

Planning for the Next Generation
of Real Estate Investment Management Vehicles

By

Michael C. Jaeger

Bachelor of Arts
Connecticut College
1987

Master of Business Administration
Cornell University
1993

Submitted to the Department of Urban Studies and Planning
in Partial Fulfillment of the Requirements for the Degree of

MASTER OF SCIENCE
in Real Estate Development at the

Massachusetts Institute of Technology

September 1994

1994 Michael Jaeger
All rights reserved

The author hereby grants to MIT permission to reproduce and to distribute publicly
paper and electronic copies of this thesis document in whole or part.

Signature of Author _____
Department of Urban Studies and Planning
August 22, 1994

Certified by _____
Blake Eagle
Chairman, Center for Real Estate
Thesis Supervisor

Accepted by _____
William C. Wheaton
Chairman
Interdepartmental Degree Program in Real Estate Development

MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

OCT 04 1994

LIBRARIES

PLANNING FOR THE NEXT GENERATION OF REAL ESTATE INVESTMENT MANAGEMENT VEHICLES

By

Michael C. Jaeger

Submitted to the Department of Urban Studies and Planning on August 15, 1994
in partial fulfillment of the requirements for the Degree of
Master of Science of Real Estate Development at the

Massachusetts Institute of Technology

Abstract

Due to its solid performance in the face of high inflation during the 1970's, real estate became an attractive investment at the beginning of the 1980's. However, the amount of capital invested soon outstripped the demand for product at the user level and thus, the capacity of real estate returns to rise with inflation. Only with an understanding of real estate fundamentals such as asset character, investment interests, risks and current market opportunities can the institutional investor form a realistic value-added investment strategy. This strategy can be either for the purposes of risk reduction or income enhancement. As the investor gains experience, the investment strategy often represents a combination of both core and opportunity components. Reviewed historically, the progression of institutional investment vehicles demonstrate an evolution toward flexibility. Several issues regarding valuation and management fees still remained unresolved. Reviewing the implications of these issues should be fundamental to those involved in the design of new real estate investment management vehicles.

For J.P. Morgan Investment Management, the choice of an infinite-life vehicle is advantageous for their new real estate fund. The decision to use a Real Estate Investment Trust or a Delaware Business Trust will prove more difficult. The REIT is clearly structured as an efficient real estate investment vehicle, but there is some concern over its distribution and transferability requirements. While management fees based on performance are currently a popular way to align the manager's interest to those of the investor, they can be impractical in an infinite-life vehicle unless they are innovatively designed. In terms of investment strategy, there are still many institutional quality acquisition opportunities available. However, conclusions from a net present value analysis suggest that an opportunity-oriented investment strategy that involves shorter holding periods may not be as profitable as a longer term strategy.

Thesis Supervisor: Blake Eagle
Title: Chairman, MIT Center for Real Estate

TABLE OF CONTENTS

Thesis Cover Page	1
Thesis Abstract	2
Table of Contents	3
CHAPTER I -- SHORT HISTORY OF INSTITUTIONAL REAL ESTATE INVESTMENT	
Pre-1970	4
1970-1979	6
1980-1989	9
1990-1994	15
Conclusions	20
CHAPTER II -- INSTITUTIONAL REAL ESTATE CHARACTER, RISKS, AND INVESTMENT STRATEGY	
Asset Character	22
Investment Structures	23
The Risk Diversification Strategy	26
The Opportunity Strategy	30
Conclusions	31
CHAPTER III -- REVIEW OF EXISTING INSTITUTIONAL INVESTMENT VEHICLES	
Real Estate Advisors	33
Current Investment Vehicles	34
Current Investment Management Issues	39
Conclusions	41
CHAPTER IV -- CASE STUDY: NEW REAL ESTATE INVESTMENT VEHICLE PLANNING PROJECT AT J.P. MORGAN INVESTMENT MANAGEMENT	
Company Background	44
Vehicle Choice Considerations	47
Management Fee Considerations	52
CHAPTER V -- FINANCIAL EVALUATION OF INSTITUTIONAL INVESTMENT STRATEGIES	
Model Assumptions	61
Findings	65
Appendixes 1-4	68
Bibliography	77

CHAPTER I

SHORT HISTORY OF INSTITUTIONAL REAL ESTATE INVESTMENT¹

PRE-1970

From after World War II until the early 1970's, commercial banks and life insurance companies were the primary institutional participants in commercial real estate financial markets. Commercial banks provided most of the construction lending and short-term financing. Insurance companies did the majority of permanent lending. Both investors matched their investments to the term structure of their liabilities. Banks were capitalized with demand deposits from traditional savings. Insurance companies had long term whole-life obligations from policy payments. The investments of Savings and Loan Associations (S&L's), a third financial intermediary active in real estate lending, were restricted to home mortgage loans.

¹The material for Chapter I is primarily taken from two sources: Revisiting the Case for Pension Fund Investment in Real Estate (Tacoma: Frank Russell Company, 1990) and Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," in Managing Real Estate Portfolios, ed. Susan Hudson-Wilson and Charles Wurtzbach (New York: Irwin, 1994), 1-49. This chapter is included to serve as background on the historical forces that have shaped real estate financial markets. An understanding of these forces will help institutional investors ensure that future real estate allocations are invested successfully.

All three intermediaries operated locally and thus were well-positioned to recognize market imbalances between supply and demand.² When a developer decided to build, he approached local institutions for a construction loan. The local bank would not lend until the developer received a commitment for a permanent mortgage. The life insurance company issued a commitment usually through a local representative, making it conditional on a substantial amount of up-front equity and pre-leasing. The proximity of lenders to their markets helped them remain responsive to market fundamentals.

Besides the three traditional participants, pension funds were becoming a potential fourth source of real estate capital. However, as relatively young intermediaries, their investment allocations were extremely conservative. They invested almost entirely in low-risk financial assets such as U.S. government bonds and AAA to A quality corporate bonds. Until the 1970's, total rates of return in the traditional bond and stock markets exceeded expectations and there was no need to look elsewhere for investment opportunities.³

²Revisiting the Case for Pension Fund Investment in Real Estate, (Frank Russell Company), Pg. II-3-II-8

³Revisiting the Case for Pension Fund Investment in Real Estate, (Frank Russell Company), Pg. II-3-II-8

For a variety of reasons, real estate investments were thought to be structurally inferior to those offered in stronger financial markets. The following issues were often cited: 1) the local orientation of markets, 2) infrequent trading of properties, 3) uniqueness and lack of comparability of each asset, and 4) the importance of tax and financing.⁴

1970 - 1979

The supply of institutional capital by nontraditional investors began to increase in the 1970's as a result of high rates of inflation experienced during the decade.⁵ Inflation began its climb in the late 1960's. In 1969, it reached 6%. Six percent annual inflation represented a noticeable increase from the average of 3.8% through 1965-69 and especially 1.2% from 1960-64. At the beginning of the 1970's, institutional investors probably first realized that inflation could result in a substantially lower real return on financial assets. In 1975, the annual inflation rate reached 12.2%. By the mid-1970's, inflation had become a new phenomena that institutional investors would have to somehow resolve. Throughout the 1970's,

⁴Mike Miles, "Real Estate as an Asset Class: A 25-Year Perspective," in Real Estate Portfolio Management, ed. Brian Bruce (Chicago: Probus, 1991) Pg. 4. A further explanation of these issues is provided in the first section of Chapter II.

⁵Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," Pg. 6, 15-16. The annual rates of inflation are taken from those cited in the article. They represent the Consumer Price Index published by the U.S. Bureau of Labor Statistics.

inflation remained high averaging 7.6% for the decade. This rate represented a three hundred percent increase over the previous decade's average of 2.5%.

Increasing inflation lowered the real return of mainstream financial assets such as stocks and bonds investments. As evidenced through a comparison of annualized rates, lower than normal returns were experienced by investors both in the late 1960's and the 1970's.⁶ In the ten years ending 1979, the average real rates of return for stock and bonds were both negative at -2.4% and -1.4%, respectively. Investors found that they had lost ground in real terms by the end of the decade with their traditional financial investments. Investors with liabilities indexed to inflation, such as defined benefit pension plans, realized that their failure to keep pace with inflation had a double impact on their balance sheet. The 1970's, for pension fund investors especially, underscored the importance of inflation planning as part of the investment process.

During the decade, direct real estate investment produced a positive average real return of 3.6%.⁷ If a positive real return was not enough to entice new investors,

⁶Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," Pg. 4-7. The annual rates of return for stocks and bonds are taken from those cited in the article. They are from the S&P 500 and the Solomon Brothers' High Grade Corporate Bond Index, respectively.

⁷Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," Pg. 4-7, 15-16. The annual rates of return for real estate are taken from those cited in the article. They are from the Russell-NCREIF index which tracks the portfolio performance of unleveraged institutionally owned real estate.

real estate professionals pointed to the apparent positive correlation between real estate returns and inflation. Returns rose both in 1973 and between 1977-79 near to when inflation rates reached their peak. As an explanation, professionals also pointed out that while leases locked in rental payments for several years, they often incorporated provisions for the owner to pass on any annual increases in expenses to the tenant. Less noticed was real estate's low returns in 1975-76. For sophisticated investors, this phenomena may have suggested a lag in reaction time or a limited hedging capacity to inflation.

The Employee Retirement Security Income Act (ERISA), passed by Congress in 1974, proved to be an additional boon for the attraction of real estate capital from pension funds. Congress' objective was to safeguard the private pension system by holding pension plan sponsors accountable to fiduciary guidelines. These guidelines established a "prudent man standard of care" for all plan sponsors and obligated them to perform their fiduciary duties "solely in the interests of the plan".⁸ To act prudently, ERISA underscored the importance of managing risks inherent in the total portfolio rather than just those found in each individual asset. Plans were encouraged to look for alternative investments in order to reduce the overall risk of the portfolio.

⁸Herbert Krueger and Lennine Occhino, "Reconciling Performance Fees for Pension Fund Real Estate Managers with ERISA," Real Estate Review, Fall 1991, Pg. 18-20

The concept of portfolio risk was based on Modern Portfolio Theory, established by Harry Markowitz in the 1952. In essence, Markowitz suggested that risks found at the portfolio level were more important than those found at the individual asset level. According to his theory, investments should be chosen primarily for their net value either in reducing the overall risk or enhancing the overall return of the existing portfolio. The correlation between the historical returns of assets was often cited as a proxy for expected correlation in the future. In line with Markowitz's theory, pension funds and other institutional investors would benefit by further diversifying their portfolios with those investments that demonstrated a low historical correlation with the existing portfolio's returns. Real estate investment offered value due to the ability of its return to rise with inflation when other traditional investments declined.

1980 - 1989

In 1979, inflation again reached its highest point at 13.3% at the close of the decade. In 1980, inflation dipped a little to 12.8% but still remained in double digits. There was a widespread feeling that high inflation was here to stay. In order to preserve the value of their investments, a variety of new capital sources began to invest in real estate equity. While U.S. pension funds increased their allocations to real estate, two additional groups -public and private real estate syndicators and foreign investors- also contributed large amounts of capital. In addition,

the three traditional real estate lenders provided most of the debt financing.

All six investment groups were encouraged by the relatively strong demand and supply fundamentals of the market in the beginning of the decade. These fundamentals suggested that growth in rental rates would continue to keep pace with unanticipated rates of inflation. On the supply side, vacancy rates in office and industrial sectors were at all time lows. The supply of new capital was also constrained by the uncertain profitability of fixed rate lending in an inflationary environment. Further, inflation had increased the cost of bringing new supply to the market. On the demand side, employment was projected to continue its healthy rate of increase based on national demographics. The baby boom generation would continue its entrance into the workforce begun in the 1970's. Women were also beginning to work in unprecedented numbers.

PENSION FUNDS. In the 1970's, plan managers had lost substantial ground in their efforts to match their long term obligations. They were impressed by real estate equity's ability to keep pace with inflation. New to real estate investing, pension funds participated by making passive equity and leveraged equity investments in commingled funds sponsored by ERISA-accredited investment advisors. Between 1980 and 1989, pension funds increased their allocation to direct real estate by over \$105 billion, from \$4.7 billion to total \$113 billion.⁹ Approximately two-thirds of this increase

⁹Revisiting the Case for Pension Fund Investment in Real Estate, (Frank Russell Company), Pg. VI-6, VII-4

occurred during the second half of the decade. For plan managers, the increasing allocations represented an effort to keep pace with their initial percentage target for real estate. From 1980 to 1989, pension fund assets increased from \$1.8 trillion to \$2.7 trillion, an average increase of over 13% a year.¹⁰

SYNDICATORS. Public and private real estate syndications have been popular since the late 1960's when inflation began to raise the tax brackets of many Americans. These limited partnerships brought immediate "phantom" tax advantages that could be used to shelter the wage and salary income of the investor. The Economic Reform and Recovery Act passed by Congress in 1981 dramatically enhanced the benefits of these shelters by accelerating the depreciation for real property to 15 years. Between 1980 and 1989, some estimate that as much as \$180 billion of capital was raised for real estate investment.¹¹ The largest impacts were felt in 1985 and 1986 with amounts raised trailing off after Congress passed the Tax Reform Act (TRA) of 1986. TRA 1986 cut off the investor's ability to apply losses realized in real estate against other gains. Real estate income was recategorized

¹⁰Anthony Downs, "The Fundamental Shift in Real Estate Finance from a Capital Surplus in the 1980's to a Capital Shortage in the 1990's," (New York: Solomon Brothers Bond Market Research-Real Estate, February 1991, Pg. 3-4

¹¹Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," Pg. 20-23,34-35. The article cites that according to Robert A. Stranger & Co., the public market invested \$48 billion in equity between 1980 and 1989. The authors assume that this amount represents half of the total syndication market and that the average debt to equity investment ratio was 65%.

as passive and could only be matched with other passive income. The only exceptions included affordable housing and historic preservation tax credit programs.

