity Funds," *Wharton Real Estate Review* (Spring 2002): 5-7.

Alternatively, the firm could simply not use debt to finance the deal and thus rely on the real estate exemption to avoid UBIT. However, this alternative dramatically lowers the returns of the fund without a comparable drop in the risk.

89% of the funds surveyed by Ernst and Young allow UBIT to be incurred.¹⁴ Many funds interviewed and in the E&Y report stated that they take "reasonable efforts" to avoid UBIT, but are allowed to incur UBIT is it occurs if the deal warrants. Some general partners are required to compensate the limited partners for UBIT.

One of the interviewees of this thesis stated that his fund simply sees UBIT as just another cost of doing business, indeed much like maintenance and capital improvements. While the firm tries to minimize it, he feels that it has had the effect of scaring away other investors from deals that provide a higher after-tax return than alternative UBIT-free deals.

Foreign Tax

As funds become more international, many are gaining approvals to invest a portion of their funds in oversea markets. In addition, as limited partners become more comfortable with this trend, many of them are allowing funds to set up tax-efficient structures to minimize any direct foreign taxes and withholding.

Indeed dealing with foreign tax is like hitting a moving target and it requires more sophisticated control and reporting infrastructures to comply with the constantly changing tax regulation.

¹⁴ Reiss, Dale Anne. "Opportunistic Investing: Real Estate Private Equity Funds." Ernst & Young. P. 9.

CHAPTER THREE

TRANSPARENCEY AND REPORTING

In light of the recent corporate scandals and reporting issues faced within the business community and capital markets, much discussion has occurred recently related to how real estate opportunity funds report its returns and valuation to its investors. Since the majority of the established funds began in the early 1990's, many of the initial returns on their liquidated assets have benefited from the excellent buying opportunities that existed during the period. However, since the market has declined in recent years, relatively few of the assets held by the funds have been liquidated. This makes relative performance of these funds difficult to monitor.

Benchmarks/Indexes

Since real estate is relatively illiquid as an asset, some investors have been asking whether there is a meaningful benchmark for real estate opportunity funds. Several fundamental factors about real estate private equity makes a single benchmark very difficult to establish. Almost every fund in existence today has different fundamental objectives. Some funds might emphasize office investments, other industrial or retail or other product types. Funds invest at different times, markets, leverage requirements and different risks. Since their time horizons and equity investments differ, their internal rates of return (IRR) may not be comparable.

Within traditional institutional real estate investments, several indexes such as NCREIF (National Corporate Real Estate Index Fund) and NAREIT (National Association of Real Estate Investment Trusts) are widely used by investment managers to gauge the performance of their portfolios. Recent discussions have brought to issues whether these indexes can be used as useful real estate opportunity fund benchmarks. Unfortunately at this time, the answer appears to be no. NCREIF typically reports all returns unleveraged on stabilized U.S. assets. The majority of real estate opportunity fund properties are heavily leveraged and not stabilized. Many funds also have significant exposure to non-US assets and are engaged in activities such as development, redevelopment, and loan restructuring strategies that are very different than the set of risks reflected in properties in the NCREIF index.¹⁵

Similar issues occur when comparing returns to NAREIT. Returns usually captures changes in real estate stock liquidity. US assets are fundamentally very different compared to the portfolios of many internationally focused funds. As with NCREIF, the high leverage ratio used with real estate private equity funds assets relative to REITS make performance difficult to compare.

The nature of a real estate opportunity fund is to achieve a return that is well in excess of those normally associated with stabilized commercial real estate, typically in the range of 18% to 20%. This fundamental difference makes benchmarks that utilize traditional real estate returns almost inconsequential. A standard benchmark can also pose a problem due to the fact that most opportunity funds seek appreciation through large capital outlay in the early years. This will cause low and even negative returns in the early years. Although negative returns early on are key strategies for many value-enhancing funds, comparing returns across funds is complicated, as one fund may be at the mature part of its life cycle, while another may be in the early phase of its life cycle. As a result, attempts to benchmark returns can be very difficult and will many times be comparing apples to oranges.

19

¹⁵ Hudson-Wilson, Susan, "Modern Real Estate Portfolio Management," 1st edition, 2000

If benchmarking is very difficult within the real estate opportunity fund arena, are there any plausible methodologies to evaluate the performance of these funds? It all comes down to investor satisfaction. The most appropriate benchmark for these funds is to compare whether they are performing (returns) according to their original promises and goals while still utilizing the same strategies and leverage that was agreed upon. In other words, the real estate opportunity fund sector needs to establish some standards in terms of consistent and detailed reporting of information to investors. Real estate opportunity funds need to establish and employ transparent and consistent reporting so investors evaluate their issues from a consistent and uniform standard. One useful suggestion is to group all funds based on the vintage year of its initial investment in the fund.

Valuation

Much debate has recently been made concerning valuation. Currently, there is still a wider disparity between how funds report performance and valuation. A recent Ernst and Young survey reported of the 48 respondents representing \$72 billion in equity raised over the last decade, 11 indicated that they report their financial statements using historical cost accounting; four use income tax basis; and the rest provided fair value financial statements. Some funds believed that the financial statements should be shown on a historical cost GAAP basis only and a supplemental calculation done for returns and benchmarking. Given the nature of real estate opportunity funds and their different objectives as described in the previous section, there is really no single valuation methodology for every investment type.¹⁶ Some funds use discounted cash flows while others obtain third-party appraisals. Another valuation policy that has been adopted by several funds involve the same policies used by other types of private equity funds

¹⁶ Reis, Dale Anne "Opportunistic Investing: Real Estate Private Equity Funds," Ernst & Young Page 7-9 2001

including venture capital and buyout funds, which present their financial statements on a fair basis as required by the AICPA Audit and Accounting Guide for Audits of Investment Companies Guide.¹⁷

Many of the real estate opportunity funds establish value on an "as-is" basis. Their valuation will reflect the condition and status of the property as of a specified date, taking into consideration any upside potential due to lease-up, renovation, construction completion, etc. as well as recognizing the risks associated with the value-added activities. Because many funds due not know the exact valuation of their investment at any given point in the hold period, real estate funds tend to state the fair value of such investments at or approximately at cost, until a realization event occurs or is imminent.¹⁸

Performance Returns

One of the biggest attractions to investing in real estate opportunity funds is the expectation for high returns. However, one major caveat to any type of performance return analysis on real estate opportunity funds is the acknowledgement of the relative nascent stage of all the funds. Investments in opportunity funds and the investments made by these funds are generally illiquid investments. Since real estate opportunity funds did not establish a true market until the early 1990's, many of the funds have not liquidated or placed all of their assets in service. As a result, calculating the returns on these funds ultimately requires some educated assumptions. Although current market values for individual private equity investments can be estimated using public and

¹⁷ Reis, Dale Anne "Opportunistic Investing: Real Estate Private Equity Funds," Ernst & Young Page 7-9 2001

¹⁸ Linneman, Peter and Ross, Stanley, "Real Estate Private Equity Funds," *Wharton Real Estate Review* (Spring 2002).

private market comparable data, these estimates are clearly not as accurate as actual realizations. The accuracy of a fund performance measurement, using any methodology, is inversely proportionate to the magnitude of market value estimation used in determining the total value generated by the fund.

With that said, several methods exist today by which opportunity fund performance can be analyzed. Three of the most common methods are the multiple of investment methodology ("Cash Distribution"), time-weighted return ("TWR") and the internal rate of return ("IRR") approach.¹⁹ Although each has its own merits, performance results could vary widely depending upon which approach is used.

