An Examination of the Intangible Business Component of Commercial Real Estate Investments

by

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Submitted to the Department of Architecture
in Partial Fulfillment of the Requirements
for the Degree of

Master of Science in Real Estate Development

at the

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Abstract

This paper identifies the operating business component of investing in real estate, its importance in property operations, and how it is priced at both the portfolio level and the property level. The thesis of this paper is that real estate is an operating business which renders it both an asset class within the investment world and a distinct business area within the real economy. The broadening scope of real estate management has made property and asset managers more like CEO's able to control and add value to individual properties through comprehensive strategic planning and marketing.

Business operations affect market equilibrium in both the capital and property markets. Superior real estate management can facilitate an atmosphere that is less sensitive to rent levels thereby making demand more elastic. Strategic planning and repositioning by asset managers can maintain the marketability of existing space thereby increasing the economic life of real estate. Both of these impacts in the space market can reduce the perceived risk of assets in the capital market.

The intensity of business operations for real estate were examined through an examination of real state investment trusts (REITs) and public real estate companies (RECs). Similar business management expenses are incurred in all REITs both at the property level and portfolio level. Through a multiple regression analysis, expenses related to business management are less for real estate by approximately 2% of fixed assets. However, advisory fees displayed diseconomies of scale indicating that a multi-asset portfolio of real estate is similar to a large conglomerate of small businesses requiring increasingly more sophistication and personnel. Although the quality of individual managers is difficult to quantify, the importance of management in pricing was confirmed through a survey of industry analysts.

Thesis Supervisor: Marc Louargand
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To Julia,

whose support, devotion, sacrifice, and above all, patience and understanding

helped me through this disruptive year in our lives.

Chapter 1
Introduction

1.1 Purpose

Increasingly, investors are reexamining commercial real estate as an investment in an operating business as well as in an asset class. This has sparked a debate over the role of real estate in a multi-asset portfolio and the importance of asset management to the success of an investment in real estate. Commercial real estate straddles two markets: the market for space and the market for capital. The space market is a business, subject to forces of supply and demand, which requires a great deal of human capital to maintain its fiscal well-being. Like any other business, investment real estate is an operation where products and services (space and amenities) are created to satisfy customers (tenants). The purpose of this thesis is to identify the intangible business component of real estate investing, its importance, and to research how it is priced at both the portfolio level and the property level.

1.2 Overview of Literature

An overview of the literature reveals an increasing awareness of the complexity of the real estate industry and its multifaceted role in the market. Of particular importance is a new awareness of the extent of human capital necessary to maintain the performance of the investment. Property and asset management are only now being appreciated as vital functions for maintaining and enhancing property value. Real estate is viewed as having investment and operating characteristics which renders it both an asset class within the investment world and a distinct business area within the real economy.[1] As a result the role of the asset manager is being redefined with a broader scope. Part of this is an emphasis on strategic planning, market acceptance, and long-term growth for value enhancement. This

[1]Grossman, Charles, "A Second Look." Real Estate for Pension Professionals, p.1.

study synthesizes industry and academic literature on the necessary intangible element of value "maintenance" of real estate investments.

Chapter 2 addresses the complexity of the investment class. Real estate is a long-term, relatively illiquid investment that must continually adapt to an ever-changing market. It has far-reaching economic and social impacts; therefore, it is highly regulated. Industry professionals are becoming more sophisticated to handle new challenges. Risk characteristics unique to the investment require more owner involvement than any other investment in a multi-asset portfolio.

Chapter 3 looks at the markets for commercial real estate and how they are interrelated. A static economic model devised by DiPasquali and Wheaton is used to show how markets reach equilibrium and how owner involvement and business expertise is implicit in this model. It will be used to demonstrate graphically where and how business management can affect investment performance of the asset and what it means to market equilibrium.

Chapter 4 looks specifically at the operating business component of real estate. It describes what it is and how asset management relates to it. Real estate management literature points out that real estate management is no different from any other business management. Real estate is a going concern or a business entity actively providing goods and services to customers. The chapter will also look at the changing role of real estate management from glorified rent collectors to sophisticated business managers functioning as surrogate owners. The chapter concludes with a description of the management process and how value can be maintained and even added through this property function.

1.3 Method

This thesis begins with comprehensive secondary research. It consists of a review of finance and real estate literature from a variety of academic and real estate trade journals and texts. The presence and significance of the operating business component of real estate investments is shown through a qualitative analysis of issues presented in this literature. What follows is a review of current thinking by academics and professionals on this issue. I prove the presence of intangible business assets by drawing parallels in the responsibilities of real estate managers with those of any other business managers.