S&L's. Rising inflation encouraged savers to withdrawal their money from S&L's in search of higher yielding money market investments. To counteract the disintermediation of thrifts, Congress passed a series of measures to allow these institutions to offer higher interest rates on their deposits. However, additional powers to attract capital proved insufficient because S&L were caught paying more for their deposits and receiving less in real terms from their long term fixed-rate residential mortgage investments. Facing an increasingly insolvent thrift industry, Congress passed the Garn-St. Germain Act of 1982 to allow thrifts to make higher yielding commercial loans. Between 1980 and 1987, S&L's increased their commercial real estate lending by \$90 billion, from \$60 billion to \$150 billion.¹² As they replaced their lower yielding residential loans, thrifts could return to profitability. However, the expansion of powers created a 'moral hazard' for most thrifts. Since their deposits were insured up to \$100,000 by the federal government, some manager's felt that they could not loose by investing in high risk development loans in search of high profits fast. In 1986 and 1987, commercial mortgages accounted for one-third of all new mortgages.¹³

¹²Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," Pg. 20-23,34-35

¹³Anthony Downs, "The Fundamental Shift in Real Estate Finance from a Capital Surplus in the 1980's to a Capital Shortage in the 1990's," Pg. 1-2

COMMERCIAL BANKS. Even though they had lost substantial amounts of capital in real terms from fixed rate lending in the 1970's, banks began to increase their lending dramatically in the mid-1980's because of a decrease in profitable activities in other business sectors. Increasingly, banks were having difficulty making acceptable profits in traditional lines of business. Through the use of commercial paper, top-rated corporate borrowers had begun to move directly to the capital markets to finance their working capital needs.¹⁴ Competition among banks for construction lending to the most successful developers reduced spreads and underwriting standards. In their eagerness to earn fees, banks made extended mini-perm construction loans without take-out financing in place. Between 1980 and 1989, banks increased their commercial real estate lending by over \$260 billion, from \$80 billion to \$340 billion.¹⁵ Lending was primarily concentrated among the top 70 banks which had a commercial mortgage portfolio of almost \$200 billion.¹⁶

INSURANCE COMPANIES. Inflation had a disintermediary effect on the insurance industry, similar to the S&L industry. Policy holders realized that they could receive higher return on their policy investments and they either cashed in or borrowed on their policies. To counter the disintermediation that occurred,

¹⁴Thomas Black, "The Restructuring of Commercial Real Estate Finance" in ULI On The Future (1994): Pg. 78

¹⁵Revisiting the Case for Pension Fund Investment in Real Estate, (Frank Russell Company), Pg. VI-13, VII-8

¹⁶David Kelso, "The Hard Lessons of Commercial Real Estate," The Bankers Magazine (July/August, 1992): Pg. 26

insurance companies targeted the pension funds to invest capital in guaranteed insurance contracts (GICs). GICs were shorter term investments that encouraged insurance companies to offer bullet loans to match their increasingly shorter term liability structure.¹⁷ Between 1980 and 1989, insurance companies increased their commercial real estate lending by over \$110 billion, from \$80 billion to \$190 billion.¹⁸ Throughout the 1980's, insurance companies also expanded their role as real estate investment managers on behalf of pension funds. These companies were a natural choice as advisors based on the experience they had gained from investing in mortgage lending for decades.

FOREIGN INVESTORS. Foreign investors also proved to be a relatively large source of real estate capital in the late 1980's. The attractiveness of the U.S. real estate market was a function of the economic stability of the U.S. economy and the relative liquidity of property rights compared to other national systems. In the second half of the 1980's, the relative value of U.S. properties increased substantially due to changes in the exchange rates with Japanese and European currencies. Further, the globalization of capital markets and the increasing deregulation of foreign financial intermediaries encouraged investment in the U.S. Some could argue that foreign investment

¹⁷Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," Pg. 24-26

¹⁸Revisiting the Case for Pension Fund Investment in Real Estate, (Frank Russell Company), Pg. VI-13, VII-8

in U.S. real estate at \$30 billion during the mid-1980's.¹⁹ The Japanese alone invested \$48 billion in U.S. real estate in the late 1980's.²⁰

CONCLUSIONS. While market fundamentals had historically determined the availability of capital in the past, investment decisions in the 1980's were based on domestic and international regulatory pressures and economic events outside the scope of real estate markets rather than the traditional market fundamentals of local supply and demand. Influenced by unique circumstances, each group of investors continued to invest money until the late 1980's even though signs that the market was weakening were evident halfway through the decade.

1990 - 1994

Returning to the fundamental determinants of capital flows, one sees that supply and demand are radically out of balance in almost all major property markets for the majority of product types. On the supply side, construction in the 1980's often reached levels greater than previous amounts on record combined.

¹⁹Blake Eagle and Susan Hudson-Wilson, "Real Estate Markets: A Historical Perspective," Pg. 26, 39-40. The authors cite a study performed by Equitable Investment Management and The Roulac Real Estate Consulting Group at Deloitte and Touche that estimates equity investment net of leverage at approximately \$15 billion between 1983 and 1988. I am assuming 50% leverage was employed.

²⁰Anthony Downs, "The Fundamental Shift in Real Estate Finance from a Capital Surplus in the 1980's to a Capital Shortage in the 1990's," Pg. 4

On the demand side, the national demographics suggest a slower growth in the labor force and the overall economy for the 1990's. This slowdown will depress the rate in which existing product is absorbed, increasing the period needed to reach a balanced recovery. Further, the capital excesses in the 1980's has, of course, altered the investment appetite for real estate in the near term.

PENSION FUNDS. Pension funds appear to be in the best position to return to the real estate financial markets first. A range of investment advisors have established funds to purchase high-quality, well-located assets at a discount to replacement costs.²¹ While new acquisitions look attractive, pension funds still have extensive problems with their existing portfolios. Pension funds are taking a more active role in the development of the investment strategy and management policy. In separate accounts, they are extremely selective about their purchases, looking within targeted market for specific product types. Further, they are no longer willing to pay high flat fees that are tied to appraised values.²² In response, some advisors have come out with a variety of new features that make the investment process more

²¹Maria Wood, ed., "Portfolio Management Strategies," Real Estate Forum (March 1994):Pg. 29-40. Going-in yields are more attractive now that a significant repricing has occurred throughout the market. Investments can earn a significant annual yield without depending on the appreciable portion of the total return. However, those investors with real estate assets purchased in the 1980's have incurred substantial losses in value as part of the repricing process.

²²"Advisor's See Opportunity To Increase Fund's Real Estate Involvement," National Real Estate Investor, March 1994, Pg.115-122

flexible than ever before. These vehicles better align the interest of the advisors to their investors by increasing shareholder rights and basing a greater percentage of fees on performance.²³

COMMERCIAL BANKS. Commercial banks were subject to intensive regulatory oversight beginning in the early 1990's. Due to this pressure, several have made significant progress in reducing their loan portfolios by arranging bulk sales.²⁴ Other have preferred to hold on in order to sell as market prices for individual assets become more favorable. Banks will continue to focus on restructuring their loan portfolios and selling foreclosed property for the next few years. The reduced interest rate environment in late 1992 to 1993 has helped bank profitability reach record levels in 1993 and 1994. While banks have begun to extend financing or credit for working capital to maintain the value of existing loans, construction lending is a long way away.²⁵ As the market for new construction picks back up banks should return to construction lending. They should lend regionally in order to focus on areas where they are familiar with fundamentals. Long term lending will likely be avoided as it does not match their traditional liabilities.

²³James Frantz, "Investors Again Consider Real Estate a Favorable Asset Allocation", National Real Estate Investor (April 1994): Pg. 75-88

²⁴In September 1992, First Chicago sold \$2.1 billion in commercial real estate "bulk-sale" after writing down loans and properties 46%. In November 1993, Chase Manhattan Bank sold \$1.4 billion after writing values down similarly.

²⁵Thomas Black, "The Restructuring of Commercial Real Estate Finance", Pg. 80

INSURANCE COMPANIES. The oversupply of new properties entering the market effected the portfolio of those insurance companies heavily in commercial lending. Starting in 1989 and continuing until the present, delinquent loans began to rise above their historical 3% level. They topped 6% since late 1990 and have remained at this level through the first half of 1993. In the same period, the foreclosure rate grew from 1% to over 3%. The total of delinquent loans and those restructured, not including foreclosures, have grown to represent 15% of total outstanding mortgages.²⁶ State regulators have established higher reserve requirements to penalize insurance companies with large mortgage and property portfolios. The National Association of Insurance Commissioners (NAIC), the main association of state regulators, approved tougher risk-based capital requirements in December 1992. The model code has been enacted in some states already. It calls for higher capital requirements for riskier investments such as joint venture mortgage loans, loans in distress, and investment property.²⁷ The one advantage for the insurance companies is that they have experienced in-house staff from their longtime role in the commercial mortgage market. They will return to lending as soon as the regulatory environment improves. State regulators, in turn,

²⁶Claude Zinngrabe, "Real Estate Investment by Insurance Companies," Urban Land (March 1994): Pg. 12-13,42,44. The author cites American Council of Life Insurance data.

²⁷Claude Zinngrabe, "Real Estate Investment by Insurance Companies," Pg. 14. Mortgages in foreclosure and joint venture partnerships are required to have 20% capital allocated according to model code. Delinquent mortgages and foreclosed property require 10% and 15%, respectively. The range of requirement is from AAA to A corporate bonds at 0.3% to common stock at 30% (U.S. Government bonds have no capital requirement).

will likely reduce their pressure when the percentage of distressed assets return to normal levels.

REAL ESTATE INVESTMENT TRUSTS (REITs) AND COMMERCIAL MORTGAGE-BACKED SECURITIES (CMOs). Since 1992, REITs underwritten by Wall Street's investment banks have begun to assume a large role in the financing of commercial real estate. Due to the current private market credit crunch, some of the most successful developers have been forced to offer their portfolios as public companies in order to raise additional capital to maintain their holdings and grow. The low interest rate environment in 1993 fueled the retail demand for property companies that can afford to pay a high percentage of their net income in dividends. Over \$17 billion of REIT offerings were made in 1993, double the existing market capitalization at the beginning of the year. While the market is currently small compared to other investment vehicles, some predict that the market capitalization will rise significantly overtime.²⁸

CMOs, a form of securitization for real estate loans, represent another potentially large source of capital generated by Wall Street. While volume has increased substantially, several problems remain. The most important problem

²⁸Stephen Roulac, "Surf's Up: Investors Ride the Fifth Wave of Securitization," Real Estate Capital Markets Report Vol. III, No. 4 (Spring 1994): Pg. 1, 4-7. The author estimates the REIT market capitalization will reach \$100 billion by the end of the decade. However, he cautions that some of the lessons of the four previous crashes do not seem to have been remembered.

involves the lack of underwriting standards and performance data on the security. At present, there is uncertainty as to the depth of the market for unrated tranches. Both these concerns should be resolved in time.

CONCLUSIONS

Due to its solid performance in the face of high inflation during the 1970's, real estate appeared to be an attractive investment at the beginning of the 1980's. Inflation was projected to remain at high levels for the near future and real estate market fundamentals looked very favorable. However, the amount of capital invested in real estate soon outstripped the demand for product at the user level and thus, the capacity of real estate returns to rise with inflation. The demand for investment quality real estate assets drove the development of product rather than the demand for space. While market fundamentals had determined the availability of capital in the past, investment decisions in the 1980's were based on forces primarily outside real estate markets. Influenced by unique circumstances, each group of investors continued to invest money even though signs that the market was weakening were evident halfway through the decade. The 1990's foretell a slow recovery process based on the oversupply in most markets and modest employment growth expected over the decade. Institutional investors would do well to keep revised assessments of the local market fundamentals in mind in making future allocation decisions.

CHAPTER II

INSTITUTIONAL REAL ESTATE CHARACTER, RISKS AND INVESTMENT STRATEGY

As documented in Chapter I, real estate equity demonstrated its investment value in the inflationary environment of the 1970's. However, the mass of capital chasing real estate investments in the 1980's resulted in an historic oversupply of product in relation to the actual demands of the user market. This oversupply of capital was the result of the failure of capital providers to make decisions based on market fundamentals. For some, this represented a significant departure from the past. In order to reduce the risks of real estate equity investment in the future, new and old investors must be more responsive to local market conditions. For all investors, an understanding of the attributes and interests of the asset class will prove essential to successful investing. Only through this understanding can investors consistently formulate coherent investment strategies based on their assessment of real estate's value to either diversify portfolio risk or enhance portfolio returns.

ASSET CHARACTER

The uniqueness of real estate assets makes the functioning of a market less efficient and more costly than those for traditional financial assets.²⁹ Real estate can not be divided easily into neat bundles for investment. This lumpiness reduces the level of trading because it is hard to purchase real estate in the denominations that an investor may want. Prices are based on land and improved values which, in turn, reflect the unique physical and locational attributes of the property. The heterogeneity of real assets fosters a local market orientation where those investors closest to the property are often the best judge of its value. On the bright side, the potential for superior returns and value creation by an experienced asset manager can be substantial.

²⁹Mark Coleman, Susan Hudson-Wilson and James Webb, "Real Estate in the Multi-asset Portfolio," in Managing Real Estate Portfolios, ed. Susan Hudson-Wilson and Charles Wurtzbach (New York:Irwin, 1994), Pg. 100-103

INVESTMENT STRUCTURES³⁰

Free and clear equity means that the property, and thus the cash flow, are unencumbered by debt. The investor receives the difference between the rental revenue and operating expenses at the property level. Leases obligate the tenant to pay rent over the entire term and usually have provisions for inflation adjustment. Free and clear ownership is relatively risk free compared to other types of severed or unencumbered interests primarily because it offers an unhindered claim. It is also the most liquid form of investment for the same reason.

Leveraged equity involves the use of mortgage financing to acquire ownership. The amount of debt financing depends on the lender's assessment of the stabilized value and annual cash flow of the property. Since the mortgage position is senior to that of the equity, the return on a leveraged equity position becomes more volatile. Leveraged equity has all the business risks of free and clear plus the risk of loan default and refinancing. If debt service payments are not made, the property will likely revert to the lender. Some control is yielded to the lender who may have the ability to approve leases, capital improvements, and additional financing.