In general, the Cash Distribution methodology is the simplest technique. This measurement is calculated by dividing total cash inflows (returns of capital, income and capital gains) by total cash outflows (capital calls for investments, fees and expenses). The Cash Distribution methodology does not take into account the time value of money, but rather states the nominal value of cash inflows or investment returns as multiple of the total cash outflows.

Time value returns represent what its name implies. Returns are calculated not only by cash inflows and outflows, but also the timing of cash inflow/outflow emphasizing specific weight. Returns are typically calculated on a quarterly or monthly basis. Since timing of returns is the crux of the TWR methodology, valuation practices vary significantly across funds. Some general partners value the entire portfolio at cost. Others mark some or their entire portfolio to

¹⁹ Lietz, Nori Gerardo, Dewey, David and Chan, Denise, "Real Estate Opportunity Funds: The numbers Behind the Story, Pension Consulting Alliance, Inc. April 2001

market. Another variation is to report a "market value" at the end of the period using a terminal value based upon the projected sales price of the investments, not the then current market value. Since the nature of real estate opportunity funds requires assets to typically be purchased at discounts with value creation opportunities in the future, initial cash flows during the early years will be naturally skewed negative thus limiting any conclusions that could be drawn based on reported TWR results.²⁰

Calculating the IRR of a real estate opportunity fund also has its challenges but provides the most relevant results due to the high imbalance of cash returns during the early stages of a property acquisition or fund. The IRR should be calculated using actual cash distributed to the investors over time to calculate the IRR. In essence, returns are calculated based on what the investor puts into the fund and what the investor receives over a specified time period, usually deemed over the pre-determined life of the fund. Although the timing of when assets are purchased and at what price is relatively easy to calculate and monitor, sales price and exit timing is a whole other story. General partners at opportunity funds tend to report both proforma IRR for the partnership through liquidation and interim IRR calculations to their investors. Interim IRR reflect the fact that not all assets have been liquidated and that the reversion value of the remaining assets will have an assumed terminal value at the end of the calculation period.²¹

²⁰ Lietz, Nori Gerardo, Dewey, David and Chan, Denise, "Real Estate Opportunity Funds: The numbers Behind the Story, Pension Consulting Alliance, Inc. April 2001

²¹ Lietz, Nori Gerardo, Dewey, David and Chan, Denise, "Real Estate Opportunity Funds: The numbers Behind the Story, Pension Consulting Alliance, Inc. April 2001

Transparency

Financial reporting by the preponderance of the opportunity funds is generally opaque at the partnership level. This is particular the case with regard to the disclosure of investment level returns, leverage ratios, and financial structures with local joint venture partners. The lack of transparency sometimes makes it difficult for the investor who faces the possibility of downside risk. Some potential pitfalls include the inability to quantify actual risks associated with investments and calculating the return dilution they have incurred as a result of investing via local partners. Other issues include calculating the gross return at the investment level because joint venture partner costs are typically netted out before reporting partnership results and determining an accurate loan to value or loan to cost ratio for investments.²²

The following provides an example illustrating some of the transparency issues investors might encounter from partnership report: Assume an opportunity fund raises \$500M from investors and obtains third party debt both in terms of a credit facility and permanent financing on individual investments. Assume the GP reports aggregate loan-to-value or loan-to-cost data at the partnership level as 50%. The partnership's capital at that date would look as follows²³:

\$500M Partnership (invested equity or "cost" basis)

\$300M Credit Facility (Mezz Debt)

\$200M Permanent Financing

\$1,000M Total Capitalization

²² Lietz, Nori Gerardo, Dewey, David and Chan, Denise, "Real Estate Opportunity Funds: The numbers Behind the Story, Pension Consulting Alliance, Inc. April 2001

²³ Lietz, Nori Gerardo, Dewey, David and Chan, Denise, "Real Estate Opportunity Funds: The numbers Behind the Story, Pension Consulting Alliance, Inc. April 2001

Partnership Level Balance Sheet is presented as:

Assets	\$1,000M (Equity method of accounting)
Liabilities	<u>(\$500M)</u>
Equity	\$500M
Loan to Value	e <u>500</u> =50%
	1,000

Assume there is additional debt at the investment level aggregating and additional 40%. The investment level Balance Sheet would look as follows:

Assets	\$1,666M (Equity method of accounting)
Liabilities	<u>(\$666M)</u>
Equity	\$1,000M
Loan to Value	<u>666</u> =40%
	1,666

Therefore the Partnership Level Balance Sheet (inclusive of gross assets and debt) would reflect the debt at the partnership level as well as the debt at the investment level and would look as follows:

Assets	\$1,666M (Equity method of accounting)
Liabilities	<u>(\$1,166M)</u>
Equity	\$500M
Loan to Value	e <u>1,166</u> =70%
	1,666

The majority of reporting practices do not include the debt placed on individual assets by joint venture or operating partners. If the investment is leveraged 40% at the investment (not

partnership) level, in <u>addition</u> to the partnership level debt, the more accurate total loan to value ratio of the partnership is 70%, not 50%. An investor should therefore expect higher return from this partnership than one with a lower leverage ratio.

Potential Future Transparency Standards

So what can investors expect going forward? The wide variation in reporting clearly demonstrates a need for greater transparency. Even though there might not be an exact index for real estate opportunity funds due to the unique characteristics of each fund, certain standards can still be established. The following list provides some suggestions to standardize the reporting²⁴:

- Detailed quarterly and annual overviews of investment activity and fund performance in terms of progress on the particular properties and changes in status from period to period.
- Include commentary on major actions, events, and conditions that have changed since the previous overview.
- In each quarterly and annual review, outline the activity and performance of each fund investment compared with the strategy and the underwritten IRR.
- Prepare a special event report-similar to and 8K for public companies- reporting unusual events as they occur along with quarterly and annual summaries of cash inflows and outflows.
- Provide consistent updates as to all activities related to debt or leveraged components of the investments inclusive of underlying ventures in partnerships and compliance with underlying loan provisions and covenants.

²⁴ Linneman, Peter and Ross, Stanley, "Real Estate Private Equity Funds," *Wharton Real Estate Review* (Spring 2002): 13-16.

- Group all reports on the performance of the fund assets according to the following categories: assets sold; stabilized assets that are ahead of acquisition underwriting; stabilized assets on target with acquisition underwriting; stabilized assets that are below acquisition underwriting; and non-stabilized assets.
- In terms of each group of assets, a standard should be set by including, at a minimum, the asset name, date purchased; cost; equity invested; reserves; debt level; ownership percentage; NOI (when relevant); current value (when relevant)-assuming full stabilization; IRR (when relevant); and equity multiple (when relevant).

CHAPTER FOUR

Regression Analysis and Trends with Sample Population Analysis

Thus far the thesis has examined relatively theoretical presentations concerning the premise and platform of real estate opportunity funds. The purpose of this section is to analyze quantitatively the actual performance results of over 60 real estate opportunity funds. The fundamental premise behind this analysis is to compare the stated Net IRR returns provided by the opportunity funds (verified through independent bank records) in comparison to its peer group via a variety of benchmarks including size of fund and property type differences to determine if any particular patterns arise from these characteristics. Since most fund managers report returns to investors in the form of IRR, it appears relevant to do the same in this analysis.