The second half of this thesis examines intangible business assets in pricing real estate at both the portfolio level and property level. Operating parallels are drawn between real estate and other companies primary research into real estate investment trusts (REITs) and publicly-traded real estate companies (RECs) in Chapter 5. Specifically, I examine expenses for management, general and administrative functions, and other intangible operating functions such as consulting fees, franchise fees, and legal fees that differentiate each business entity from the competition. With a sample data set of 34 REITs 24 RECs, I estimate statistically the required intensity of management and other indirect business functions for increasing levels of fixed assets.

Chapters 6 and 7 focus on the property level. Chapter 6 presents a method for recognizing, separating, and quantifying value enhancements to the real estate from effective business operations. It includes a demonstration of a business value residual technique. Chapter 7 presents the implications of these findings to the real estate development and investment industries.

Chapter 2
The Complexity of the Investment

2.1 The Changing Industry

Investors have increased their awareness of the complexity of real estate investing over the past ten years. Once viewed as a simple and safe investment with few barriers to entry, real estate is now under scrutiny for its justification in many portfolios. In the past developers were builders of portfolios; now they are fee builders and asset managers. The real estate investment industry has changed, and participants are adapting by devising new strategies and acquiring new tools. Investors are becoming more sophisticated professionals. Much of this sophistication comes from the application of institutional investment standards to the asset class.

Real estate is cyclical. These cycles have been the primary reason for financial successes and failures of real estate investors in the past. When inflation was high, as in the late 1970's and early 1980's, property appreciation covered many mistakes of careless investors. It was not uncommon to finance over 100% of development projects expecting inflation to produce equity prior to completion. In the past investors and developers waited for the next upswing in the cycle before entering or re-entering the market. Consequently, participants placed little weight on the long-term performance of real estate. Growth periods, including the recent boom of the 1980's, cover many mistakes of reckless investment pratices. During down cycles, the survivors struggle to maintain troubled assets through the aftermath of overbuilding and weak demand.

The environment today is less friendly to real estate investments. Failed thrifts and depressed markets have cut off sources of capital, and financial institutions are under strict regulatory scrutiny. These changes are forcing projects to survive on their own merits.

The industry has shifted its focus away from development and acquisitions to asset management and dispositions.

2.2 The Regulatory Environment

Real estate professionals must function in an environment characterized by extensive and complex public involvement and regulations. Further, they must be able to adapt to changes in regulations and public opinion which can have dramatic affects on asset values. Real estate development can have long-term impacts on communities and economies. Developers, owners, and managers must consider the social impacts of real estate assets, looking solely at fiscal aspects of property investing is to ignore a large part of the investment picture. Beginning at local and state levels, there is a myriad of land use controls, growth management policies, and environmental regulations while at the state and federal levels there are regulations on sources of capital from publicly-insured fiduciaries and pension plans.

One of the main objectives of land use controls is to serve the public by improving the community. Although this element may have different interpretations, it is clear that promoting health, safety and welfare of the community is the underlying principal. Public and private restrictions dictate building elements such as density, aesthetics, setbacks, access, parking, etc. in order to conform to the public's idea of a "quality" built environment and to "preserve values". Theoretically, certainty in land use in surrounding properties guaranteed by restrictions should enhance value due to the elimination of negative externalities in the future. However, public opinion changes and changes in land use controls occur which undermine this certainty.

In recent years real estate professionals have sought innovative ways to preserve and/or mitigate the risk of losing one of the "sticks" in the bundle of property rights due to local

land use regulations. Negotiated developments, public/private joint ventures, master-planned communities, and planned unit developments (PUD's) have become quite common in new and reuse developments. They preserve much of the developer's control while accomplishing the underlying objectives of the community. The real estate industry today must be innovative and creative in strategic planning with a constant eye on public opinion. With this, there is a heightened emphasis on good media relations.

There have been a number of federal regulatory changes in the real estate industry over the past 20 years. A brief historical perspective is necessary to understanding the nature of today's federal regulations. Rapid inflation and skyrocketing interest rates of the late 1970's and early 1980's created a dire situation for the nations thrift industry. Up to this time, savings and loans (S&L's) had enjoyed interest rate caps on demand deposits to ensure a profitable spread between its deposits and mortgages. However, as the prime interest rate approached 20%, depositors began withdrawing money from their 5.5% passbook accounts to seek higher market returns. Faced with a possible major collapse in the S&L industry, Congress passed the Depository Institutions Deregulation and Monetary Act of 1980. It phased out interest rate regulation, increased deposit insurance from $40,000 to $100,000, and gave federal S&L's expanded powers to make consumer loans and various kinds of mortgage loans.