³⁰The material for this section was primarily taken from Mark Snyderman and Stacy Sandler, "Commercial and Multifamily Real Estate Investment Vehicles," in Managing Real Estate Portfolios, ed. Susan Hudson-Wilson and Charles Wurtzbach (New York:Irwin, 1994), Pg. 50-89. The qualitative information in this article is common knowledge so I have refrained from citing it in the section.

In terms of liquidity, a leveraged investment may have prepayment penalties that add to the costs of completing a sale.

A mortgage invests in a senior position relative to equity for a fixed portion of the return generated from the property. These instruments are similar to a lease in that payments are contracted for a defined period and terms. For this reason, a mortgage is less risky than equity real estate from an operating standpoint. However, there is inflation risk on those mortgages with fixed rates. While the level of control appears moderate, it is significantly less compared to that of financial assets given the importance of asset management to maintaining values over time. Mortgages are relatively illiquid due to the smaller market of potential buyers as compared with equity interests.

A hybrid debt investment includes a combination of debt and equity characteristics. The lender agrees to a loan on a more favorable basis - either by reducing the rate or increasing the coverage - in order to have a relatively cheap equity position that captures increases in the property's value. While the debt portion is similar to a mortgage, the equity portion is set up as a participation feature where the lender can realize a portion of gains in cash flow and property appreciation. The risks of this type of investment can be substantial since the participation feature reduces the equity of the owner. Less equity on behalf of the owner makes foreclosure much more likely when property values decline. Due to the unique terms

of each transaction, hybrid debt is very illiquid. Sale often involves the unravelling of the debt and participation features.

A ground lease is created when the ownership of a particular property is split into land and improvement parts. A senior ground lease is a combination of fee simple ownership and long term lease. The owner of a ground lease receives a payment for leasing the land and at the end of the lease the ownership reverts back to the owner along with all improvements on the site, similar to the relationship between owner of a building and a tenant. Ground leases are relatively risk free assuming they represent the senior claim on an improved property. Sale leasebacks are a specific type of ground lease where the land and improvements are purchased and leased back to the original owner. These types of transactions are much more risky as they involve estimating the value of the improvements at the time of reversion back to the owner.

Due to the favorable combination of low risk and high liquidity, pension funds should favor unleveraged investment.³¹ Levered investments potentially offer a return that is a more solid inflation hedge, however the risk profile is high. Mortgage investment is still underrated by most pension funds as its analysis does not

³¹Emerging Trends in Real Estate: 1994, (Chicago: Equitable Real Estate Investment Management, October 1993):Pg. 13. Interviews of pension funds over the summer of 1993 found that the order of real estate investment preference was direct-unleveraged, direct-leveraged, mortgage-financing, joint-venture, and REITs.

clearly belong with either the direct real estate or fixed income departments.

Fixed rate mortgages behave similar to bonds, losing their value as interest rates rise. Thus, this type of loan does not offer the diversification advantage of real estate ownership. A hybrid debt/equity instrument, if structured conservatively, offers a combination of the advantages of equity and debt investment. However, the partner should have a substantial equity portion in the deal otherwise foreclosure is much more likely.

THE RISK DIVERSIFICATION STRATEGY

Without an understanding of investment risks, an institution investor cannot formulate an accurate investment strategy. The most popular real estate investment strategy is based on real estate's value in reducing overall portfolio risk.

To accomplish this reduction, it is important to diversify individual investments to reduce the risks that are not uniquely associated with real estate. The two traditional measures are based on product type and location. Institutional investors with greater amounts of capital have also gravitated toward larger, higher quality assets because of their economies and market franchises.

PRODUCT DIVERSIFICATION. Portfolios that are not diversified by property type have additional risk inherent in the specific product type. While the user demand for all property is primarily reflective of the economy's health,

there are additional variables that drive demand in each of the segments individually.³² For example, the chief competitor of the apartment is the single-family home. As the cost of home ownership decreases, those living in apartments are more likely to move-up. The potential new demand for apartments is determined by the rate of household formation. This rate is primarily a function of demographics in that apartments are most attractive to singles, young couples and the elderly.

The demand for office space is largely dependant upon the employment needs of those sectors of the economy that predominantly use office facilities. Office employment represent the overwhelming means of facilities for the Finance, Insurance and Real Estate (FIRE) sectors of the economy and a significant portion of the service economy. These sectors comprise 80% of office all employment. Since the growth in office employment is highly correlated with the absorption of new office space, the health of these sectors is a major indicator of the demand for office space.³³

One-half of all industrial buildings are owner occupied and a quarter are rented to single tenants. For demand forecasting, this market is segmented into manufacturing and distribution facilities. The demand for manufacturing space

³²The fundamentals that determine the supply of real estate product are more uniform and primarily based on the time necessary to bring the product to market.

³³William Wheaton, "The U.S. Real Estate market: An Economic Outlook for the 1990's, (Cambridge: MIT Center for Real Estate, 1993), Pg. 14-18

is primarily dependant on the level of manufacturing rather than employment because of the capital intensiveness in this sector of the economy.³⁴ New space is only needed to the extent that the growth in production is not offset by increased productivity. The demand for distribution space is a function of inventory levels and technological trends in distribution. Location for these uses, in areas that have modern infrastructure and strategic regional locations, is of primary importance.³⁵

LOCATION/ECONOMIC DIVERSIFICATION. The second traditional means of diversification is by geographical/economic location. Investments are diversified in localities over several regions in order to reduce the risk inherent in a particular location or type of economy. Unfortunately, most advisors that have engaged in geographic diversification have done so based on arbitrary boundaries such as state lines or regional groupings.³⁶ A more effective method to diversify geographically may be to incorporate differences in primary economies. Properties are bought in urban and metropolitan areas that are driven by different fundamental economic forces. While this new adaptation is intuitively appealing, it may prove ineffective compared

³⁴William Wheaton, "The U.S. Real Estate market: An Economic Outlook for the 1990's, Pg. 20-24

³⁵William Wheaton, "The U.S. Real Estate market: An Economic Outlook for the 1990's, Pg. 20-24

³⁶Charles Wurtzbach and Mary Ludgin, "Constructing an Efficient Real Estate Portfolio" (Chicago: JMB Institutional Realty, Spring 1993), Pg. 8-11. The authors cite the fact that many advisors diversified geographically based solely on the Russell-NCREIF regions. The article highlights JMB efforts to diversify using six basic economies: energy, high tech, office, government, manufacturing/distribution, and tourism.

to other more basic real estate specific strategies.³⁷

ASSET QUALITY. Another method of reducing risk is to purchase the highest quality properties or those properties that have barriers to entry. Assuming high quality projects can be purchased at a reasonable price, these properties offer relatively stable returns in all stages of the real estate cycle, including periods of oversupply. Their revenue stability may be due in part to the ability of more established tenants to pay their rent consistently even when they encounter hard times. In such times, these projects are also beneficiaries of a 'flight to quality'. Given a preference, tenants would rather be in the building with best amenities and location.³⁸ A good example of a product that can have a consistent barrier to entry overtime is the regional mall. New development in this form of retail demands acreage, capital, entitlements, and the agreement of several of a small group of national tenants. Existing regional malls have a franchise when one or more of these inputs are scarce.

³⁷Donald King and Michael Young, "Why Diversification Doesn't Work" (San Francisco: The RREEF Funds, Summer 1994), Pg. 6-12. The authors point out that more money is made or lost at the property level due to the acumen of asset and property managers rather than in portfolio construction.

³⁸Equitable Real Estate Investment Management's 1994 Emerging Trends report segments the loss in property values by four property qualities. Premium and high quality properties representing the top 5% and next 10% of the sock have had their values stabilize or decline slightly since year-end 1993. Average and below-average classes saw their properties continue to decline 10-15% over 1993.

THE OPPORTUNITY STRATEGY

At certain points over the last several decades, real estate has rewarded investor's with a very competitive real return compared to other asset classes such as stocks and bonds. An opportunity investment strategy is designed to maximize the investors real return. Additional risk is borne with the anticipation of achieving a higher risk-adjusted return. Traditional methods for taking on additional risk include concentrating in a specific location or product type, or taking on larger parts of the developers' role. Often, the investment advisor has sufficient experience to become an active participant in the development process. Besides active investment in development, the advisor could become actively involved in redevelopment, remerchandising or expansion efforts.

In today's credit restricted market there are additional opportunities for those willing to invest equity in troubled properties owned by institutional investors facing more stringent risk-based capital requirements. These requirements make owning real estate directly or having loans secured by real estate more costly by requiring that additional capital be available to reserve against possible defaults. For this reason, banks are often willing to discount the price of real estate assets and loans in order to free up capital. Investing in the offerings of recently issued public Real Estate Investment Trusts (REITs) also represents an opportunity for high yield in the near term. Several REITs are well-positioned to benefit from positive-spread investing

due to their early access to the public capital market and the substantial experience of management.³⁹

CONCLUSIONS

Only with an understanding of real estate asset character, investment interests, risks and current market opportunities can the institutional investor form a value-added investment strategy. This objective can be either for the purposes of risk reduction or income enhancement. As the investor gains experience, the investment strategy often represents a combination using both core and opportunity components. The core portfolio focuses on the maintenance of a stable current yield. The opportunity portion targets appreciation by taking a position with respect to a particular product type, location, or additional life-cycle risks.⁴⁰ The relative size of the core and opportunity components will be based on the investor's risk return preference. Investors that are primarily concerned with enhancing the stability of their returns may have a small opportunity component. Investors who are more confident about a specific strategy may place a larger portion of their allocation into an opportunity investment.

³⁹'Positive spread investing' means that REITs could buy assets in the private markets that yielded a higher rate of return than their weighted average cost of capital. Recently, however, the additional capitalization of the REIT market has bid up the price for acquisitions of popular products such as apartments and regional malls.

⁴⁰Charles Wurtzbach, "Assembling an Equity Real Estate Portfolio", in Real Estate Portfolio Management, ed. Brian Bruce (Chicago: Probus, 1991), Pg. 21-27

CHAPTER III

REVIEW OF EXISTING INVESTMENT VEHICLES

The investment strategy reflects the investor's specific and unique objectives. As highlighted in Chapter II, its proper development is dependant upon an understanding of the real estate asset class. The choice of an investment vehicle is simply an extension of an investor's particular investment strategy. However, each type of vehicle has relative advantages and disadvantages regarding shareholder rights, liquidity, measurability of performance, and legal considerations. For example, those investors new to real estate investment may choose to place their allocation entirely in a commingled fund because it offers diversification and access to the advisor's management experience. Other investors with a specific program for investment or more experience may decide to establish a separate account relationship where they can maintain more control and direct accountability. Still other investors with substantial experience in real estate investments and in-house staff may choose to enter into a co-investment agreements usually arranged by an advisor among like investors.

REAL ESTATE ADVISORS

In the 1970's, when pension funds first began to allocate a portion of their investments to real estate, three separate types of investment managers arose: insurance companies, banks, and independent real estate companies. A new real estate investment advisory industry allowed pension funds to enlist the real estate expertise required for successful direct equity investment. Advisors had to qualify as a co-fiduciary under ERISA. This qualification allowed plans to transfer the liability of their real estate investments to the advisor.

Insurance companies had a long history in investing in commercial real estate already through their commercial mortgage operations. Many had provided debt capital to the real estate industry since the 1950's and had a substantial amount of capital invested on their own behalf. These companies gained the lion's share of the real estate investment management market simply because they had the demonstrated experience in managing their own direct mortgage investments.⁴¹ Next to insurance companies, banks were a logical choice to enter the real estate investment advisory business due to their long history of operating in a fiduciary capacity as

⁴¹Claude Zinngrabe, "Real Estate Investment by Insurance Companies," Urban Land (March 1994): pg. 14. The author cites that in 1970 the insurance industry had approximately \$40 billion in commercial loans outstanding.

investment advisors in the stock and bond markets.⁴² While it was believed that experience in construction lending would assist the banks in their real estate advisory efforts, this expertise was never exploited. The third type of investment managers arose out of the real estate industry. These firms had top-notch reputations as brokers, syndicators and developers. They often had substantial experience in developing, financing and operating real estate assets on their own behalf.⁴³

CURRENT INVESTMENT VEHICLES⁴⁴

OPEN-END FUND. The open-end commingled fund was the vehicle of choice for the early stages of the real estate investment advisory business. These initial vehicles were similar to equity stock and bond mutual funds already established for pension funds. At insurance companies and banks, these funds were organized as separate accounts and fiduciary trusts, respectively.⁴⁵

⁴²Proposal to Los Angeles County Employees Retirement Association, J.P. Morgan Investment Management, December 13, 1993, Pg. 1. This proposal cites that Morgan Guaranty Trust Company of New York received its first tax-exempt client in 1913 and its first pension fund in 1940.

⁴³The RREEF Funds, "Aligning Manager's Interests with Their Investors," *Quarterly Strategic Outlook*, November 1992, Pg. 3

⁴⁴Please see Appendix 1 for list of current open and close-end commingled funds.

⁴⁵JMB Institutional Realty Corporation, "Structuring Pools for Real Estate Investment in the 1990's," *JMB Perspectives*, n.d., Pg. 8-9. This articles reviews existing vehicles in light of the primary structural issues that developed during the recession.

The open-end fund offered the advantage of dollar cost averaging investments because it continuously invested annual income throughout the real estate cycle. Further, it allowed investors to pool their contributions and reduce the business risk associated with buying properties individually. Investors new to real estate often had relatively little to invest. The commingled nature of the fund allowed smaller investors to gain the advantage of diversification. Managers also pointed out that investments in commingled funds improved upon the illiquidity of direct investment. The fund's substantial cash position due to its retention of net cash flow for reinvestment could also be used to repurchase shares. If investors desired, they could enter and leave the fund based on the appraised value of their units.

When the real estate market began its fall in the late 1980's, pension managers realized the fund could not fulfill several of its initial promises. The annual cash flow was not nearly enough to redeem shares for those who wanted to leave. Investment managers were caught in a tough situation: they could only liquidate assets at a substantial loss to benefit those leaving at the expense of those remaining in the fund. Precisely because investors wanted out when real estate values began to fall, the fund could not benefit by purchasing new assets at a discount.