As mentioned earlier, calculating IRR on opportunity funds is somewhat of a daunting task with key assumptions necessary to generate a return. Some funds have reported returns based upon the cash distributed through the calculation data and use the reported market value of the remaining investments as the terminal value at that date to create the "hypothetical" since inception IRR. Other variations of reporting include determining market value at the calculation date by utilizing a discounted cash flow analysis and market capitalization rates, projecting terminal value for the investments based on the assets ultimate sale projection price as the terminal for interim calculation vs. the true value of the assets at the time of calculation and reporting IRRs at the investment level exclusive of fees and expenses instead of including all relevant fees and expenses.

Analysis Sample Population

To generate the most accurate performance analysis, a comprehensive sample population of opportunity fund cash flows, both inflow and outflow was assembled to breakdown the performance results. The cash flows comprising the population sample represent the dollars invested in and returned by a real estate opportunity fund and are after deduction of all fees, expenses and carried interests. Cash outflows represent capital calls for the funding of the fund's investments and for fees and expenses. Cash inflows represent returns of capital, income and capital gains generated by the fund's investments. In addition to the cash outflows and cash inflows for each fund, an estimation of the fund's current market value is used as the terminal value in the instances where a fund is not fully realized and distributed. If a fund is fully realized and distributed, its terminal value is zero.

A major institutional investment consulting firm provided the sample population cash flows. In total, over 100 real estate opportunity funds were examined, however only 65 funds provided complete information on all the required data cells including vintage year, size, property allocation and investment amount. Due to strict confidentiality guidelines, no specific fund or performance returns are included in this thesis. Only the aggregate analysis results are presented. As a rule of thumb, the author eliminated the highest and lowest fund return from the population analysis. Several of the funds were created and managed by the same fund manager. The first sample population cash flow occurred in 1991 and the last cash flow occurred in 2001. The average length of time between a sample population fund's first cash flow and its last cash flow to date is 4.8 years. As part of the analysis, the sample population is broken into two categories: 1.) Size of Fund and 2.) Property Sector based on the following vintage year cohort of funds:

a.) 1991-1992 b.) 1993-1994 c.) 1995-1996 d.) 1997-1998 e.) 1999-2000 f.) 2001.
The vintage year cohort categories were established to provide a more accurate benchmark of funds within a given time period.

Size of funds represents total dollar commitment by investors toward respective fund. The following provides a breakdown of the fund size category: a.) \$0 to \$100M b.) \$100M to \$250M c.) \$250M to \$500M d.) \$500M to \$750M e.) \$750M to \$1B and f.) \$1B to \$2.5B.

Within each fund, a property sector regression breakout was also examined to determine if any particular property sector outperformed others within its vintage year cohort of funds. The specific property categories include: office, industrial, retail, multi-family, single-family, land, assisted living, hotels, telecom/internet/, resort/golf course/casino, non-performing loans (npl) and performing loans (pl).

Analysis Results

The sample population was analyzed in total and also by the two sub-population, property sector and size of funds. As mentioned previously, this distinction was made in an attempt to separate and identify any performance differences between funds that are weighted heavier in certain property sectors and the relative difference resulting in performance of larger funds (in terms of dollars committed). Both of the sub-population was compared to the median IRR return of the specific fund's initial vintage year category cohort of funds to determine if a fund out-performed or under-performed its peers. The reason for the various sub-classification based on vintage year of cohorts is to separate funds whose performance measurement may be significantly affected by an estimated terminal value from those that have had a longer period of time to generate actual market realizations. Table 1 highlights the overall sample population's return statistics to illustrate the distribution of funds by general relative fund performance (Net IRR) as an overall group within its vintage year category fund cohorts.

Table 1²⁵

Vintage Year Cohort Net IRR Returns							
Amount	% of Total	Median Net IRR					
110							
3	2.7%	18.3%					
9	8.2%	17.2%					
25	22.7%	17.1%					
35	31.8%	11.6%					
30	27.3%	6.9%					
8	7.3%	23.1%					
	<u>Amount</u> 110 3 9 25 35 30	Amount% of Total11032.7%98.2%2522.7%3531.8%3027.3%					

From a pure IRR standpoint, the annual aggregate net IRR generated by the cumulative opportunity fund cash flows sample population was 21.8%, higher than any single vintage year category of funds and excluding any comparison to the each fund category median vintage year cohort return. Not too surprisingly, when the funds were grouped by their vintage year cohorts, the median net IRR decreases through every vintage year cohort category until 2001. The

²⁵ Source: Pension Consulting Alliance, Inc. 2003

decrease in returns can partially be explained by the inherent nature of opportunity funds in acquiring properties that are in need of early renovation or lease-up requirements prior to any substantial positive cash flows. As the vintage year increases, less time is allocated to the fund's ability to reach stabilized property values. 2001 sample population is a bit of an anomaly with its high returns (>23%). One explanation could be since the fund is so new, many assumptions were made in determining terminal value of the properties within the fund. Since the properties may have been purchased at big discounts, fund managers may have submitted relative terminal values bases on future anticipation of market value vs. true current market value.

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Net IRR Max/Med/Min Analysis								
Net IRR	1991-1992	1993-1994	1995-1996	1997-1998	1999-2000	2001		
Maximum	5.7%	25.4%	9.3%	15.8%	23.2%	32.0%		
Median	18.3%	17.2%	17.1%	11.6%	6.9%	23.1%		
Minimum	-2.7%	-16.7%	-17.6%	-11.5%	-65.1%	-24.7%		
* note: max/n	nin figures repres	sent premium ab	ove or below m	edian				

Exhibit 1 attempts to highlight the large range of performance returns within a vintage year category. The data point points in vintage years 1999-2000 highlights this fact the best. The maximum stated net IRR premium over the mean was 23.2% while the minimum return under the mean was a negative 65.1%. Granted the majority of funds in the 1999-2000 vintage years have not liquidated the bulk of their asset positions, these results reiterate the fact that not all funds perform up to par an many times, a couple individual funds overshadow and imbalances

the returns projected of an overall fund category. Again, as stated earlier, fund manager selections plays a key role in these results as well.

Another observation made from the population sample was the median net IRR from the funds pre-1996. Although there were several funds that dragged the median lower, overall, many of the funds performed adequately to its stated performance objectives to investors. Two opinions can be rendered from this. First, higher returns in the early vintage years funds could represent that most of these opportunity funds needs the majority of their fund life (avg. 8-10 years) to reach the stated performance results. Second, real estate opportunity funds are no different than any other investment vehicle such as stocks or traditional private equity when it comes to market volatility effecting returns. When a particular market segment is down, all performance result on average will also be down. Obviously, as shown in Exhibit 1, certain funds and fund managers will always be able to outperform the market.