Although deregulation enabled thrifts to attract deposits, it did nothing for the mismatch of high interest rates on demand deposits to low interest rates of existing mortgages. The 1980's witnessed many thrift failures. Although triggered by high inflation and interest rates, the problems were compounded by overbuilding, fraud, and a rapid decline in the oil industry during the early 1980's. Failing S&L's cut off sources of capital for the real estate industry and depleted funds from the Federal Savings and Loan Insurance Corporation (FSLIC). The Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA)

was enacted in 1989 in response to the S&L crises. It has fundamentally changed the regulatory and supervisory structure of S&L's and reversed the trend of liberalizing their powers.

FIRREA abolished the FSLIC and made the FDIC, the previous insurer of the banking industry, the sole administer of federal deposit insurance. It established the Resolution Trust Corporation (RTC) to resolve insolvent S&L's and restricted S&L's from engaging in activities that pose a significant risk to the insurance fund. Probably the most significant impact of FIRREA on the real estate industry is the expanded enforcement powers of S&L regulators. All "institution-affiliated parties" are subject to regulatory scrutiny, and fines for misconduct, including independent contractors such as attorneys, appraisers, and accountants.

FIRREA has added uniformity to the underwriting process and appraisal process. The RTC set standards and a code of ethics for contractors, subcontractors, and others seeking to do business with the RTC. They impose restrictions that may lead to higher costs by establishing stringent reporting requirements, prohibiting certain actions, or by imposing other requirements.[2] Through uniformity and accountability, the market is becoming better informed and thus more efficient. A more efficient market means fewer opportunities for above-market returns; however, it also means lower risk of uncertainty. This also means a more competitive market forcing industry professionals to carefully consider the risks and long-term performance of real estate investments.

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[2]Parzinger, Thomas M., "The Long-Term Impact of FIRREA on Real Estate Finance," Real Estate Review, Summer 1992, p. 57.

2.3 The New Real Estate Professional

As the industry changes, so do the people involved. Industry professionals possess a broader range of skills now than ever before. Advanced degrees in business and real estate, sophisticated computer applications, and global investment considerations once rare in real estate are now quite common. Many academics are making a transition into private enterprise to meet the increasing demands for informed and insightful decision-making. As a consequence many of the small direct investors in real estate have not been able to compete with larger institutional investors.

Large investors have an advantage in the market by being able to achieve the benefits of diversification in their real estate portfolios. Institutional concern over portfolio performance has triggered investor use of Modern Portfolio Theory (MPT). They are examining real estate investments across types, geographical locations, and financial characteristics and how they perform as a group rather than individually.[3] Although still well below efficient market levels, information on markets and properties has moved into the forefront of decision making. New information on the characteristics of real estate investments has changed traditional thinking and practice of investing. Portfolio and assets managers are now more informed and sophisticated in acquiring, positioning, and disposing real estate assets than ever before.

Financial institutions have changed from lenders to owners of real estate. This has had an important impact on the industry. Many federally-insured banks and savings & loans have been taken over by the Federal Deposit Insurance Corporation (FDIC) and the Resolution Trust Corporation (RTC) thereby making the federal government the largest operator of private real estate in the country. REO asset managers have taken on new challenges and changing objectives given billions of dollars of distressed property. They are functioning in

[3]Louargand, Marc, "Portfolio Theory: Tool for the 1990's,"

a strict regulatory environment while attempting to create value enhancement and disposition strategies. They strive to balance prudent value enhancement with expedient liquidation. Thus, the ownership role in commercial real estate is focusing on innovative and creative thinking for adding value to existing assets.

Finally, the appraisal profession is undergoing major changes to increase standards of the profession. The Appraisal Foundation formed the Appraisal Standards Board and Appraiser Qualifications Board to set uniform standards which transcend professional associations. The two major appraisal associations, the American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers, merged in 1990 into the Appraisal Institute to "provide broader opportunities for the professional advancement of its members."[4] The goal was to join forces to increase the quantity and quality of member education, uniformly police its members, and enhance the image of the profession. The Appraisal Institute has promoted a master's degree program in real property valuation and similar fields at several universities throughout the country. Thus, the appraiser is increasing in sophistication and accountability to meet the demands of the changing, complex market.