CLOSED-END FUND. These funds were different from their open-end counterparts in that they were established for a defined period, often between seven

to fifteen years, and then liquidated.⁴⁶ Usually structured as a group trust or limited partnership, they raise capital at the inception of the fund only. Closed-end funds also distribute cash flow from their assets on a regular basis, usually quarterly, and begin to return principle from sales proceeds a few years before the fund is scheduled to be liquidated. However, due to the group trust structure, the transferability of these shares are often restricted.

The primary advantage of closed-end funds is that total returns are realized over a defined period based on a market mechanism, liquidation of the fund. Also, a large part of the total return is received annually, rather than upon sale in an open-end fund. At present, some investors feel this advantage is offset by the disadvantage of a short-term investment horizon. Closed-end funds cannot raise additional capital to take advantage of future opportunities. These potential opportunities primarily represent expansions of existing assets or capitalizing on inefficiencies in market pricing of assets.

SEPARATE ACCOUNT INVESTING. In addition to commingled vehicles, separate accounts were established by most advisors to execute custom investment strategies for investors with specific requirements. For example, a pension plan may prefer real estate investments within its community where they have unique knowledge

⁴⁶The RREEF Funds, "Aligning Manager's Interests with Their Investors," November 1992, Pg. 3. The article cites that RREEF offered the first closed-end fund in 1975.

of specific opportunities. A plan may also have sufficient assets to diversify business risk with its own allocation. The advantage of a separate account relationship is that the investor is given more control of the management process. The advisor's role shifts from reporting returns to presenting possible courses of action for approval.

While separate accounts do not have the enhanced diversification found in the commingled structure, a unique advantage is that investors have greater flexibility with regard to the investment and management process.

REAL ESTATE INVESTMENT TRUSTS(REITs). REITs were first authorized by Congress under the Real Estate Investment Trust Act of 1960. They are often called a portfolio of real estate operating properties because they act as intermediaries for investors who want to purchase real estate. The main advantage of REITs is their potential liquidity compared to direct investment.⁴⁷ Public REITs, registered with the Securities and Exchange Commission, are listed on the market and relatively liquid. However, REITs traded in the public market have historically shown a higher return correlation with bond and other stock movements. For this reason, some question their value to enhance diversification compared with direct real estate investments.

Some stock analysts are bullish on the establishment of a sufficiently large public real estate market. They cite that new issues offer self-advised REITs

⁴⁷In addition to their liquidity, REITs have advantages regarding UBIT and favorable tax treatment for foreign investors relative to other vehicles. However, the entity must consistently pass four tests to retain REIT status.

managed by some of the most successful private developers. Further, these companies are more attuned to maximizing shareholder value because their owners have less conflicts of interest. As long as the market capitalization of REIT stocks increases, their relative liquidity can only improve and their correlation with stocks may be reduced.⁴⁸ Others are less optimistic about the management quality of new issues.⁴⁹ Several large pension funds are interested in investing in public REITs although they currently see it as more of a stock investment.⁵⁰

Private REITs. Since the early 1970's, private REITs have become a popular vehicle among pension fund investment advisors. Similar to an open-end fund, REITs do not have to view real estate from a short- or near-term perspective and are able to expand their investments by issuing more shares when opportunities arise. Like closed-end funds, they return net cash flow annually. In addition to consolidating a variety of some of the primary advantages of commingled funds, the REIT corporate structure offers further improvements. REITs are governed by a Board of Directors

⁴⁸Lee Shallop, "Real Estate Investment Trust Analysis," (New York: J.P. Morgan Securities, July 1993), Pg. 4

⁴⁹Institutional Real Estate Universe," a supplement to Real Estate Capital Markets Report (Walnut Creek: Institutional Real Estate, May 1994), Pg. 34. The article points out that the average IPO yield has increased to 8.4% from 7.5% in 1993.

⁵⁰Lee Shallop, "Real Estate Investment Trusts," (New York: J.P. Morgan Securities, April 1994), Pg. 5. J.P. Morgan surveyed 30 of the 50 largest pension funds and found that eight (27%) actively bought public REITs, five said they were likely to buy soon (17%) while another five were thinking about investing (17%).

who are accountable to shareholders. They especially appeal to tax-exempt who incur UBIT on leveraged investments in more traditional vehicles.

CURRENT INVESTMENT MANAGEMENT ISSUES

With the development of closed-end funds and private REITs, several of the early issues raised by investors such as governance and transferability have been adequately addressed. However two issues remain unanswered.

REAL ESTATE VALUATION PROCESS. In the public market, daily price quotations represent traded values. In the private market, the appraisal process works as a substitute for this type of actual pricing. For commingle funds and private REITs, appraisals determine the price at which an investor enters and leaves the vehicle. It can also influence the advisor's fees. Investors are nervous that the appraisal process is open to the outside influences.⁵¹ In addition, the infrequency of appraisal can result in values that lag the actual market value. In declining markets, this creates a moral hazard for plans that realize they can benefit in real terms by leaving an overvalued fund. Some even suggest that the low correlation of direct real estate returns with those of stocks and bonds is due primarily to an infrequent

⁵¹This fear was underscored by the recent disagreement among executives at Prudential Realty Advisors regarding the values of several properties in its PRISA fund, the first and largest open-end commingled fund.

appraisal process.⁵² The ultimate alternative to this crisis lies in the formation of an exchange where shares in private funds can be evaluated for resale. There is an industry effort currently underway called "The Clearinghouse". The main objective of the Clearinghouse effort is to establish a real estate market mechanism that will price real estate interests.⁵³

MANAGEMENT FEES. A second issue that remains unresolved is the structuring of advisory fees. For their services, managers of the early commingled funds charge a flat annual fee for the amount of assets under their control.⁵⁴ As structured, these fees continued to pay advisors even after investors lost considerable value in their real estate investments. Considerable pressure was put on advisors to reduce their fees or shift to performance components.⁵⁵ A flat fee structure encourages the advisor to retain the property as long as possible in order to retain the fee.

⁵²Michael Torres, "Finding Answers to Real Estate in The Public Market," (Santa Monica: Wilshire Associates, September 1991)

⁵³Blake Eagle, "The Clearinghouse," Real Estate Finance (Spring 1994): Pg. 7-13

⁵⁴Reimbursable expenses on behalf of the manager are not included and they involve costs to organize and administer the fund.

⁵⁵Terry Williams, "Suit Blasts Copley Investment," *Pensions and Investment*, June 14 1993, Pg. 3. See Chapter IV for a detailed discussion of the four basic types of fees.

There is some question as to the legality of performance fees in an ERISA trust agreement. It could be argued that under this type of agreement the fiduciary works for his own interest and not the exclusive benefit of the plan. Advocates of performance fees argue that the manager's benefit from performance is not as important as long as it has been by acting in the plan's best interest. The fundamental concern of the Department of Labor (DOL) is to restrict the manager's ability to affect the timing and amount of compensation by manipulating sales. One way around this prohibition is the establishment of a Real Estate Operating Company (REOC) where investments are not considered plan assets. Another is to apply for a Prohibited Transaction Exemption (PTE) from DOL. Several types of performance fee structures on real estate assets have already been approved as PTE's.⁵⁶

CONCLUSIONS

Reviewed historically, the progression of investment vehicles demonstrate an evolution in the growing investment flexibility of the real estate investment management industry. Each vehicle offers advantages over its predecessors concerning issues facing the real estate investment management market at the time of the new vehicle's creation. Overtime, larger pension funds, investing in real estate since the early 1970's, have become more sophisticated in their understanding of real estate.

⁵⁶Herbert Krueger, "Reconciling Performance Fees for Pension Fund Real Estate Managers with ERISA," Real Estate Review (1991): Pg. 17 - 25

This trend has increased the popularity of independently advised vehicles, such as private REITs, where the investor can take a more active role in the investment management process. In turn, investment advisors are planning to expand their commingled client base to serve new smaller pension funds and additional institutional investors such as endowments, foundations, wealthy individuals, and foreign investors. Investors were certainly disappointed with the performance of direct investment vehicles in the recent recession. Several issues that they have raised, including concerns about valuation and fees, still remained unresolved. Reviewing the implications of these issues should be fundamental to those involved in the design of the new real estate investment management vehicles.

CHAPTER IV

CASE STUDY: NEW REAL ESTATE INVESTMENT VEHICLE PLANNING PROJECT AT J.P. MORGAN INVESTMENT MANAGEMENT

In January of 1994, senior executives at the Real Estate Investment Group (REIG) at J.P. Morgan Investment Management (JPMIM) felt the time was right to plan for a second investment vehicle. Before June, several stages of the process had already been completed by the VP of Marketing/Client Relations who was placed in charge of the new vehicle development process. Out of initial meetings with the company's legal council during this period, two types of vehicles, a private Real Estate Investment Trust (REIT) and a Delaware Business Trust (DBT), were chosen for further consideration.

In the choice of a new vehicle and the development of operating policy, several fundamental issues had to be researched. These issues included the determination of an investment strategy for the fund, the choice, of course, of an investment vehicle and the setting of fees. A prime consideration in planning involved the differentiation of the new fund from the existing business. The next chapter, Chapter V, analyses the relative value of several investment strategies that would differentiate the new vehicle.

This chapter covers the considerations involved in the choice of vehicle and fee structure. A section describing the REIG at JPMIM is included as background.

COMPANY BACKGROUND

J. P. Morgan Investment Management (JPMIM) is a registered investment advisor primarily to public, corporate, union employee benefit funds. It also serves other institutional investors such as foundations, endowments, insurance companies, and governments. The investment management company is a wholly owned subsidiary of J. P. Morgan & Co. (JPM). As a fiduciary, JPMIM manages over \$100 billion in assets divided among its three line divisions: Equity and Derivative Investment, Fixed Rate and Direct Investment, and International Investment. The company also contains three support divisions: Asset Allocation, Marketing, and Administration.

The Real Estate Investment Group (REIG) is one of five departments under Fixed Rate and Direct Investment. It acts as an investment advisor for those institutional investors interested in holding real estate assets in their portfolio. Most clients are pension trusts of JPMIM who seek the diversification advantage of allocating a portion of their investment to real estate. For these clients, the group offers the Real Estate Fund. Investors with large amounts to invest and specific goals are offered custom-designed investment programs.

REIG strategy is to add investment value by acquiring undervalued properties and enhancing annual returns and appreciation through active asset management.

The group has 28 professionals that work in acquisitions, asset management, financial, marketing/client relations or engineering. Equity research services are provided outside the group by departments both within JPMIM and at JPM. Acquisition candidates are introduced by a network of brokers and developers to the acquisitions staff who are assigned to cover targeted cities within a geographic region. Once a property is purchased, the asset management and financial groups are responsible for managing the investment. This process includes overseeing the on-site manager, reviewing leases, and operating and capital budgets. Portfolio strategy is reviewed weekly by the investment committee meeting.

The direct real estate equity investment strategy of the Real Estate Fund was established in 1970. Currently, the fund has over 130 participants.⁵⁷ These investors hold 41 property interests having an appraised net value of \$1.5 billion.⁵⁸ The fund's strategy is to participate in investments that typically involve a combination of leasing, renovation, expansion, repositioning, or redevelopment to a more productive use.

⁵⁷J. P. Morgan Investment Management, First Quarter 1994 Memorandum to All REIG Officers from Financial Group, April 18, 1994

⁵⁸J.P. Morgan Investment Management, "Real Estate Fund Annual Report", September 1993, Pg. 1

Investments are chosen based on their individual merit and no attempt is made to diversify the portfolio by property type or location. The fund value is comprised of approximately 40% retail and 35% office properties. Over 60% of its value is located in Eastern cities.⁵⁹ However, the fund uses a variety of investment structures that range from 100% equity to hybrid debt and sale-leasebacks.

JPMIM began a real estate separate account service in 1975. The amount under separate account management grew to \$762 million in 1983. Currently, the group manages eight separate account relationships totaling over \$100 million. The significant reduction in assets under separate account is due to a client agreement that allowed for transfer of asset management duties after the portfolio reached a critical mass for in-house management.⁶⁰

⁵⁹J.P. Morgan Investment Management, "Real Estate Fund Annual Report", September 1993, Pg. 5

⁶⁰Proposal to Los Angeles County Employees Retirement Association, J.P. Morgan Investment Management, December 1993, Pg. 3

VEHICLE CHOICE CONSIDERATIONS⁶¹

Out of initial meetings with the company's legal council, two types of vehicles, a private Real Estate Investment Trust (REIT) and a Delaware Business Trust (DBT), were chosen for further consideration. These vehicles were chosen primarily because of their ability to efficiently incorporate a variety of new investors besides pension funds. In the choice of a new vehicle and the development of operating policy, there are several fundamental issues that affect the advisor's ability to manage the fund. These issues - infinite v. finite life, governance, transferability, distribution policy, fees, and other smaller concerns - have been made acute by the recent recession. This section weighs the advantages and disadvantages of the two finalists.

INFINITE LIFE V. FINITE LIFE. Either a REIT or a DBT can be organized as an infinite or finite life vehicle so this decision does not effect the advisor's main choice. An infinite-life vehicle is preferred because it has the ability to offer shares on a continual basis. A fund that offers shares continuously or frequently has flexibility to take advantage of opportunities that arise over different points in the real estate cycle (i.e raising additional capital to invest at the cycle's floor). A finite-life fund issues shares usually only once, at inception and thus can not raise capital

⁶¹The contents of this section are based on a memo from the author to Harry Murray, Vice President of Marketing/Client Relations, JPMIM, July 11, 1994.

to take advantage of future opportunities. Further, there is a risk that liquidation of the fund will coincide with a depressed market. If liquidation occurs at the height of the market investors may not want to immediately reinvest. An infinite-life format appears to have a several advantages over that of a finite-life. Capital can be raised and invested at the most opportune time of the real estate cycle.

GOVERNANCE. JPMIM is subject to Federal banking regulations that restrict their ability as a bank to control an infinite-life mutual fund. Therefore, this decision relates to the infinite v. finite life choice.⁶² As a bank, JPMIM will only be entitled to have an observer on the Board of Directors. The Board can be staffed by either independent professionals or investors, but it must have the authority 1) to fire the advisor,⁶³ 2) to change the fund's investment policy, 3) to approve the issuance of new shares, 4) to approve the transfer of shares in a DBT, and 5) certain other rights.