Table 2

Range of Net IRR Performance Returns by Fund Size									
\$0 to \$250M	\$250M to \$500M	\$500M to \$750M	\$750M to \$1B	\$1B to \$1.5B	\$1.5B to \$2.5B				
32.0%	25.4%	21.8%	11.2%	3.4%	12.1%				
2.2%	0.0%	-1.9%	1.7%	2.7%	1.4%				
-65.5%	-7.6%	-6.0%	-0.3%	-3.9%	-1.8%				
-97.4%	-33.0%	-27.9%	-11.5%	-7.3%	-13.9%				
	32.0% 2.2% -65.5%	\$0 to \$250M \$250M to \$500M 32.0% 25.4% 2.2% 0.0% -65.5% -7.6%	\$0 to \$250M \$250M to \$500M \$500M to \$750M 32.0% 25.4% 21.8% 2.2% 0.0% -1.9% -65.5% -7.6% -6.0%	\$0 to \$250M \$250M to \$500M \$500M to \$750M \$750M to \$1B 32.0% 25.4% 21.8% 11.2% 2.2% 0.0% -1.9% 1.7% -65.5% -7.6% -6.0% -0.3%	\$0 to \$250M \$250M to \$500M \$500M to \$750M \$750M to \$1B \$1B to \$1.5B 32.0% 25.4% 21.8% 11.2% 3.4% 2.2% 0.0% -1.9% 1.7% 2.7% -65.5% -7.6% -6.0% -0.3% -3.9%				

Table 2.1

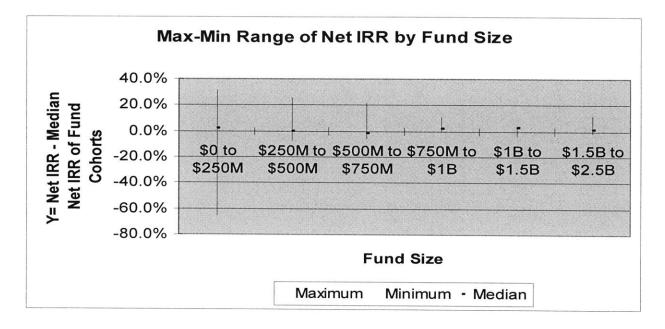


Table 2 and 2.1 are two charts that highlight the results of the sample population analysis on an aggregate basis presenting the net performance return of each fund, represented by the y-axis and calculated using the aggregate net IRR of each individual fund minus the median IRR of the fund's vintage year cohort of funds (as described in an earlier section) to reach the IRR differential of each fund. The size of each fund relative to the rest of the fund population sample is represented on the X-axis. The 64 fund sample population produced over \$27.8 billion in total cash outflows over its 11.5 year life. The majority of the funds averaged around the \$250M to \$1 billion range. The lowest returns were generated by some of the smallest funds but within the same fund category also contributed to some of the highest returns as well. The larger funds had a mix bag of results from 0% returns to approximately 18%. Please note that the returns in table 2 are net IRR of the fund minus the median IRR of the fund cohorts by vintage year category. In other words, the returns represent the premium above or below the median of funds in the same years.

34

Each of the 65 sample population funds represents one data point. Tables 2 and 2.1 illustrate two interesting occurrences. First, the tables illustrate how many of the top performing funds categorized by respective vintage year cohorts do not always represent some of the larger size funds. The data points in the maximum and median return category based on fund size represent these occurrences. Conversely, based on the same tables, the majority of the larger funds do not seem to produce many negative performance results. Second, the tables illustrate that as the fund size increases the volatility of the performance returns diminishes. As represented in the maxmin range of each of the fund size category, the range steadily decreases as the fund size increases. Looking at the analysis results on a property sector and fund by fund basis yields some additional conclusions.

Exhibit 5 summarizes the dominant alternative indications bases on running a regression analysis on the overall sample population sub-divided into property sector. Based on an insignificant R-square and T-stat variables summarized across all 65 funds of 8.6% and approx. |.03| t-Stat significance, respectively, the results show that there is relatively no correlation between the fund mangers choosing between the various property sectors and performance. This could be a function of the inherent nature of opportunity funds allocating properties in expectation of high returns regardless of property type.

Over 75% of the sample population funds (49 funds) contained a variety of property types that made up the fund. Approximately 25% of the funds (16 funds) contained a single asset type that made up more than 75% of the fund portfolio. This statistic also might play a role in the relatively zero correlation result between fund and property type.

35

EXHIBIT 5

SUMMARY OUTPUT

Regression Statistics							
Multiple R	0.293459245						
R Square	0.086118329						
Adjusted R Squar	-0.218508895						
Standard Error	1.503428992						
Observations	65						

ANOVA

	df	SS	MS	F	Significance F
Regression	16	10.22380845	0.638988028	0.282700697	0.996085852
Residual	48	108.4943392	2.260298734		
Total	64	118.7181477			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	-2.425727063	57.02117345	-0.04254081	0.966244048	-117.0744132	112.222959	-117.0744132	112.222959
Office	3.476409856	57.02367421	0.060964326	0.951640756	-111.1773043	118.1301241	-111.1773043	118.130124
Senior Housing	2.014061599	57.19556189	0.035213599	0.972055453	-112.9852557	117.0133789	-112.9852557	117.013379
Multi-Family	2.639274603	57.13054529	0.046197259	0.963344697	-112.2293182	117.5078674	-112.2293182	117.507867
Residential	2.861812352	58.47742339	0.048938756	0.961171174	-114.7148588	120.4384835	-114.7148588	120.438483
Hotel	1.495582791	57.3368702	0.026084137	0.979298373	-113.7878538	116.7790194	-113.7878538	116.779019
Retail	0.00647761	56.94655373	0.000113749	0.999909713	-114.4921756	114.5051308	-114.4921756	114.505131
Land	1.739373812	57.11268319	0.030455123	0.975830364	-113.0933048	116.5720525	-113.0933048	116.572052
Industrial	2.205437747	57.00240019	0.038690261	0.969297811	-112.4055022	116.8163777	-112.4055022	116.816378
Golf	2.261497475	56.74167297	0.039856024	0.968373227	-111.8252156	116.3482105	-111.8252156	116.348211
Internet/Telecom	-0.954841674	56.38582065	-0.01693407	0.986559403	-114.3260661	112.4163827	-114.3260661	112.416383
Perform. Loan	1.778027111	57.00879933	0.031188643	0.975248422	-112.8457791	116.4018334	-112.8457791	116.401833
NPL	2.641358737	57.04355405	0.046304246	0.96325987	-112.0523265	117.335044	-112.0523265	117.335044
Specialty	2.413506193	57.03782843	0.042314132	0.966423809	-112.268667	117.0956794	-112.268667	117.095679
REITS	2.511129409	57.08767573	0.043987242	0.965097056	-112.2712684	117.2935272	-112.2712684	117.293527
CMBS	1.472500186	55.51968129	0.02652213	0.978950844	-110.1572353	113.1022357	-110.1572353	113.102236
Self-Storage	3.531200881	57.03048471	0.061917778	0.95088542	-111.1362067	118.1986085	-111.1362067	118.198609

Based on the same population data sample, a further analysis was completed to determine any patterns that occur when separating out the funds that specialized in a particular asset class versus funds that did not specialize. For this analysis, any fund that contained more than 75% of a single asset class was categorized as a specialized fund. In addition, vintage year cohort category years were determined by having at least 4 funds in each vintage category. Three vintage categories were analyzed: 1.) Pre-1997 2.) 1997-1998 and 3.) 1999-2001. Table 3 highlights the results of this analysis.

	Net IRR Perfo	rmance of Speciali	zed vs. Non Sp	ecialized Funds by	Vintage Year (Cohorts	
All Types	Pi	·e-1997	1997-1998		1999-2001		
	Specialized	Non-Specialized	Specialized	Non-Specialized	Specialized	Non-Specialized	
Maximum	1.2%	25.5%	3.5%	13.5%	29.6%	46.0%	
Median	21.6%	17.1%	23.9%	11.3%	-12.1%	9.1%	
Minimum	-5.9%	-17.6%	-1.1%	-11.2%	-46.0%	-34.9%	
* note: max/min figures represent premium above or below median							

The phrase, "past performance is not indicative of future returns" is very applicable in this analysis. From the pre-1997 and 1997-1998 fund category, specialized funds performed very well with a mean exceeding over 21% during these two periods as compared with non-specialized funds, which yielded approximately 14% over the same two periods. In addition, even the worst performing funds in the specialized sector during this period under-performed the mean by only –5.9% and 1.1%, respectively. Perhaps the strong performance returns of specialized funds in the prior years resulted in the increase in specialized funds from the years 1999-2001. The performance result of specialized funds in 1999-2001 decreased significantly from prior cohort category years with a mean of -12.1%, over a 32% decrease in returns. Granted many of the funds in the 1999-2001 category have not fully liquidated and there remains a possibility that some of the funds will rebound, however there is enough evidence to indicate that investors should do much more in selecting a fund than just reviewing past performance history.