2.4 Private Market Investment Characteristics of Real Estate

As an investment asset real estate is priced relative to its risk. Risk is generally defined as the variability about the mean of an expected return. This variance is measured statistically given probabilities of outcomes. Total risk is comprised of market (undiversifiable) risk and specific (diversifiable) risk.[5] Market risk is that risk common to all investments of the same general class and cannot be diversified away.[6] Specific risk is unique to a particular

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[4]The Appraisal Institute, "Conceptual Plan for Unification," 1989.
[5]Weston, Fred J., Copeland, Thomas E., Managerial Finance, Eighth Edition, Chicago.
[6]Downes, John, Gordon, Jordan Elliot, Barron's Dictionary of Finance and Investment Terms, second edition, Barron's Educational Series, Inc., New York, ©1987.

investment and can be diversified away. Prices are set using a "risk premium" based upon an investment's market risk relative to a well-diversified portfolio. In other words, the riskiness of a real estate investment is its volatility of its expected returns relative to market risk factors.

For most multi-asset portfolio investments asset class, expected return, and risk measured as standard deviation are the sole determinants of investment criteria. The mix of asset classes in the multi-asset portfolio can be determined using portfolio optimization based upon Modern Portfolio Theory (MPT) to achieve the optimal level of overall return relative to the risk of the portfolio. From this perspective, real estate's performance characteristics justify a 10% to 20% allocation in a pension fund's multi-asset portfolio.[7] However, private market investment in real estate has other ownership characteristics unique to this asset class.

Investors, particularly pension funds, are concerned over the additional "non-risk" factors of real estate ownership. These include the divisibility of ownership interests, liquidity, information availability, conflicts of interest, investor liability, and owner involvement.[8] Unsecuritized real estate is largely indivisible which reduces diversification opportunities within the asset class. Relatively large amounts of capital are required for each investment. Private real estate is not fungible, has no centralized market, lacks adequate pricing information, and involves few participants. As a result, it is a relatively illiquid, inefficient investment requiring investors to take a long-term view. Conflicts of interest can arise through fiduciary responsibilities investment managers have with their clients. Manager compensation is typically tied to the assets which can affect incentives to transact. These

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[7]Wurtzebach, Charles H., "The Role of Real Estate in the Pension Plan Portfolio," JMB Perspectives, Volume 2, Number 4 (Winter, 1992).
[8]Ennis, Richard M., Burik, Paul, "The Influence of Non-Risk Factors on Real Estate Holdings of Pension Funds," Financial Analysts Journal, November-December 1991.

potential conflicts create liability for losses arising from breaches of managers' fiduciary duty. Finally, investment in private market real estate requires a degree of owner involvement not found in investments in common stock. Operating and capital improvements, management, marketing, strategic planning, and financing decisions are all common to maintain real estate assets. Unsecuritized real estate therefore requires a high degree of owner or manager involvement. These unique real estate investment characteristics create additional costs to the owner which are not priced in the pure volatility definition of risk.

These factors can be classified as the management risk of the business component of real estate. They are related to the specific risks of each property; however, they cannot be diversified away in private-market real estate holdings. In a stock portfolio, diversification takes care of specific risk, but in a well-diversified real estate portfolio, the owner/investor still has the managerial component of the investments. In other words, one can effectively diversify away specific risks due to location, product type, and tenant characteristics, but ownership involvement in the assets does not diminish.

Chapter 3
Two Markets, One Business

3.1 Two Distinct but Interrelated Markets

Many economists have pointed out that real estate markets are two distinct but interrelated markets: the market for real estate assets and the market for real estate space. The former deals with real estate's role in a diversified portfolio of investments in equities, bonds, cash, and real estate. Its price is determined by investor demand to own real estate and the supply of appropriate real estate investment vehicles. The latter deals with real estate as a consumer and capital good and the demand to occupy space. As a consumer good its rent is determined by household demand to occupy housing and the supply of housing able to meet this demand. As a capital good rent is determined by company demand for land and capital factors of production needed to produce goods and services and the available supply of land and capital. This distinction of the two markets is important as it is the premise for separating the operating characteristics from the pure investment characteristics of real estate investments.