As the Advisor, JPMIM will have authority to 1) invest on a discretionary basis consistent with the investment strategy, 2) formulate investment strategy and other business alternatives for approval by the Board (e.g. appraisal policy

⁶²Bank Holding Company regulations do not allow a bank or subsidiary of a bank holding company to control an infinite-life fund. Control is expressed by having a majority presence on the Board of Directors.

⁶³A substantial severance fee can be established to deter trustees in all but the most extreme circumstances, especially if a component of the fee is based on performance (i.e. Dryfus opportunity fund).

and a short list of appraisers), and 3) to present Board nominations to shareholders for approval.⁶⁴

In an internally-managed closed-end vehicle, JPMIM will be assured control over the investment strategy and acquisition approval processes. An advisory committee can be used to maintain the interests of investors. With approval from the Federal Reserve, it may be possible to issue and redeem shares on a quarterly basis over a 40-year life. However, a controlled closed-end fund will have significant investment restrictions.⁶⁵ The length of this approval process is also unclear.

TRANSFERABILITY. The REIT appears to have an advantage over the DBT primarily because of its popularity with investors for this reason. However, the DBT ability to subject transferability to qualified buyers or the approval of the Board is appealing to advisors who are nervous about maintaining the exclusivity of their fund. Interests in a REIT must be freely transferable so there can be no restrictions or consent requirements. Investors may sell their shares to anyone subject to fulfillment of the 5/50 and 100 shareholders rules. Pension funds have

⁶⁴David Snediker, of Paul, Hastings, Janofsky & Walker, Memorandum to Tim Heise and Harry Murray, J.P. Morgan Investment management, June 30, 1994

⁶⁵This restriction is from the Bank Holding Company regulations and would apply specifically with regard to investments above 5% in limited partnership, joint ventures and REIT shares.

"look-through" treatment for the 5/50 rule but they incur UBIT above ten percent ownership.⁶⁶ A DBT will have the ability to subject transfers of interest to the Board's approval of a qualified buyer if necessary. A policy that is attractive to the advisor as a tool to restrict an infamously demanding investor from entering the fund.

DISTRIBUTIONS. The DBT appears to have a significant flexibility over the REIT regarding distributions. Investors and their consultants favor real estate investment vehicles that distribute net cash flow. However, there is a concern that a REIT structure does not allow for retention of sufficient capital to fund improvements and expansions of existing assets. The REIT is required to distribute 95% of its income in order to avoid entity-level taxes.⁶⁷ Reinvestment can only be chosen on a shareholder by shareholder basis. The DBT has no restrictions on the retention of income.

INVESTMENT FLEXIBILITY. The DBT again appears more flexible than the REIT but neither vehicle offers a substantial advantage. REITs are restricted to investments in real estate assets, and the amount of gains they can realize quarterly from short-term holding periods. These two restrictions will not likely pose a problem

⁶⁶Traditional 3rd party and seller financed investments do not generate UBIT.

⁶⁷Depreciation creates a cash-flow cushion for capital reserves.

given a conservative investment strategy for the new vehicle.⁶⁸

LEVERAGE. The REIT has greater flexibility than the DBT in this area. In a DBT, the use of nontraditional leverage may result in Unrelated Business Income Tax (UBIT) for foundations.⁶⁹ This involves filing an extensive return for the foundation if it does not do so already. All things equal, foundations will prefer to invest in the REIT structure given the use of nontraditional leverage.

ADMINISTRATION. The DBT has less standard reporting requirements than the REIT. For a REIT, records must be maintained to assure compliance with one asset test annually and three income tests quarterly. A REIT is regulated like a corporation subject to entity-level taxes unless tax-free qualifying distributions are made. For a DBT, form K-1's must be prepared similar to all partnerships. The DBT is taxed as a partnership where gains and losses at the company level are passed through to investors.

CONCLUSION. An infinite-life format is clearly advantageous over a closed-end format due to the additional value that can be created by a longer investment

⁶⁸Please see Appendix 2 for detailed list of REIT investment restrictions.

⁶⁹Traditional 3rd party and seller financing are excluded while hybrid debt and earn-out purchases are not.

horizon and ability to raise additional capital. In either the REIT or the Business Trust format, the new fund will have to be run by a Board of Directors due to Federal banking regulations, and JPMIM officers will not be able to serve on the Board. While the REIT is clearly structured as an efficient investment vehicle, there is some concern regarding distribution and transferability requirements. Thus, a Business Trust may be preferred.

MANAGEMENT FEE CONSIDERATIONS⁷⁰

In choosing a fee structure for the new vehicle, the main objective is to align our interests with those of the investor without making the fee calculation too complicated. In order to achieve a greater alignment of interests, investors and their consultants favor fees that are more performance oriented. This means 1) less fees paid upfront, 2) less fees paid as a percentage of assets under management, and 3) less fees paid on unrealized gains based by appraised values.

⁷⁰The contents of this section are based on a memo to Harry Murray, Vice President of Marketing/Client Relations, JPMIM, July 26, 1994.

COMMINGLE REAL ESTATE FUND FEES. A review of existing commingled funds shows that the majority of fees are base fee structures.⁷¹ Consultants indicate that performance fees are becoming more popular.⁷² This is evidenced by the fact that several new private REITs are charging a three-part fee structure that includes 1) an upfront acquisition fee based on gross asset value, 2) participation in annual cash flow, and 3) a real return participation fee charged on asset sales and adjusted by previous sales.

The following discussion addresses the basic advantages and disadvantages of the four primary types of fees: 1) base fees, 2) cash flow performance fees, 3) real return performance fees, 4) acquisition/disposition and other service fees.

Base Fees. Base fees are typically calculated as a percentage of 1) net assets, or 2) contributed capital. The primary advantage of a base fee is that it is simple. However, base fees structures alone may discourage the advisor from selling assets and returning the proceeds. Base fees as a percentage of net assets are the most populous. This type has fallen out of favor with consultants recently primarily

⁷¹Please see Appendix 3 for details on Commingled Fund fees. This information is primarily from Evaluation Associate's quarterly Real Estate [Fund] Profiles which contains about 75% of the major investment managers.

⁷²Telephone Interviews with John Fantozi, Cambridge Associates and Peter Gregovich, Callan Associates, July 1994

because fees are subject to appraisals. Investors have concerns regarding the objectivity of the valuation process. Charging base fees as a percentage of contributed capital is the most popular type with consultants. Investor's do not have to pay fees on unrealized values. If adjusted for inflation, this fee closely resembles changes in the advisor's basic expenses over time. This fee should be based on the anticipated amount of leverage for the life of the fund. If the use of additional leverage is approved by investors, they should agree to a higher fee that reflects the additional management expense.

Cash Flow Performance Fees. Cash flow fees are usually calculated as 1) a percentage of annual cash flow, or 2) a percentage of annual cash flow above a nominal hurdle. This fee gives the manager the incentive to raise the annual yield. It also rewards the advisor for good performance on a timely basis. For this reason, advisors usually agree to make it a more significant portion of their fees. These fees are not foolproof. For real estate assets, the annual yield represents only approximately 75% of an investor's total return.⁷³ The concern of the investor is that it is possible for an advisor to receive annual bonuses for several years even though the fund does not realize its return objective. Further, it can encourage the advisor to squeeze the property for cash flow at the expense of needed capital improvements. However, an annual base fee/ performance fee structure is clearly an improvement

⁷³This percentage is based on the Russell-NCREIF's historical average since inception.

from a simple base fee structure. The advantage of a simple participation fee over the use of a hurdle is that a straight performance fee encourages the advisor to increase the investor's yield both above and below the hurdle rate.

Real Return Performance Fees. Real return performance fees are usually calculated as 1) a percentage of the final real rate of return, or 2) a percentage of the final real rate of return above the investor's real hurdle rate. This type of fee is theoretically the ideal bonus structure because the advisor is compensated based on the investor's actual total rate of return. For closed-end funds, these fees are received within a relatively reasonable time frame, within a 7 to 15-year period. They are calculated from the net proceeds received by the investor upon liquidation of the fund. For infinite-life funds, real return performance fees can only be calculated when assets are sold primarily because the fund is never liquidated. These fees are heavily discounted by the advisor of an infinite-life fund because there is no defined period for which this fee is realized. Further, investors who leave also must sell their shares according to appraised values. Private REITs have tried to resolve the imperfections of appraisal-based fees by agreeing to receive a portion of their performance bonus in stock.

Acquisition/Disposition Fees. These service fees are calculated as a percentage of the assets either bought/sold. The addition of these fees to the traditional base fee structure allows the advisor to charge for a particular service only when it is used.

The combination of acquisition and base fees are appropriate if the base fee is reduced. In the most recent private REIT offerings, acquisition fees are combined with performance fee arrangements. These fee structures should be popular as they closely match the advisor's expenses overtime and include a performance-oriented component. Disposition fees should fall out of favor as real return performance fees offer a clearer incentive for the advisor to sell assets at the highest price.

CONCLUSION. While real return performance fees at the fund-level are theoretically the ideal, in an infinite-life vehicle they are inaccurate where the sale of an investor's interest must be based on appraised values and impractical for the advisor since the investor's holding period is undefined. Cash flow fees at the fund-level are not perfect. They give the advisor a clear incentive to maximize the yield portion of the return only and may encourage property depreciation if not matched with a derivative real return fee. However, the consistent annual award encourages the advisor to place a significant portion of their total fees in a performance-based component.

CHAPTER V

FINANCIAL EVALUATION OF INSTITUTIONAL INVESTMENT STRATEGIES

The purpose of this chapter is to evaluate investment strategy alternatives of JPMIM's new vehicle. For investment managers, the primary measure of value is the real IRR to the client net of all fees and expenses. In order to compare the value of investment strategies, a cash flow model ("new fund model") was created by the author on spreadsheet software. The new fund model simulates returns at the level of the fund and incorporates net present value techniques. The strategies modelled are those expressed by the Real Estate Investment Group (REIG) at JPMIM. Their objective in establishing a new fund is two fold: to capitalize on current market opportunities and to differentiate the new fund from their existing Real Estate Fund. This chapter is organized into two sections. The first introduces the model and describes the underlying assumptions of a new fund with an opportunity-oriented investment strategy compared to the existing Real Estate Fund. The second section discusses the results of the model using these assumptions.

In evaluating the return of a real estate fund, it is useful to understand that there are two basic levels from which cash flows in a pooled fund. The primary level represents returns from the property to the investment advisor who represents the fund. The net operating income is received monthly. This amount comes from rents and expense recoveries for the month net of budgeted management and capital improvement expenditures. The asset returns of the entire portfolio are held by the advisor until time for distribution or reinvestment based on the policy of the fund. Distribution policy is often dependant upon the type of vehicle. Open-end funds reinvest cash flow from operations. If investors want to sell their interests in an open-end fund, they can be paid out of the uncommitted cash flow returns at the fund level. This procedure is akin to having the remaining investors buy the seller's interest. The shares can also be sold to another investor outside the fund. For a closed-end fund that distributes a significant percentage of cash flow, investors must sell their shares to recoup the principle before the fund's liquidation. Even though shares can be transferred, cash flow in a fund moves between three primary participants: the property, the advisor representing the fund, and the investor.

A portfolio of investments can be modeled in several ways depending upon the need for accuracy and tolerance for complexity. A combination Balance Sheet/ Statement of Cash Flows approach was determined by the author to be the most appropriate format after interviews at senior staff at REIG. A record of cash flow was instrumental in estimating the returns of a portfolio of assets acquired by the fund.

A balance sheet that tracks the capital invested becomes the basis for determining investor yields, performance-based fees, and weighing the value of returning capital.

As procedures for modeling the projected return of an institutional investment vehicle are not as standardized as those prescribed for evaluating an individual asset, the guidance of officers of REIG was also instrumental in determining the main variables of the model. From further discussions, the author learned that senior management wanted to test the value of several opportunity-oriented investment strategies. These strategies are the following.

1. Diversification into REIT equity securities
2. Leverage on direct real estate equity investments
3. Shorter-term asset holding periods
4. Reinvestment v. return of cash flow and capital
5. Performance fees

At the current time, most real estate professionals believe that the real estate market has finally hit bottom and begun a slow recovery. This recovery should be sequenced by product type with apartments, warehouse and regional malls leading the way and hotels, downtown offices and land bringing up the rear in 1996.⁷⁴ Consistent with this view, many investment managers are in the process of offering "opportunity funds" to institutional clients. These funds target their investments on properties

⁷⁴Emerging Trends in Real Estate: 1994, (Chicago: Equitable Real Estate Investment Management, October 1993): Pg. 3

and loans that can be bought at a significant discount to replacement cost or outstanding value.⁷⁵ The purchase discount is the result of the lack of private capital available in the real estate markets generally in the last three years. The REIG felt that the new fund's investment strategy could resemble that of an opportunity fund.

In order to justify the establishment of a new fund, management also knew that its investment strategy must be fundamentally different from that of the existing special situation fund. As highlighted in Chapter IV, the Real Estate Fund is an opportunity fund that seeks special investments where active asset management can add value. However, it only invests in direct real estate equity and does not use leverage. It also does not pay dividends. Further, its fees are based on the fair value of net assets according to appraisal. If they proved to have investment merit, the strategies listed above could differentiate the new vehicle from the existing Real Estate Fund.

⁷⁵DRA Private Placement Memorandum, Dryfus Realty Advisors, March 7, 1994. For example, the DRA Opportunity Fund projects an investment return above 15%. Sam Zell, a noted real estate and business entrepreneur has joined with Merrill Lynch to offer three closed-end commingled funds. The last of these funds closed in March 1994 with 25-30 investors. The strategy is to acquire properties at current market rents and then lease up the assets for sale and return of the proceeds to the investors.

MODEL ASSUMPTIONS⁷⁶

CAP AND GROWTH RATES. Real estate equity total rate of returns are projected using predetermined going-in and exit cap rates and an annual NOI growth rate. All new investments are made at a going-in cap rate. The resulting net cash flow is grown at an annual rate until time of sale. Sales prices are determined by dividing cash flow by an exit cap-rate.