Table 3

To breakdown the data one more time within the specialized category, which consisted of 16 funds, Table 4 illustrates that funds invested primarily in office significantly outperformed those funds invested in non-office assets, including performing and non-performing loans and non-traditional asset classes such as storage and senior housing. However, it is also important to note that similar to other investment vehicles specializing in a particular sector, volatility remains high as evidenced by one of the funds in the office sector under-performing the median by over 56.3%.

Table 4

Net IRR of Office Specialized Funds vs. Non-Office and Non-Specialized						
All Years	Office	Non-Office	Non-Specialized			
Maximum	6.0%	18.8%	43.2%			
Median	21.4%	-1.3%	11.8%			
Minimum	-56.3%	-56.9%	-37.6%			
* note: max/min figures represent premium above or below median						

CHAPTER FIVE

ALTERNATIVE REAL ESTATE PRIVATE EQUITY VEHICLES

With real estate opportunity funds starting to play more of role in the overall real estate investment arena, several investment alternatives have recently started to emerge as separate outlet for investors wanting to participate in the real estate opportunity funds. Similar to what occurred in traditional private equity, real estate opportunity funds recently began trading in investment vehicles such as secondary funds.

Secondary Market For Real Estate Private Equity/ Opportunity Funds

The growth in secondary investment opportunities is mainly a function of two factors: (i) the overall growth in the private equity market and (ii) increasing turnover rates. From 1996 through 2002, commitments to traditional private equity have increased significantly, with over \$608 billion of capital committed to newly formed private equity funds in the US.²⁶ Simultaneously, certain investors have become increasingly proactive in managing their private equity portfolios, choosing to sell interests for asset allocation, risk management, cash flow or other strategic reasons. Recent increased market volatility, regulatory changes such as capital reserve requirements for financial institutions and consolidation in the financial sector have also caused certain investors to be a non-core asset. This combination of factors has resulted in greater turnover in private equity investments. The expansion of private equity funding and the interest in liquidity options have not been matched by a growth in secondary funds, especially real estate related funds. Because there are few established secondary purchasers in the market, there may be

²⁶ Landmark Partners, "An Overview of Real Estate Secondary Investments,".pdf, 2001

significant upside opportunities for a firm that can be well positioned to take advantage of the rapid growth in private equity capital and the growing demand for liquidity options in the secondary market.

Real Estate Opportunity Funds

As mentioned above, real estate opportunity funds are relatively nascent, however, there are several firms that have been fairly active in the space. The following section details some of these firms and their latest initiatives as described by their company websites, industry analysts, and internal professionals.²⁷

Starwood Capital

Founded in 1991 and located in Greenwich, Connecticut, Starwood Capital specializes in real estate-related investments on behalf of select private and institutional investor partners. Starwood Capital is one of the nation's most active real estate investors having acquired a highly diversified portfolio totaling more than \$7.5 billion in real estate assets. Starwood has acquired equity interests in 10,600 residential lots, 4,600 multifamily an condominium units, 1,335 hotel rooms 13.0 million square feet of office and industrial space, 14.4 million square feet of retail space, and 2.8 million square feet of leisure-related properties.

Most of Starwood's activity is focused around several funds. Since inception, Starwood has sponsored six co-mingled funds. Starwood has consistently sought to maximize returns for its investors by anticipating market movements; shifting between asset classes, geographic regions and positions within the capital structure as appropriate. Starwood's most recent offering is

²⁷ Various industry sources comprised and presented the data in this section

Starwood Opportunity Fund V, L.P. This fund is designed to make opportunistic real estate equity investments in real estate operating companies, office properties, retail centers, and zoned residential land. Areas of current investment focus include re-capitalizing over-extended or undervalued REITs, assisting liquidity constrained real estate owners, and expanding a number of specialized real joint ventures. Recently, Starwood has entered the international market with its Opportunity Fund V LP.

Colony Capital

Colony Capital ("Colony") was founded in 1992 and is headquartered in Los Angeles. Colony's strategy is designed to consistently achieve attractive risk-adjusted returns by minimizing competition with other capital sources, while maximizing value through intensive post-acquisition management. Colony achieves this strategic goal through three themes: 1.) Cautious Contrarianism- creatively investing ahead of the general market by early identification of capital misalignments and anticipation of areas of cyclical recovery 2.) Exploitation of Inefficiencies — capitalizing on significant complexity, information advantages, product imbalances, and proprietary transaction sourcing to secure investments with limited competitive pressures and 3.) Value-added Management to Optimal Exits — early identification of optimal exit strategies and intensive management aimed at maximizing value.

Colony has applied its investment strategy throughout a variety of market conditions. As competitive pressures in the U.S. portfolio sector reduced expected yields, Colony expanded the geographic and product scope of its investment activities while maintaining the discipline of its historically successful strategy. Currently, Colony is invested in three primary regions, North

America (57%), Europe (28%) and Asia. In terms of real estate asset class, Colony is widely distributed as follows: hospitality (26%), Residential (20%), Retail (11%), Gaming (9%), Office (8%), Other (7%), Finance (6%), Services (6%), and Non-Performing Loans-NPL's (4%).

Goldman Sachs Whitehall Fund

Goldman Sachs Whitehall Funds ("Whitehall") is one of the most established of the real estate private equity firms having started back in late 1980's. Recently, Whitehall has been rapidly expanding its international investments. With control of almost \$50 billion in real asset assets worldwide on behalf of institutional and individual investors and dealing with large scale portfolios of loans and significant individual assets, much of current and anticipated growth for Whitehall involves Europe and Asia and, of course, the United States and Canada.

Goldman Sachs Whitehall recently raised its eighth Whitehall Street Real Estate Fund in 2001. The Fund raised \$2.5 billion, of which \$550 million was committed by Goldman Sachs and its employee's own capital. Though the fund is set up to invest both domestically and overseas, it is expected to focus mainly in European real estate, where returns are about a third greater than those in the United States. It will also seek opportunities in the real estate tech sector, such as telecommunications hotels, co-location facilities and data centers. Whitehall funds have made more than \$7 billion of property investments worldwide since being formed in 1989.

Shorenstein Company

Starting in 1992, Shorenstein Company has formed a series of closed-end investment funds as their exclusive real estate investment vehicle. The earliest funds were organized to take advantage of the fallout from the real estate downturn of the late eighties and early nineties. The more recent funds have focused on identifying selected opportunities for superior risk-adjusted performance within a generally more stabilized United States commercial real estate market. Shorenstein's approach has been to acquire high quality, substantially leased office buildings which, due to their location, physical quality, amenities and other attributes, have a demonstrated leasing advantage within their markets, but which are facing leasing and/or operating challenges that temporarily impair value.

Since 1992, these investment funds have acquired and developed properties totaling over 15 million square feet in transactions with a gross acquisition/development cost in excess of \$5 billion. During this period, as assets were successfully repositioned, Shorenstein has selectively sold properties and, in some cases, partial interests in properties.