These two dynamic markets are constantly adjusting toward equilibrium. Changes in supply and demand in the space market are repriced in the capital market while changing prices relative to construction costs in the capital market affect the supply of space in the space market. DiPasquali and Wheaton demonstrated the links between the two markets in a four-quadrant model (Exhibit 3.1).[9] The capital market is graphically depicted on the left, and the space market is graphically depicted on the right. The links occur at two junctions along the Y axis: first, rent levels determined in the space market determine demand for real assets, and second, construction levels determined in the capital market determine supply in the space market.

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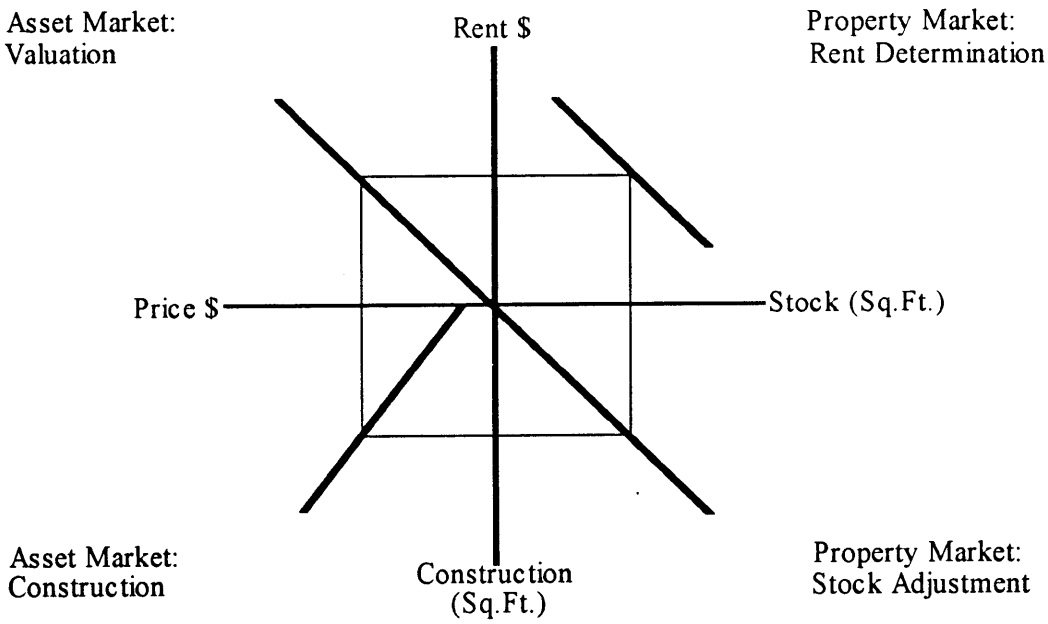
[9]DiPasquale, Denise, Wheaton, William C., "The Markets for Real Estate Assets and Space: A Conceptual Framework," Journal of the American Real Estate and Urban Economics Association, Volume 20, Number 1, 1992.

Exhibit 3.1 Real Estate: The Property and Asset Markets



Source: DiPasquali and Wheaton

In the northeast quadrant, demand for space is depicted as the relationship between rent levels and the state of the economy. Movement along the curve determines how much space would be demanded given a particular rent level on the Y axis. The slope of the curve depends on the elasticity of demand and can change due to endogenous variables. That is, internal market changes in tastes, needs, or operating leverage that could change market sensitivity to rent levels. The entire curve shifts inward or outward due to exogenous changes in the economy. Economic growth could increase demand for space across all rent levels while a recession would have the opposite effect.

In the northwest quadrant a ray emanating from the origin represents the relationship between rents and prices in the capital market. It is the ratio of rents to price, or the capitalization rate, and its slope is generally determined by four factors: long-term interest

rates, expected growth in rents, perceived risks in the rental income, and treatment of real estate in the tax code. An exogenous change in any of these factors could increase or decrease the capitalization rate thereby rotating the ray clockwise or counter-clockwise respectively.

In the southwest quadrant a curve of construction costs represents the relationship between prices and new construction. Costs are assumed to increase with increased building activity. The slope of this curve is determined by the elasticity of demand for new construction. The more sensitive construction costs are to changes in demand, the more the curve flattens horizontally. Exogenous changes in new construction can increase construction costs for all prices and shift the curve to the left or right. This could be the result of changes in short-term interest rates (affecting construction financing), regulatory issues affecting land values, or fluctuations in prices of building materials.

Finally, the southeast quadrant shows the affect of new construction on the long-run stock of space. The change in stock equals new construction less losses due to depreciation and scrappage. The ray emanating from the origin is the rate of scrappage and determines what level of construction is necessary to maintain an equilibrium stock of space. Exogenous changes in building materials or user space needs and tastes can affect the rate of scrappage by extending or shortening physical and functional lives of buildings. This would cause a rotation of the scrappage ray.