<u>Direct Real Estate</u>	<u>Going-in CR</u>	<u>Growth</u>	<u>Exit CR</u>
Existing Special Situation Fund	8.5%	3.0%	9.5%
Opportunity New Fund	8.5%	3.0%	9.5%

REIT DISTRIBUTIONS AND TRANSACTION COSTS. REIT security investments are projected in a similar manner. The initial dividend from new a investment is determined using a going-in dividend yield. The resulting net cash flow is grown at an annual rate until time of sale, similar to a direct real estate investment. The sale price of the REIT investment is determined by dividing the cash flow by an exit dividend rate.

<u>REIT</u>	<u>Dividend</u>	<u>Growth</u>	<u>Trans. Costs</u>
Existing Special Situation Fund	8.5%	4.0%	0.40%
Opportunity New Fund	8.5%	4.0%	n/a

⁷⁶See Appendix 4 for an example of the results of a model run.

The fundamental difference between the real estate asset and REIT security projections involve the nature of how cap or dividend rates change over time. For real estate equity, a going-in/ exit-cap rate convention is used where the exit cap rate is usually 50 - 150 basis points above the going-in rate, depending upon the holding term of the property. This spread reflects a common technique to quantify the reduction in property value that results as a property ages. For REIT investments, the direction of the dividend rate is harder to project. In the model, this variable can remain constant over time or exhibit an up- or downward trend overtime. Both real estate equity and investment trusts have costs to complete a transaction. As one might expect, these costs are substantially higher for real estate equity investments.

DISTRIBUTIONS. The second set of variables essential to projecting the cash flow of the fund involve distributions and reinvestment alternatives. The Real Estate Fund reinvests all cash flow net of withdrawal requests by participants. This portion of the model looks at the relative value of several distribution scenarios by using a dividend yield variable. For example, the new fund could pay a constant or growing dividend from substantially all funds cash flow, similar to the public REIT market. Another option is to pay net cash flow after reserves similar to a closed-end fund.

	Annual Dividend	Dividend Growth
Existing Special Situation Fund	0.0%	0.0%
Opportunity New Fund	8.5%	2.5%

INITIAL INVESTMENT. In addition to using primary variables in projecting NOI at the asset level, the model incorporated several variables necessary to determining returns at the fund level. The first of three groups of these variables determine the initial size, composition and investment activity of the fund. The amount of contributed capital essentially determines the initial size of the fund. There are three choices for allocation for the initial capital - real estate equities, REIT securities, and cash which serves as a reserve.

	Real Estate	REITs	Cash
Existing Special Situation Fund	95%	0%	5%
Opportunity New Fund	75%	25%	5%

The real estate equity component can be leveraged with the caveat that additional leverage increases the size of the fund. For example, a \$500 MM fund with 75% allocated to real estate equity, which in turn is leveraged by 50% will increase the size of the fund to \$875 MM.

Once the fund size is chosen, the next step is to decide the period needed to complete initial investment. Given a certain capacity of the acquisitions department to invest per quarter, this calculation determines the time frame of initial contributions into the fund. On the other hand, if investment over a defined period is needed, an investment capacity constraint will limit the size of the fund. For example, if a \$500 MM fund must be invested in three years, \$73 MM in new purchases, approximately six direct property investments at \$15 MM on average will have to be purchased each quarter.

<u>(millions)</u>	<u>Fund Size</u>	<u>Alloc./Qtr.</u>
Existing Special Situation Fund	500	n/a
Opportunity New Fund	800	67

ASSET REINVESTMENT PROCESS. The asset reinvestment assumption, an implicit feature of the model, is best described by a review of the process. Additional purchases occur either after assets are sold or prior cash returns are reinvested through a reinvestment account. The sale of assets in the fund is simulated by selling a percentage of the funds direct real estate and REIT investments. The model sells a percentage of the current cash flow. When the cash flow of 'a property' or 'a share' is sold the proceeds are automatically entered into a holding account. Proceeds are held in this account for a specified number of quarters after which they are allocated for reinvestment. For example, once a property is sold, the manager may decide to invest 70% into direct real estate and the balance in REITs. Finding a qualified

investment may take six months in the private market and no time at all in the public market. Until that time, these proceeds earn a cash return. All net cash flow that is reinvested is also entered into the cash flow reserve account. When the cash reserve account reaches a specified maximum, say \$50 M or 10% of the initial capital invested, a specified amount, say \$25 M, is automatically transferred to the holding account for reinvestment within the specified quarters.

FINDINGS

Using base-case assumptions, I have projected a 10.0% nominal and 6.4% real IRR for the new fund with an opportunity-oriented investment strategy and a 9.5% nominal and 6.0% real IRR for the Real Estate Fund. Results point to four important qualifications of the 50 basis point spread. The first is that the addition of REIT securities to the portfolio adds incremental value although it assumes a higher constant growth rate of 4% consistent with historical levels.⁷⁷ A REIT allocation of 10% increases the IRR by 15 basis points in a 15-year hold scenario. Since the REIT market is of limited size, a higher than direct equity growth rate is only justified if a moderate amount of investments are made relative to the size of the portfolio.

⁷⁷The NAREIT index has a historical return of 15% for equity REITs. The assumption of less than 5 - 7% annual growth is not unrealistic.

The second qualification involves leverage of the direct real estate equity component of the portfolio. Leverage adds significant value to the IRR: 60% leverage increases the IRR by 130 basis points assuming the base case of a 75% portfolio allocation to direct real estate equity. This value can be traced in part to the use of consistent growth rates in modelling cash flows. The use of leverage will add value but not as much as projected.

The third qualification concerns the investment holding period. A short asset holding period subtracts significant value from the IRR. Increasing the asset holding period of the new fund to 15 years adds 135 basis points, raising the IRR to 11.4% and 7.9% assuming the base case of 50% leverage on direct real estate equity. This phenomena is partially due to the consistent 150 basis point spread between going-in and exit cap rates which did not change over shorter holding periods. However, there are also transaction costs to sell and repurchase assets and downtime between investments where the retained cash flow earns a lower rate of return.

The last qualification focuses on varying returns of capital over the life of the fund. Small constant dividend payments do not add value. Larger returns in early periods add incremental value, however this strategy is unrealistic because the investor does not pay the advisor to return capital early. Increasing returns over the life of the fund will add incremental value. For example, a growth rate of 2% on an 8% dividend adds 20 basis points.

While there are still significant values available, the conclusions above suggest that the time for opportunistic investing in the higher quality assets is for the most part over. The addition of REITs to the portfolio will add value using moderate allocations. And the use of leverage has merit. However, an opportunity-oriented strategy that involves shorter holding periods may not be as profitable as a longer term strategy.

Appendixes 1-3

Appendix 1. This two-page table lists general statistics on the majority of commingled funds currently available for investment today. The table is organized into three vehicle types: private REIT, open-end fund and closed-end fund. Statistics include the 1993 return, return since inception, fund level leverage, and policies.

Appendix 2. This outline documents the investment regulations for a Real Estate Investment Trust. It serves as an example of the regulatory restrictions that bear on commingled funds organized under a REIT format.

Appendix 3. This table lists the fee structures for the commingled funds listed in Appendix 1. There are only a few funds that have performance fee components to their fee structures.

Appendix 1

Existing Open and Closed Comingled Funds

over 200 MM gross asset value

14-Aug-94

Sorted by: Vehicle Type then Offering Date

Source: Evaluation Associates, Real Estate Profiles, 1993

Page 1 of 2

	Co.	Fund	(12/93)		Hist	93 return	Vehicle	Offering	Date	Term	(Curr.,Max.)	Invest	Property
			Net Asset	Offering									
1	Lasalle	Street Fund	585	450	5.2 (10)	-0.6	REIT	Dec-80	n/a		27%, <67%	divers	large
2	JMB	Endow. and Foundations II	98	121	4.9 (10)	4.4	REIT	Oct-83	15		44%, <33%	divers	medium
3	O'Connor	Retail Prop.	698	811	4.0 (7)	1.3	REIT	Dec-86	n/a		34%, <50%	spec	large
4	JMB	Endow. and Foundations III	119	161	0.7 (7)	6.1	REIT	Jan-86	15		41%, <33%	divers	medium
5	JMB	First Chicago Fund F	191	n/a	n/l	n/l	open	Sep-73	n/a		1%	divers	small-large
6	Met Life	Tower Fund	406	n/a	7.9 (10)	6.6	open	Jan-81	n/a		0%	divers	med-large
7	Prudential	PRISA II	606	n/a	7.4 (10)	6.4	open	Jul-80	n/a		13%	divers	large
8	Phoenix	RE Separate Account	201	n/a	6.4 (10)	3.4	open	Jun-81	n/a		0%	divers	small-med
9	Morgan	Real Estate Fund	1,526	n/a	6.2 (10)	5.3	open	Mar-71	n/a		3%	divers	large
10	Aetna	Partic. Mort. Separate Acc.	751	n/a	5.2 (10)	7.8	open	Mar-81	n/a		n/a	divers	med-large
11	Equitable	Prime Property Fund	2,912	n/a	4.9 (10)	4	open	Aug-73	n/a		13%, <25%	divers	large
12	CIGNA	Open-end Separate Acc.	485	n/a	4.2 (10)	3.1	open	Nov-81	n/a		3%, <30%	divers	med-large
13	Aetna	Real Estate Separate Acc.	1,177	n/a	3.5 (10)	1.4	open	Jan-78	n/a		0, <25%	divers	med-large
14	Prudential	PRISA	2,290	n/a	3.5 (10)	2.3	open	Jul-70	n/a		6%	divers	large
15	Coply	Developmental Properties	511	1,200	-1.2 (10)	-33.1	open	Mar-82	n/a		71%	divers	med-large
16	RREEF	USA I	264	757	n/l	n/l	close	Dec-79	10		0%	divers	large
17	L&B	90's Fund	new	new	n/a	n/a	close	Jan-93	25		limit 25%	divers	large
18	Schroder	Fund B	28	192	n/a	n/a	close	Jan-93	8-10		40%, <33%	spec	large
19	JMB	Group Trusts I	330	183	8.4 (10)	7.4	close	Sep-80	15		15%, <33%	divers	large
20	JMB	Group Trusts II	350	198	7.9 (10)	5.4	close	Dec-82	15		22%, <33%	divers	large
21	RREEF	USA III	679	757	4.7 (10)	5.5	close	Jan-84	10		0%	divers	large
22	Sentinel	Real Estate Fund	478	n/a	3.8 (10)	2.7	close	Dec-76	n/a		19%	divers	small-large
23	Heitman	RE Fund II	208	239	3.7 (8)	-8.4	close	Aug-84	15		32%, <50%	divers	large
24	RREEF	USA II	457	757	3.6 (10)	0.8	close	Sep-81	10		0%	divers	large
25	JMB	Group Trusts III	363	325	3.5 (9)	8.1	close	Apr-84	15		23%, <33%	divers	large
26	Aetna	Apart. Dev Fund I	131	200	3.5 (6)	4.8	close	Dec-86	7 (5)		53%, <50%	spec	med-large
27	Schroder	Fund A	153	162	3.3 (6)	9.4	close	Jan-86	7		30%, <33%	spec	large
28	Heitman	RE Fund IV	231	266	3.1 (5)	-0.3	close	Nov-87	15		10%, <50%	divers	large
29	L&B	Core Group Trust I	418	462	3.1 (4)	8.3	close	Sep-88	50		0%, 25%	divers	large
30	TCW	Realty Fund VI	375	375	2.7 (3)	6.2	close	Feb-90	10		4%, <50%	divers	med-large
31	Lasalle	Fund II	222	290	2.6 (9)	1.7	close	Feb-85	12		28%, <50%	divers	large
32	JMB	Group Trusts V	326	309	2.6 (5)	6.4	close	Apr-89	15		28%, <33%	divers	large
33	Lasalle	Fund III	338	413	1.2 (7)	0.9	close	Dec-86	12		3%, <50%	divers	large
34	TCW	Realty Fund III	147	216	-0.2 (8)	-6.3	close	Apr-85	10		30%, <50%	divers	med-large
35	TCW	Realty Fund IV	169	234	-1.1 (7)	-8.9	close	Nov-86	10		23%, <50%	divers	med-large
36	JMB	Apartment Partnership I	125	201	-1.5 (6)	8.5	close	Jun-87	10		43%, <50%	spec	large
37	JMB	Group Trusts IV	385	572	-2.0 (7)	-1.3	close	Feb-86	15		38%, <33%	divers	large
38	TCW	Realty Fund V	410	525	-2.7 (5)	-6.1	close	Dec-87	10		17%, <50%	divers	med-large
39	Lasalle	Fund IV	230	467	-5.9 (4)	0.5	close	Jul-89	12		20%, <50%	divers	large

Appendix 1
Existing Open and Closed Comingled Funds
over 200 MM gross asset value
Sorted by: Vehicle Type then Offering Date
Source: Evaluation Associates' Real Estate Profiles
Page 2 of 2 14-Aug-94