Apollo Real Estate Advisors

Apollo Real Estate Advisors ("Apollo") was formed in April 1993 as the real estate affiliate of the Apollo organization, a group of companies that has managed in excess of \$16 billion in equity since its formation in 1990. Since inception, Apollo has overseen the investment of four real estate funds, comprising over \$3.7 billion of equity, which collectively have invested in over 200 transactions with an aggregate value in excess of \$13 billion. The funds target a broad range of direct equity and debt investments in real estate assets, portfolios, joint ventures and operating companies. The firm has globally diversified its funds through approximately \$595 million of equity investments in real estate ventures in Europe and Japan with an aggregate purchase price in excess of \$4.2 billion. Apollo has executed 44 international investments in 14 countries.

The Apollo's objective is to provide its Limited Partners with superior risk-adjusted returns though equity and debt investments in real estate assets, portfolios, joint ventures and operating companies. The funds pursue an acquisition program that consists of a wide range of real estate investments that offer the opportunity for highly attractive risk-adjusted returns. Apollo seeks situations where assets or interests can be acquired at prices below Apollo's estimate of value or where value can be enhanced through intensive operational and financial management. Apollo pursues assets held by domestic and foreign financial institutions, developers, public and private companies and public and private security holders. Apollo targets situations that are less competitive due to financial, regulatory or tax complications, as these situations are expected to allow the Principals to leverage their experience in structuring complex transactions into lower effective purchase prices.

Charlesbank Capital Partners

Charlesbank invests in companies or alongside operating partners who develop, own and manage a broad range of assets both by property type and geographic location. Charlesbank emphasizes hands-on asset management with its operating partners and continual attention to the timing of asset sales to maximize the value of its partners and investors. To date, the group has invested approximately \$1.4 billion in more than 65 transactions, typically committing \$15 million to \$50 million per transaction.

In 2001 Charlesbank closed on \$495 million for Charlesbank Realty Fund V, with numerous endowments and foundations among our limited partners. Charlesbank continues to invest in a range of property types, including office, retail, industrial and residential projects, as well as

hotels, self-storage, mobile home communities and land, principally in the US. Charlesbank is currently exploring investments on a number of fronts, including: Real estate operating companies seeking to accelerate growth through new development opportunities or to recapitalize their balance sheets: Development firms focused on new construction and renovation, real estate management companies, firms seeking to acquire undervalued real estate assets.

Blackstone Real Estate Advisors

Formed in 1992, the group has emerged as one of the most active investors in the global real estate market, having completed over 100 separate transactions comprising more than 600 individual real estate assets valued at approximately \$13 billion. Through its real estate funds such as Blackstone Real Estate Partners I, II, III, and Blackstone Real Estate Partners International, the firm has raised approximately \$4 billion for real estate investments, primarily in North America and Europe.

The size of Blackstone Real Estate Advisors' (BREA) investments varies depending on the opportunity and market conditions, but Blackstone generally seeks real estate investments requiring a minimum of \$30 million in equity capital. Blackstone will consider smaller investments that provide footholds in a new market, solidify a bond with an existing partner, or enhance an existing portfolio. Blackstone's real estate funds are among the sector's largest with over \$4 billion raised through three Blackstone Real Estate Partners (BREP) general funds and one specific Western European fund, BREP International. Investments have focused on major

urban office buildings, the lodging sector, distribution and warehousing centers, retail, and a variety of real estate operating companies.

AEW Capital Management

AEW has been involved in high-return private equity investing since the early 1980s. AEW has sponsored a number of successful investment partnerships designed specifically to take advantage of high-return private equity opportunities and has raised aggregate net equity of over \$2 billion. The first of these partnerships was formed in 1988 and was the first high-return private equity vehicle dedicated to real estate investment.

On behalf of the AEW Partners Funds, a series of discretionary, high-return private equity real estate partnerships, AEW seeks opportunities to capitalize the value creation activities of real estate entrepreneurs, to arbitrage disequilibrium in the public and private capital markets, to provide capital to fundamentally healthy but capital-constrained sectors of the market, and to take advantage of specific factors present in improving real estate markets and submarkets. Investments can be structured as direct ownership, joint ventures, convertible or subordinated debt or real estate-related securities. Preferred investment size is \$25 - \$75 million, and typical investment periods are 3 - 7 years.

Kennedy-Wilson

Fund I is a closed-end co-investment real estate fund that has invested in high-quality suburban office property located in seven growth markets in six cities in the United States. The Fund is a limited partnership comprised of a Kennedy Wilson entity as General Partner and Kennedy Wilson co-investing 5% as a limited partner, along with pension fund clients. The \$158 Million Fund, which is fully funded and invested, has acquired assets with a projected portfolio IRR of 19%.

The Kennedy Wilson Property Fund II is a closed-end investment real estate fund that invests in high-quality office, industrial and multi-family property as well as distressed real estate loans located in selected growth markets in the United States. The Fund is a limited partnership comprised of a Kennedy Wilson entity as General Partner and Kennedy Wilson co-investing 5% as a limited partner, along with pension fund clients. The \$500 Million Fund will have \$200 million of equity and up to \$300 million of debt as its capital structure components. Targeted Property Returns *on a pro forma basis are:* 12% - 14% unleveraged IRR and 16% - 22% leveraged (equity) IRR. Utilizing up to 60% leverage, with holding periods ranging from 4-7 years.

Morgan Stanley Real Estate Fund

Since 1991, Morgan Stanley Investing Group has been one of the most active real estate investors in the world acquiring in approximately \$23 billion of assets globally, including over \$4.2Bn in seven countries during 2001. Morgan Stanley's investments include portfolios of performing and non-performing real estate loans and assets; individual assets; residential development properties; and real estate management and operating companies. In addition to acquisition activities, MSREF has also been an active seller of real estate assets completing dispositions totaling approximately \$3.1Bn and \$2.9Bn in 2000 and 2001, respectively.

The Real Estate Investing Group is a family of Morgan Stanley sponsored equity funds which include the Morgan Stanley Real Estate Funds (MSREF) and the Real Estate Special Situations Program (RESSP). MSREF pursues opportunistic real estate investments worldwide while RESSP invests in real estate companies that are either public or planning to go public in the near term. Morgan Stanley also has a separate real estate private capital group. The Private Capital Markets Group ("PCM") was created in 2000 to formalize MSR's long-standing efforts and experience in raising private equity capital from institutional investors worldwide. PCM focuses on raising private equity targeting the real estate sector on behalf of both the Firm's proprietary real estate investment funds and for third party clients.

Walton Street Capital

Walton Street has been an active private equity investor over the past several years. Of the \$1.1 billion of aggregate equity commitments received by the Funds, the Principals have personally committed \$111 million alongside the investors in the Funds. The Funds have an opportunistic and value-added investment focus, with the objective of producing returns to investors of at least 20%. Walton Street will focus on three primary strategies within single asset transactions: Value Creation: Walton Street acquires real estate assets which have significant cash flow and residual value enhancement potential through creative and aggressive asset management, including targeted capital improvements, tenant lease-up opportunities and operating efficiencies. Walton Street seeks opportunities to acquire real estate assets that are under-valued due to the complexity or illiquidity of the existing ownership or capital structure. In such situations, Walton Street will seek to actively work through the complexities, gain control of the

asset and prepare such asset for sale, without the prospective risks of bankruptcy, fragmented ownership or property-level issues.