Co.	Fund	Lifecycle	1993 Property Portfolio	Price Range	Invest Struct.	Cash Flow Distrib.	Dist. Prd.	Withdrawal Amt.	Withdrawal Policy
1	Lasalle Street Fund	built/leased	Ret (30%), Off (75%), Range	n/l	equity, convertible mortgages	NCF & SP	4	NCF	NCF or Qualified buyer
2	JMB Endow. and Foundations II	built/leased	Ret (25%), Off (75%)	\$10 - 25 MM	equity primarily	NCF	4	n/a	Non-transferable
3	O'Connor Retail Prop.	built/leased	Retail	\$50 - 100 MM	equity/equity JV	NCF & SP	4	n/a	Qualified buyer
4	JMB Endow. and Foundations III	built/leased	Ret (95%), Off (5%)	\$10 - 25 MM	equity primarily	NCF	4	n/a	Non-transferable
5	JMB First Chicago Fund F	built/leased	n/l	\$5 - 40 MM	equity, convertible mortgages	none	n/a	NCF	Redemption in 12 mos.
6	Met Life Tower Fund	built/leased	Res(30%), Ind (50%), Range	\$10 - 30 MM	equity	none	n/a	NCF	Pro rata, NOTS
7	Prudential PRISA II	built	Res (30%), Off (50%), Range	n/l	equity/equity JV	none	n/a	NCF	Pro rata, 90-day notice
8	Phoenix RE Separate Account	devel/built	Ret (50%), Range	< \$20 MM	equity, land purchase leaseback	none	n/a	NCF	90-day notice
9	Morgan Real Estate Fund	full range	Ret (40%), Off (35%), Range	\$15 - 60 MM	full range	none	n/a	NCF	Pro rata, 45-day notice
10	Aetna Partic. Mort. Separate Acc.	built/redevel	Full range	n/l	sale leasebacks, equity	none	n/a	50% NCF	Sequential, NOTS
11	Equitable Prime Property Fund	built	Ret (60%), Off, Range	\$1 - 100 MM	equity	none	n/a	NCF	Pro rata
12	CIGNA Open-end Separate Acc.	built/leased	Full range	\$5 - 50 MM	equity/equity JV	none	n/a	NCF	Pro rata, 90-day notice
13	Aetna Real Estate Separate Acc.	full range	Full range	n/l	equity/equity JV	none	n/a	50% NCF	Sequential, NOTS
14	Prudential PRISA	built/leased	Full range	n/l	equity/equity JV	none	n/a	NCF	Pro rata, 90-day notice
15	Coply Developmental Properties	devel/redevel	Ind (40%), Range	n/l	equity JV	none	n/a	NCF	Pro rata
16	RREEF USA I	built/leased	n/l	> \$25 MM (O&R), > \$15 MM (I)	equity	NCF & SP	4	50% NCF	80-90% share
17	L&B 90's Fund	built/leased	Ret (3-50%), Range	n/l	equity	NCF	12	50% NCF	Qualified buyer
18	Schroder Fund B	built/leased	Full range	n/l	equity/equity JV	NCF, Cap > 4 yr	4	50% NCF	Qualified buyer
19	JMB Group Trusts I	built/leased	Ret (70%), Off (30%)	\$25 -75 MM	equity primarily	Trustees	2	n/a	Non-transferable
20	JMB Group Trusts II	built/leased	Ret (80%), Off (20%)	\$25 -75 MM	equity primarily	Trustees	2	n/a	Non-transferable
21	RREEF USA III	built/leased	Ret (70%), Range	> \$25 MM (O&R), > \$15 MM (I)	equity	NCF & SP	4	50% NCF	80-90% share
22	Sentinel Real Estate Fund	built/leased	Res (90%), Range	\$5 - 25 MM	equity	NCF & SP	4	n/a	Pro rata basis within 27 mos.
23	Heltman RE Fund II	built/% leased	Ret (50%), Off (35%), Ind	n/l	equity, mortgages	NCF & SP	4?	n/a	Pro rata, 30-day notice
24	RREEF USA II	built/leased	Ret (60%), Off (25%), Range	> \$25 MM (O&R), > \$15 MM (I)	equity	NCF & SP	4	50% NCF	80-90% share
25	JMB Group Trusts III	built/leased	Ret (75%), Off (25%)	\$25 -75 MM	equity primarily	Trustees	2	n/a	Non-transferable
26	Aetna Apart. Dev Fund I	devel	Apartments	\$8 - 45 MM	equity/equity JV	NCF & SP	4	n/a	Qualified buyer
27	Schroder Fund A	built/leased	Retail	Avg. \$55 MM	equity/equity JV	NCF & SP	4	50% NCF	Qualified buyer
28	Heltman RE Fund IV	built/% leased	Ret (60%), Range	n/l	equity, mortgages	NCF & SP	4?	n/a	Pro rata, 30-day notice
29	L&B Core Group Trust I	built/leased	Ret (55%), Off (45%)	n/l	equity	NCF	12	50% NCF	Qualified buyer
30	TCW Realty Fund VI	built/leased	Ret (80%), Ind (30%), Off	\$5 - 200 MM	equity, convertible mortgages	NCF & SP	>1	n/a	90% share
31	Lasalle Fund II	built/leased	Ret, Off (70%), Ind	n/l	equity, convertible mortgages	NCF & SP	4	n/a	Qualified buyer
32	JMB Group Trusts V	built/leased	Ret (45%), Off (30%), Range	\$25 -75 MM	equity primarily	Trustees	2	n/a	Non-transferable
33	Lasalle Fund III	built/leased	Ret, Off (70%), Ind	n/l	equity, convertible mortgages	NCF & SP	4	n/a	Qualified buyer
34	TCW Realty Fund III	built/leased	Ret, Ind (65%), Off	\$5 - 200 MM	equity, convertible mortgages	NCF & SP	>1	n/a	90% share
35	TCW Realty Fund IV	built/leased	Ind (35%), Off (40%), Ret	\$5 - 200 MM	equity, convertible mortgages	NCF & SP	>1	n/a	90% share
36	JMB Apartment Partnership I	built/leased	Apartment	\$5 - 60 MM	equity primarily	NCF	4	n/a	Non-transferable
37	JMB Group Trusts IV	built/leased	Ret (30%), Off (55%), Ind	\$25 -75 MM	equity primarily	Trustees	2	n/a	Non-transferable
38	TCW Realty Fund V	built/leased	Ret (40%), Off (40%), Ind	\$5 - 200 MM	equity, convertible mortgages	NCF & SP	>1	n/a	90% share
39	Lasalle Fund IV	built/leased	Ret, Off (55%)	n/l	equity, convertible mortgages	NCF & SP	4	n/a	Qualified buyer

Appendix 2
REIT Investment Restrictions

Source: Tim Haight, REITs: New Opportunities in Real Estate Investment Trusts
(Chicago: Probus, 1987)

"Real estate assets" include real property and its interests, mortgages on real property, shares in other REITs, and regular and residual interests in real estate mortgage investment conduits (REMICS). There is one asset test (annually) and three income tests (quarterly).

1. At least 75% of gross asset value (GAAP) must be in real estate assets, cash or equivalent, and government securities.

For those assets not includable under 75% asset test:

- a) less than 25% of fund's assets in securities
 - b) less than 5% of fund's asset value in securities of any one issuer, and
 - c) less than 10% of fund's asset value in voting securities of any one issuer
2. At least 75% of Gross Income must be derived from the following:
 - a) real property rents for services customarily provided to tenants
 - b) interests on or secured by obligations in real property
 - c) gain from sale of real property except for inventory property
 - d) dividends and gains from other REITs
 - e) property tax refunds and abatements
 - f) income and gains from foreclosed property
 - g) certain ST investments of new capital
 3. At least 95% of Gross Income must be derived from the 'real estate assets' above, and passive dividend and capital gain sources
 4. Less than 30% of Gross Income can be from sale of the following:
 - a) stock or securities held for less than 1 year,
 - b) real estate held < 4 years (so cannot generally develop property for sale)

Appendix 3

Existing Comingled Fund Fees

funds over 200 MM gross asset value

Sorted by: Vehicle Type then Offering Date

Source: Evaluation Associates' Real Estate Profiles, 4th Qtr 1993

Page 1 of 1

14-Aug-94

		(12/93)										
Co.	Fund	Net Asset	Vehicle	Offering	Term	(Curr.,Max.)	Base fee	Perf. fee	Acq./	Admin. fee		
		Size	Type	Date		Leverage			Disp. fee			
1	Lasalle	585	REIT	Dec-80	n/a	27%, <67%	125 bp first \$250 MM, 95 bp next \$250 MM, 65 bp after	n/a	n/a	n/a		n/a
2	JMB	98	REIT	Oct-83	15	44%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
3	JMB	119	REIT	Jan-86	15	41%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
4	O'Connor	698	REIT	Dec-86	n/a	34%, <50%	50 bp adj. by CPI	15% of NCF & SP > 9% ann., 25% if > 13	1.0%/1.0%	n/a		n/a
5	Prudential	2,290	open	Jul-70	n/a	6%	115 bp first \$50 MM, 100 bp next \$100 MM, 80 bp after	n/a	n/a	n/a		n/a
6	Morgan	1,526	open	Mar-71	n/a	3%	125 bp of FV	n/a	n/a	n/a		n/a
7	Equitable	2,912	open	Aug-73	n/a	13%, <25%	115 bp first \$10 MM, 100 bp next \$15 MM, 80 bp after	n/a	n/a	n/a		n/a
8	JMB	191	open	Sep-73	n/a	1%	125 bp of FV	n/a	n/a	n/a		n/a
9	Aetna	1,177	open	Jan-78	n/a	0, <25%	75 bp for first \$100M, 60 bp after	7.5 % > 3% real IRR	n/a	n/a		prog., @10 bp
10	Prudential	606	open	Jul-80	n/a	13%	115 bp first \$50 MM, 100 bp next \$100 MM, 80 bp after	n/a	n/a	n/a		n/a
11	Met Life	406	open	Jan-81	n/a	0%	125 bp first \$10MM, 100 bp after	n/a	n/a	n/a		n/a
12	Aetna	751	open	Mar-81	n/a	n/a	75 bp	n/a	n/a	n/a		prog., @10 bp
13	Phoenix	201	open	Jun-81	n/a	0%	125 bp of FV	n/a	n/a	n/a		n/a
14	CIGNA	485	open	Nov-81	n/a	3%, <30%	100 bp	n/a	n/a	n/a		n/a
15	Coply	511	open	Mar-82	n/a	71%	125 bp of FV	n/a	n/a	n/a		n/a
16	Sentinel	478	close	Dec-76	n/a	19%	200 bp first \$25 MM, 150 bp next \$35 MM, 100 bp after	25% > 9% annually	2% Offer.	n/a		n/a
17	RREEF	264	close	Dec-79	10	0%	120 bp of FV	n/a	n/a	n/a		n/a
18	JMB	330	close	Sep-80	15	15%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
19	RREEF	457	close	Sep-81	10	0%	120 bp of FV	n/a	n/a	n/a		n/a
20	JMB	350	close	Dec-82	15	22%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
21	RREEF	679	close	Jan-84	10	0%	120 bp of FV	n/a	n/a	n/a		n/a
22	JMB	363	close	Apr-84	15	23%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
23	Heitman	208	close	Aug-84	15	32%, <50%	100 bp of FV	n/a	1% > \$40 MM / 1% > \$20	n/a		n/a
24	Lasalle	222	close	Feb-85	12	28%, <50%	125 bp first \$250 MM, 95 bp next \$200 MM, 65 bp after	n/a	n/a	n/a		n/a
25	TCW	147	close	Apr-85	10	30%, <50%	120 bp of FV	10% > 10% annually	n/a	n/a		n/a
26	Schroder	153	close	Jan-86	7	30%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
27	JMB	385	close	Feb-86	15	38%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
28	TCW	169	close	Nov-86	10	23%, <50%	120 bp of FV	n/a	n/a	n/a		n/a
29	Aetna	131	close	Dec-86	7 (5)	53%, <50%	58 bp and 20 bp on cash	n/a	1.5%/1.0%	n/a		prog., @10 bp
30	Lasalle	338	close	Dec-86	12	3%, <50%	125 bp first \$250 MM, 95 bp next \$250 MM, 65 bp after	n/a	n/a	n/a		n/a
31	JMB	125	close	Jun-87	10	43%, <50%	n/a	15% of NCF	1.0% Offer./15% > Princ.	n/a		n/a
32	Heitman	231	close	Nov-87	15	10%, <50%	100 bp of FV	n/a	1% > \$40 MM / 1% > \$20	n/a		n/a
33	TCW	410	close	Dec-87	10	17%, <50%	120 bp of FV	n/a	n/a	n/a		n/a
34	L&B	418	close	Sep-88	50	0%, 25%	85 bp of FV	n/a	n/a	n/a		n/a
35	JMB	326	close	Apr-89	15	28%, <33%	125 bp of FV	n/a	n/a	n/a		n/a
36	Lasalle	230	close	Jul-89	12	20%, <50%	125 bp first \$250 MM, 95 bp next \$250 MM, 65 bp after	n/a	n/a	n/a		n/a
37	TCW	375	close	Feb-90	10	4%, <50%	120 bp of FV	n/a	n/a	n/a		n/a
38	L&B	new	close	Jan-93	25	limit 25%	100 bp for < \$5 MM, 90 bp for < \$10 MM, 80 bp for > \$10 MM	3.5% of Revenue	n/a	n/a		35 bp of cost
39	Schroder	28	close	Jan-93	8-10	40%, <33%	90 bp of FV	n/a	1.0%	n/a		n/a

72

Appendix 4

Appendix 4. This three-page exhibit shows an example run of the new fund's financial model. Variables listed on page 1 of the Appendix are entered. These variables determine the balance sheet and cash flow numbers on a quarterly basis in the main spreadsheet. An annual projection is then determined using a similar format to aggregate the quarterly values in the main spreadsheet for presentation.