While the Funds' primary investment focus remains in the U.S., Walton Street has a demonstrated access to opportunities within global markets. Unlike Walton Street's typical domestic investment strategy, Walton Street accesses these global opportunities through experienced, sophisticated local partners and operators who have established, long-term relationships within their markets and have access to proprietary transaction flow. Walton Street participates in selected land acquisition and development opportunities to capitalize on an imbalance between the supply and demand of space for a particular property type in specific markets that possess proven barriers to entry.

Praedium Group

The Praedium Group is a real estate investor focusing on under performing and undervalued assets throughout North America. Praedium was formed in 1991 with an international investment bank (CSFB) as its sole investor. Building on the experience and exposure gained through this original investment program, Praedium launched a commingled fund program in 1994 and has since sponsored three additional investment programs. With over \$2 billion in total investments to date, the commingled funds sponsored by Praedium have attracted investors that include public and corporate pension funds, financial institutions, insurance companies and endowments. Praedium concentrates on middle-market assets, each generally less than \$75 million in total cost, and has consistently demonstrated its ability to source, structure, finance and manage opportunities.

The Praedium Group's investment strategy is centered on pursuing middle-market assets with a total cost of less than \$75 million each and focuses on "value enhancement" opportunities - properties that are "broken" and can in turn be fixed and then sold upon stabilization. Frequently, investments made by The Praedium Group are pursued in conjunction with local operating partners who are experts in their respective markets and bring solid market knowledge, strong functional expertise and property level asset management services to the transaction. Praedium recently raised its latest fund, The Praedium Fund V, at \$465 million. This fund will, with leverage, give the Fund \$1.5 billion in purchasing power through 2004. The Fund seeks to invest in properties throughout the United States and Canada in the \$5 to \$60 million range. It is anticipated that assets will be acquired either individually or in portfolio transactions (in which case transaction size may be substantially larger than \$60 million). Targeted acquisitions include multi-family, office, retail, industrial and mixed-use properties.

Carlyle Group

The Carlyle Group began making opportunistic real estate investments in 1993. Since then, Carlyle has successfully invested more than \$1.1 billion in equity in 79 transactions in its prefund activities and within Carlyle Realty Partners, L.P. (CRP I), Carlyle Realty Partners II, L.P. (CRP II), and Carlyle Realty Partners III, L.P. (CRP III).

Carlyle believes that by consistently pursuing an opportunistic fundamental approach to real estate investing, it can achieve premium returns at lower risk within relatively short holding periods. This approach focuses first on property-level fundamentals to identify well-located

assets in large and under-supplied markets where forecasted vacancies remain low and forecasted new construction is unlikely to fully satisfy projected demand over the near-term. Within that context, Carlyle Realty pursues two types of strategic investments: first, value-oriented investments in midpriced central business districts and in-fill locations in urban markets where strong job growth continues to drive demand; and second, in-fill redevelopment opportunities that enable us to create value by converting underutilized real estate in those same target markets.

Greystar Capital Partners

Beginning in 1996, Greystar Capital, through several investment partnerships (collectively, "GEP II"), sponsored equity investments of \$68.1 million in four operating companies: Homegate Hospitality, Inc. ("Homegate"); EdenCare Senior Living Services, L.P. ("EdenCare"); CFH Service Centers, L.P. ("Service Centers"); and Daniel Island Associates, L.L.C. ("Daniel Island"). Homegate Hospitality, Inc. was formed in 1996, to develop a new national brand of high-quality, mid-priced, extended stay hotels, and a partnership with Trammell Crow and Wyndham Hotel Corporation. EdenCare was formed in 1997, and is an Atlanta-based developer, owner and operator of assisted living, dementia care, and independent living communities. Service Centers, a partnership formed to own, manage, develop, and acquire bulk distribution warehouse and service center properties, contributed its assets to Crow Family Holdings Industrial Limited Partnership (which is the operating partnership of the CFH Industrial Trust, Inc., a real estate investment trust formed by Crow Family Holdings) in exchange for operating partnership units. Daniel Island was formed to develop a \$130 million, 1,800-acre master

planned residential and 36-hole golf course development on Daniel Island in Charleston, South Carolina.

In 1994, Greystar Capital sponsored Greystar Equity Partners, Limited Partnership ("GEP I") to invest in value-added real estate. GEP I's investments focused on acquisitions and repositioning of under-performing real estate, and development and redevelopment of land, multi-family, and office product. GEP I has achieved an IRR of 26.7% on realized assets and is projected to achieve an IRR of 26.0% on unrealized assets. The projected total IRR for GEP I is 26.4%.

AIG Global Real Estate

In 1995, AIG Global Real Estate ("AIGGRE") formed the Fund Management Group to structure and offer investment products that would provide investors worldwide with the ability to achieve enhanced returns in international real estate. The group combines the international real estate investment experience of AIG Global Real Estate with the extensive experience of AIG Companies as sponsors and managers of private equity funds. Since 1994, AIG has sponsored 24 private equity vehicles. In 1995 and 1998, the AIG Global Real Estate Fund Management Group closed its first two real estate funds: Property Mezzanine Partners, L.P. (1995) and the French Property Fund (1998). AIG Global Real Estate is in the process of launching the International, Asian, European and Latin American real estate opportunity funds.

In an effort to broaden its global real estate investment activities in 1995, AIG Global Real Estate entered the fund management arena as a partial owner of the Property Mezzanine Partners Fund, a U.K. limited partnership fund. This fund was formed to take advantage of an

identified market need to provide second-level subordinate financing to U.K. commercial and industrial real estate properties. Between 1995 and 2000, this fund closed 11 investments in three principal areas: (i) financing direct acquisitions of individual properties, property portfolios and land earmarked for development; (ii) refinancing existing property investments; and (iii) bridge financing. This fund is closed and as of December 31, 2001, ten of the eleven investments had been liquidated.

ING Real Estate Partners

ING Realty Partners is the successor to ING Capital's opportunistic real estate investment business formed in 1993. The investment strategy evolved from pricing arbitrage of real estate assets purchased from distressed institutions into entrepreneurial real estate equity investment. The company actively seeks to enhance the fundamental value of real estate in which it invests. ING Realty Partners has completed investments in over 30 different markets in every major property type. The group has acquired over \$4 billion of real estate since 1993, in more than 160 transactions, and has sold more than \$2 billion in real estate assets. ING Realty Partners, L.P., the first in a series of real estate opportunity funds to be managed by the company, closed its private offering in 1998 with \$540 million in total capital commitments from 25 investors. The group invested solely on behalf of ING Group prior to the formation of ING Realty Partners, L.P. Since 1993, the group has acquired approximately \$4 billion and selling more than \$2 billion of real estate assets.

ING Realty Partners focuses on smaller value-added and opportunistic investments in the United States and Canada, exercising disciplined investment selection and proactive asset management.

The Company is a market leader in the smaller asset segment of the real estate market, providing reliable, institutional capital and expertise to this less-institutional sector. ING Realty Partners uses local operating partners with specific market or property expertise to enhance the strengths of its successful investment program.

INTERVIEWS WITH MAJOR OPPORTUNITY FUND PRINCIPALS

Discussions were held with many professionals in the industry to include valuable extended interviews with the senior management of the Carlyle Group, Goldman Sachs Whitehall Fund, Blackstone Real Estate Advisors, AEW Capital Management and Cherokee Investment Partners.