Appendix 4

Model Variables

New Investment Vehicle Project

Page 1 of 3

14-Aug-94

I. Fund Size, Composition, and Allocation:

Contributed Capital 500,000

Portfolio Weights	Wght.		Levg.	Fund Size	%/Qtr.	Alloc./Qtr.	Alloc./Yr.	Cap./Qtr.	Cap./Yr.	Qtrs.	Yrs. to Alloc
RE Equities	75%	375,000	50%	750,000	8.35%	62,625	250,500	31,313	125,250	11.98	2.99
REITs	20%	100,000	0%	100,000	8.35%	8,350	33,400	8,350	33,400	11.98	2.99
Cash	5%	25,000	N/A	25,000	8.35%	2,088	8,350	2,088	8,350	11.98	2.99
				875,000		73,063	292,250	41,750	167,000		

II. Asset Returns and Fund Yields:

1. RE Equity

Going-in Cap Rate	8.50%
Exit Cap Rate	9.50%
C.F. Growth Rate	4.00%
Capital Reserve (% of RE Asset bal.)	0.00%
Purchase Costs	1.00%
Sale Costs	2.50%

2. REIT

Annual Dividend	8.50%
Divid. Rate Apprec.	2.00%
Dividend Apprec.	4.00%
Purchase Costs	0.40%
Sale Costs	0.40%

3. Cash

Annual Return	4.50%
---------------	-------

4. Dividend Yield

Fund Dividend	8.50%
Dividend Apprec.	0.00%
7-year Yield	8.50%
15-year Yield	8.50%
17-year Average	8.50%

III. Fees:

1. A.M. Fee

A. New Fund (% of Contributed Capital)	
RE Equity	1.30%
REIT	1.30%
Cash	0.15%
B. Existing Fund (% of Appraised Value)	
RE Equity (+ REIT)	0.00%
Cash	0.00%

2. Cash Flow Perf. Fee

RE Equity	
Cash Flow hurdle	8.00%
Part. above hurdle	10.00%
REIT	
Cash Flow hurdle	same
Part. above hurdle	same

3. Capital Gain Perf. Fee

RE Equity & REIT	
Real IRR hurdle	5.00%
Part. above hurdle	10.00%

IV. Other

Inflation	3.50%
Reinvestment Hold	6 months
Initial Cost of Debt	8.75%
C.O.D. Growth	0.00%
7-year Cost	8.75%
15-year Cost	8.75%
17-year Average	8.75%
Nominal IRR	10.60%
Real IRR	7.04%

Appendix 4

Projection of Individual Asset Yield and Fee Structure -

New Investment Vehicle Project
Page 2 of 3 14 Aug 94

Closed-end Fund
75% RE Equity at 50% Leverage, 20% REIT Securities
7-year Hold, 3-year Phase-in & 1-year Phase-out
32% Annual Rollover in Yr. 7 - 9
Net Cash Flow Distributed

Year	Inflation Prd.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
		1	2	3	4	5	6	7	8	9	10
Contributed Capital											
RE Equities		125,250	250,500	375,000	375,000	375,000	375,000	375,000	375,000	375,000	375,000
REIT		33,400	66,800	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Cash		8,350	16,700	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Total Original		167,000	334,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Capital Balance											
RE Equities		125,250	250,500	375,000	375,000	375,000	375,000	302,620	227,068	174,875	35,591
REIT		33,400	66,800	100,000	100,000	100,000	100,000	80,699	60,552	46,633	9,491
Cash		8,350	16,700	25,000	25,000	25,000	25,000	20,175	15,138	11,658	2,373
Current Capital		167,000	334,000	500,000	500,000	500,000	500,000	403,493	302,758	233,166	47,454
Base Asset Management Fee											
A. New Fund											
(% of Capital balance)		1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
(% of Asset value)		0.81%	0.79%	0.77%	0.75%	0.74%	0.71%	0.70%	0.73%	0.78%	0.78%
B. Existing Fund											
(% of Capital balance)		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(% of Asset value)		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Asset Balance											
RE Equities		250,500	501,000	750,000	750,000	730,233	726,765	580,710	416,017	298,031	0
REIT		33,400	66,800	100,000	100,000	98,013	100,138	81,686	58,520	41,923	0
Cash (plus cash flow)		8,350	16,700	25,000	25,000	25,000	25,000	25,000	25,000	25,000	0
Asset Rollover		0	0	0	0	17,443	24,008	6,217	0	0	0
Total		292,250	584,500	875,000	875,000	859,121	858,034	687,396	499,536	364,954	0
RE Equity											
Appraised Value		225,241	459,627	702,202	730,715	738,531	759,048	614,778	439,563	314,240	0
Cum. Debt Capital		125,250	250,500	375,000	375,000	365,117	363,383	290,355	208,008	149,016	0
Cost of Debt		8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%	8.75%
REIT											
Appreciated Value		33,769	68,909	105,276	109,551	111,368	117,118	96,717	69,157	49,440	0
Less: Shares value sold		0	0	0	0	-4,103	-5,607	-26,759	-25,219	-18,030	-45,422
Net Share Value		33,769	68,909	105,276	109,551	110,010	115,689	88,975	63,622	45,483	0
Dividend Yield		8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%	8.50%
RE Equity and REIT Asset Rollover											
Avg. Wght. %		70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
70.00% RE Equity		30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%	30.00%
30.00% REIT		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0.00% Cash											
Projected Cash Flow											
RE Equity		3,979	14,839	26,141	33,858	34,892	35,444	34,527	25,865	18,491	13,219
RE Leverage Value		-131	-230	112	1,046	2,386	3,556	4,331	3,348	2,360	1,663
REIT		1,067	3,981	7,013	9,084	9,361	9,649	9,617	7,282	5,206	3,722
Cash		141	517	892	1,125	1,319	1,657	1,471	1,125	1,125	281
Total Cash Flow		5,056	19,107	34,159	45,113	47,959	50,307	49,945	37,619	27,183	18,885
Capital Exp. Reserve											
Net Cash Flow		0	0	0	0	0	0	0	0	0	0
(net of A.M. fee and Cap. Ex.)		4,278	16,254	29,231	38,900	41,747	44,094	44,037	33,111	23,770	16,342
Cash Flow Perf. Fee:											
Cash Flow Return Hurdle		5,010	18,370	31,730	40,000	40,000	40,000	38,040	29,026	21,972	16,377
C.F. Perf. Participation		0	0	0	1	175	409	600	408	180	22
Distributable Cash Flow											
% of Net Cash Flow		63%	85%	86%	86%	87%	87%	87%	87%	87%	86%
J.P. Annual Fees											
(A.M. and Cash Flow Perf. fees)		778	2,853	4,928	6,214	6,387	6,622	6,508	4,917	3,592	2,566
Averages											
1.25% of Nominal Capital		0.93%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
0.75% of Asset Value		0.59%	0.78%	0.78%	0.77%	0.77%	0.77%	0.76%	0.76%	0.76%	0.75%
57.29% of Nominal Income		46.31%	61.47%	60.93%	60.39%	59.85%	59.33%	58.81%	58.29%	57.78%	57.27%
Year											
Inflation Prd.		1	2	3	4	5	6	7	8	9	10
Rollover %											
RE Equities		0%	0%	0%	0%	5%	5%	32%	32%	32%	116%
REIT		0%	0%	0%	0%	5%	5%	32%	32%	32%	116%
Gross Sales price											
RE Equities (inc. RMB)		0	0	0	0	38,198	38,802	241,905	181,215	129,555	326,507
REIT		0	0	0	0	5,478	5,678	32,431	23,191	16,579	41,783
Net Sales Price											
RE Equities (after RMB)		0	0	0	0	18,792	19,632	131,270	100,926	72,043	181,250
REIT		0	0	0	0	5,456	5,655	32,301	23,098	16,513	41,616
Nominal NSP		0	0	0	0	24,248	25,287	163,571	124,024	88,556	222,867
Capital Gain Perf. Fee:											
Real NSP		0	0	0	0	20,637	20,784	129,905	95,176	65,630	158,993
Real IRR Hurdle Surplus		0	0	0	0	9,314	9,380	58,631	42,956	29,621	71,759
Capital Gain Perf. Fee		0	0	0	0	931	938	5,863	4,296	2,962	7,176
(% of Capital balance)		0.00%	0.00%	0.00%	0.00%	0.75%	0.75%	4.93%	4.73%	4.30%	14.81%
(% of Asset value)		0.00%	0.00%	0.00%	0.11%	0.43%	1.00%	2.57%	2.39%	2.27%	7.80%
J.P. Fees											
(% of Capital balance)		0.93%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%	1.24%
(% of Asset value)		0.59%	0.78%	0.78%	0.77%	0.77%	0.77%	0.76%	0.76%	0.76%	0.75%

Appendix 4

Projection of Individual Asset Yield and Fee Structure -

New Investment Vehicle Project
Page 3 of 3 14 Aug 94

Closed-end Fund
75% RE Equity at 50% Leverage, 20% REIT Securities
7-year Hold, 3-year Phase-in & 1-year Phase-out
32% Annual Rollover in Yr. 7 - 9
Net Cash Flow Distributed

Year	Inflation Prd.	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
		1	2	3	4	5	6	7	8	9	10
Cash Flow Distribution:											
Net Cash Flow		4,278	16,254	29,231	38,899	41,572	43,685	43,437	32,702	23,590	16,319
Dividend Hurdle		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Dividend Yield		0	0	0	0	0	0	0	0	0	0
Distributable CF Surplus		4,278	16,254	29,231	38,899	41,572	43,685	43,437	32,702	23,590	16,319
% Reinvest		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Div. Deficit covered w/Cash		4,278	16,254	29,231	38,899	41,572	43,685	43,437	32,702	23,590	16,319
Asset Sale Distribution:											
Distributable CG Surplus		0	0	0	0	23,316	24,349	157,708	119,728	85,594	215,691
Capital Gain Surplus Allocation		75%	100%	100%	100%	100%	100%	0%	0%	0%	0%
Reinvest		0	0	0	0	23,316	24,349	0	0	0	0
Return to Capital		0	0	0	0	0	0	157,708	119,728	85,594	215,691
Total Reinvest:											
Cash Flow		0	0	0	0	0	0	0	0	0	0
Asset Sale		0	0	0	0	23,316	24,349	0	0	0	0
Total Return of Capital:											
Cash Flow		4,278	16,254	29,231	38,899	41,572	43,685	43,437	32,702	23,590	16,319
Asset Sale		0	0	0	0	0	0	157,708	119,728	85,594	215,691
Cash Reserve		0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
		0	0	0	0	0	0	0	0	0	25,000
Total Real Value		0	0	0	0	0	0	157,708	119,728	85,594	240,691

Year	Inflate. Prd.	Net Nominal / Real IRR & NPV									
		1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
		1	2	3	4	5	6	7	8	9	10
Invest Capital	nominal	-167,000	-167,000	-166,000	0	0	0	0	0	0	0
	real	-163,410	-157,813	-151,508	0	0	0	0	0	0	0
Return Capital		0	0	0	0	0	0	157,708	119,728	85,594	240,691
		0	0	0	0	0	0	125,248	91,879	63,435	171,985
Return Cash Flow		4,278	16,254	29,231	38,899	41,572	43,685	43,437	32,702	23,590	16,319
		4,156	15,328	26,643	34,277	35,381	35,905	34,500	25,095	17,482	11,682
		0	0	0	0	0	0	0	0	0	0
Total Return		-162,722	-150,746	-136,769	38,899	41,572	43,685	201,146	152,431	109,184	257,010
		-159,254	-142,485	-124,865	34,277	35,381	35,905	159,748	116,974	80,917	183,667
Nominal IRR		10.61%									
Real IRR		7.05%									

BIBLIOGRAPHY

BOOKS

Bruce Brian, ed. Real Estate Portfolio Management (Chicago: Probus, 1991)

Eagle Blake, Revisiting the Case for Pension Fund Investment in Real Estate (Tacoma: Frank Russell Company, 1990)

Hudson-Wilson Susan and Wurtzbach Charles, ed. Managing Real Estate Portfolios (New York: Irwin, 1994)

ARTICLES

"Advisor's See Opportunity To Increase Fund's Real Estate Involvement," National Real Estate Investor (March 1994)

Black Thomas, "The Restructuring of Commercial Real Estate Finance" in ULI On The Future (1994)

Downs Anthony, "The Fundamental Shift in Real Estate Finance from a Capital Surplus in the 1980's to a Capital Shortage in the 1990's," (New York: Solomon Brothers Bond Market Research-Real Estate, February 1991)

Eagle Blake, "The Clearinghouse," Real Estate Finance (Spring 1994)

Emerging Trends in Real Estate: 1994, (Chicago: Equitable Real Estate Investment Management, October 1993)

Frantz James, "Investors Again Consider Real Estate a Favorable Asset Allocation", National Real Estate Investor (April 1994)

Institutional Real Estate Universe," a supplement to Real Estate Capital Markets Report (Walnut Creek: Institutional Real Estate, May 1994)

JMB Institutional Realty Corporation, "Structuring Pools for Real Estate Investment in the 1990's," *JMB Perspectives*, n.d.

Kelso David, "The Hard Lessons of Commercial Real Estate," The Bankers Magazine (July/August, 1992)

BIBLIOGRAPHY (cont'd)

King Donald and Young Michael, "Why Diversification Doesn't Work" (San Francisco: The RREEF Funds, Summer 1994)

Krueger Herbert and Occhino Lennine, "Reconciling Performance Fees for Pension Fund Real Estate Managers with ERISA," Real Estate Review (Fall 1991)

The RREEF Funds, "Aligning Manager's Interests with Their Investors," *Quarterly Strategic Outlook*, November 1992

Roulac Stephen, "Surf's Up: Investors Ride the Fifth Wave of Securitization," Real Estate Capital Markets Report Vol. III, No. 4 (Spring 1994)

Shallop Lee, "Real Estate Investment Trust Analysis," (New York: J.P. Morgan Securities, July 1993)

Shallop Lee, "Real Estate Investment Trusts," (New York: J.P. Morgan Securities, April 1994)

Torres Michael, "Finding Answers to Real Estate in The Public Market," (Santa Monica: Wilshire Associates, September 1991)

Williams Terry, "Suit Blasts Copley Investment," *Pensions and Investment*, June 14 1993

Wheaton William, The U.S. Real Estate Market: An Economic Outlook for the 1990's (Cambridge: MIT Center for Real Estate, 1993)

Wood Maria, ed., "Portfolio Management Strategies," Real Estate Forum (March 1994)

Wurtzbach Charles, "Assembling an Equity Real Estate Portfolio", in Real Estate Portfolio Management, ed. Brian Bruce (Chicago: Probus, 1991)

Wurtzbach Charles and Ludgin Mary, "Constructing an Efficient Real Estate Portfolio" (Chicago: JMB Institutional Realty, Spring 1993)

Zinngrabe Claude, "Real Estate Investment by Insurance Companies," Urban Land (March 1994)

BIBLIOGRAPHY (cont'd)

UNPUBLISHED MATERIALS

J. P. Morgan Investment Management, First Quarter 1994 Memorandum to All REIG Officers from Financial Group, April 18, 1994

J.P. Morgan Investment Management, Proposal to Los Angeles County Employees Retirement Association, December 13, 1993

J.P. Morgan Investment Management, "Real Estate Fund Annual Report," September 1993

Snediker David, of Paul, Hastings, Janofsky & Walker, Memorandum to Tim Heise and Harry Murray, J.P. Morgan Investment Management, June 30, 1994