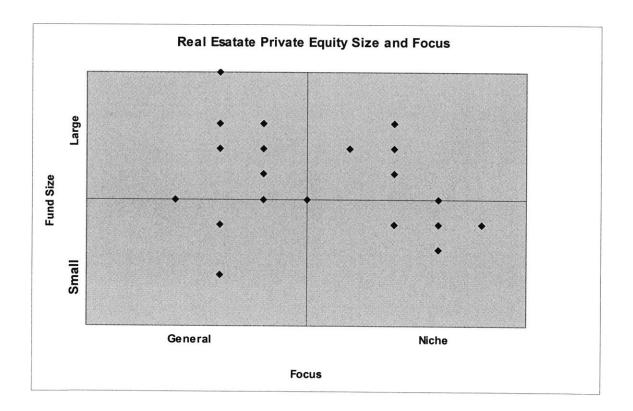
While singled out comments are not presented, the individual consensus within all the interviews are relatively consistent. In addition to providing overall guidance and key overview of the current issues, the following section provides overall responses to relevant issues facing the real estate opportunity fund business today.

Overview of the Real Estate Private Equity Industry

The industry has experienced tremendous growth from its heydays in the early to mid nineties. In fact perhaps too much growth, the individuals interviewed all said that they felt that there was more private equity chasing the same deals to sustain the type of returns that the limited partners are demanding. Indeed many of our respondents said that they felt that the underlying fundamentals in the industry as a whole are out of kilter, stating that while performance is getting hit, prices are not reflecting the downward trend as a result of the counterforce posed by low interest rates. The predominant strategy is wait and see. The interviewees believe that the industry is maturing and that the level of sophistication going into these deals are increasing along with the management and internal infrastructure.

Firm Positioning

The interviewees had a wide array of focus. When asked where they saw themselves on size and focus dimensions, all of them had a good sense of where they were in terms of the marketplace and in relation to their direct and indirect competitors. The following figure shows the distribution of the companies described above.



The idea is that while there are big players with a general focus there is room for small players with a niche focus.

Difference in Real Estate and Traditional Private Equity

Interviewees, both with heavy real estate backgrounds and private equity backgrounds agreed that there is very little difference in the way that they approach real estate versus traditional private equity. Aside from the underlying asset difference many stipulated that the issues are the same: getting the people in place, raising capital, and investing capital. Indeed, they are also reporting in terms of multiples and IRRs.

Transparency and Reporting

It is clear that this is a big issue in the industry today as all of them acknowledged the higher demand on their respective limited partners for greater transparency and reporting.

Some respondents said that they report to outside investors the same number that they use internally for business plans. Other respondents recognized the importance of standardization, but saw little benefit of reporting beyond factual historical performance and into forward-looking reports.

All of the interviewees said that they are all for standardization and transparency, but had very little to offer in terms of how the industry is going to get there. For, example many criticized the use of NCREIF because of its appraisal method and lack of breadth, but did not indicate a better alternative.

Major Issues/Trends

In addition to the transparency and tax issues discussed above a major issue raised was that of infrastructure. While many of the larger funds have been able to transfer much of their processes over from the their previous activities, many in the industry are having to put in place or upgrade their systems to process the deal flow and monitor and report the committed capital.

With regard to market trends there were a lot of concern about the current economy, which drive the markets, that all of these firm are exposed to. However, each of them had different opinions on the sequence of the recovery and how they were going to capture the opportunities. Some are looking to acquire hotel then industrial/retail, then office, while others are looking to start with multi-family. Nevertheless, all of them were cautiously optimistic going forward that the market will recover.

Starting up a Fund

Track record is the key determinant in starting up a fund. Many of these funds were started as either a fund within a larger fund family or as venture raised by an experienced fund manager. It appears that a track record of handling institutional funds is as important as understanding real estate itself.

Consistent with their opinion on the similarity of real estate and traditional private equity funds, the fund raising is seen as identical. In fact roughly 25% of the funds raised by those funds with larger traditional funds were cross-investments by existing limited partners looking for asset diversification. With regard to fee structure, one of the respondents felt uneasy charging a

transaction fee in addition to its other fees such as carry and a percent of capital under management. He thought that the general partner was in effect getting paid twice just for doing what the fund was supposed to be doing.

CONCLUSION

The real estate private equity / opportunity fund sector has experienced tremendous growth as a result of regulatory and market changes. With this growth come the pains and opportunities of restructuring the capitalization of a capital-intensive industry. While the underlying assets of real estate opportunity funds are different than traditional private equity funds, many of the issues facing emerging real estate funds are similar to the issues faced by traditional private equity funds.

As the industry continues to grow, many issues facing these opportunity funds will be intensified as the early pioneer funds start to exit their investments and realize returns to the limited partners. As the data analysis in this thesis indicates, the significance of the fund performance has very little correlation to date with any specific property sector as illustrated with the low Rsquare and t-Stat statistics related to the regression analysis. For the most part, very few consistent patterns have emerged in the industry with the exception of higher volatility in smaller funds and the importance of manager selection when it comes to investing in the right fund as evidenced by the wide range of performance returns within similar initial vintage year categories.

The industry is maturing towards greater efficiency and transparency along with the broader private equity industry. It appears likely that alternative investments such as real estate opportunity funds as an investment alternative that are here to stay. Not only does private equity align the interests of investor and manager but it also provides superior returns to the investor compared to the traditional fee-manager model that used to predominate property investments.

The real estate industry, which represents fifteen percent of the U.S. GNP,²⁸ is poised for continued growth. Although achieving the high returns expected of opportunity funds may be more difficult to achieve than in years past, moving forward, real estate private equity is well positioned to grow as it complements the public equity markets that help to improve the overall capital structure of the industry.

²⁸ Zell, Samuel, "Real Estate: Past, Present and Future," Wharton Real Estate Review (Spring 2002): 66.

BIBLIOGRAPHY

Batchelder, Bret. Interview by Author. Cambridge, MA, April 28, 2003.

Gray, Jonathan. Interview by author. Cambridge, MA, April 27, 2003.

Hudson-Wilson, Susan, "Modern Real Estate Portfolio Management," 1st edition, 2000

Lake, Ronald, "Private Equity and Venture Capital – A Guide for Investors and Practitioners,"

1st edition, 2000

Landmark Partners, "An overview of Real Estate Secondary Investments," 2002

- Larson, Robert C. "The RTC: Dispelling the Myths," *Wharton Real Estate Review* (Fall 1997): 53-57.
- Lerner, Josh and Hardymon, Felda, "Venture Capital and Private Equity: A Casebook, Volume 2," 2nd edition, 2002
- Lietz, Nori Gerardo, Dewey David, and Chan, Denise. Real Estate Opportunity Funds: The Numbers Behind the Story. *Pension Consulting Alliance, Incl, April 2001.*
- Linneman, Peter and Ross, Stanley, "Real Estate Private Equity Funds," Wharton Real Estate Review (Spring 2002): 5-7.

National Association of Real Estate Investment Trusts, "Annual Market Capitalization," <u>NAREIT Web site</u>, <<u>http://www.nareit.org/researchand statistics/marketcap.cfm</u>, <u>accessed June 15, 2003.</u>

Neidich, Dan. Interview by author. Cambridge, MA, April 15, 2003.

Nolan, Thomas. Interview by author. Cambridge, MA, May 20, 2003.

BIBLIOGRAPHY CONTINUED

Reiss, Dale Anne. "Opportunistic Investing: Real Estate Private Equity Funds." *Ernst & Young*. Stuckey, Robert. Interview by author. Cambridge, MA, May 23, 2003.

Zell, Samuel, "Real Estate: Past, Present and Future," Wharton Real Estate Review (Spring 2002): 59-66.