As previously mentioned the two markets are constantly adjusting and striving toward a long-run equilibrium in the asset and space markets. This is depicted by the thinner line in figure 3.1. Changes in any quadrant will have corresponding changes in the other three quadrants in a counter-clockwise direction until equilibrium is reached once again. The

two markets react simultaneously to changes in either, and characteristics of both are priced in the capital market.

3.2 Business Influences on the Markets

Fundamental to any economist's theory is the assumption of rational behavior. It means that given a person's goals and knowledge, people take actions likely to achieve those goals and avoid actions likely to detract from those goals.[10] The "prudent-man rule" is a similar concept adopted in the business community by institutions and fiduciaries. Implicit in these concepts is the need to effectively manage investments in order for them to perform as expected. Economic theories do not work unless people make rational decisions to maximize returns, whether intrinsic or extrinsic, and/or minimize risk.

Fiduciary behavior is driven by the prudent man rule. It dictates that investment occurs only if it is one that a "prudent man" of discretion and intelligence, seeking reasonable income and preservation of capital, would buy.[11] This describes the basic function of money managers. They buy and sell securities based upon their own portfolio risk and return requirements. They have no direct involvement in the businesses in which they invest. In investing in private-market real estate, however, investors and managers are directly involved in the operations of the asset. Therefore, rational behavior in real estate investing dictates that effective business management of real estate assets is necessary to achieve market returns.

The presence of an operating business component in portfolio investing is unique to real estate because real estate straddles two markets described earlier: the market for assets and the market for space. Intangible business assets are present in the space market and

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[10]Rycroft, Robert S., The Essentials of Macroeconomics I, ©1989.
[11]Ammer, Christine, Ammer, Dean S., Dictionary of Business and Economics Revised and Expanded Edition, ©1984.

priced in the capital market. The space market is no different from any other product market where goods and services are sold to the public. It involves planning, organizing, and controlling the enterprise in order to offer the best possible product at the lowest cost to the most profitable market.

In the northeast quadrant of figure 3.1, the demand curve represents how the demand for space depends on rents, given the state of the economy. Rent is a measure of the value placed on space by tenants. The actual physical environment of the space is just one function of this value. Rent also pays for services and amenities, management, benefits of tenant agglomeration, and other intangible enhancements such as the "right address" and reputation or stability of the owner. Given this, it follows that management in concert with the physical asset plays an important role in the determination of market rent. Therefore, there is a certain degree of human element to influence the value of real estate.

Superior real estate management can facilitate an atmosphere that is less sensitive to rent levels thereby making demand more elastic. This can reduce the downside risk of the asset by being better able to maintain rents during periods of increasing supply. By providing superior service to tenants relative to the competition, management can maintain or enhance value through intangible benefits to tenants. Conversely, an asset could under perform the market through incompetent management. If an owner/manager fails to recognize the value tenants place on space, he/she could lose this value by not contributing the intangible component.

Real estate management can also influence the space market in the rate of scrappage depicted in the southeast quadrant of figure 3.1. The ray emanating from the origin represents the rate of depreciation through physical and functional obsolescence. Management's strategic planning and repositioning of existing real estate can extend the

economic life of an asset. This can have positive affects on existing assets in two ways. First, it can make existing properties more profitable through continued operation, and second, reduce additions to supply by decreasing the rate of scrappage.

What remains is to determine how these intangible assets in the space market are priced in the capital market. As with any investment in a multi-asset portfolio, assets are priced relative to their return volatility compared to market return volatility. Therefore, any intangible enhancement due to an operating business component is indirectly priced through its impact on cash flows. In other words, management's impact on rent elasticity can minimize rent and occupancy volatility. Rent is capitalized into value in the northwest quadrant of figure 3.1. Among others, factors influencing the capitalization rate include the perceived risk associated with the rental income stream and expected growth in rents. Business enhancements on the rental stream can reduce the capitalization rate which has a positive impact on value. This could be shown graphically in figure 3.1 as a counter-clockwise rotation of the capitalization rate ray. Conversely, incompetent management that fails to meet the "rational behavior" assumption could cause a property to under perform in the market by increasing its return volatility and increasing its capitalization rate. This would have a dampening effect on property value.

Chapter 4
Managing the Business

4.1 Real Estate as a Going-Concern

A going concern is an operating business enterprise. It is a broad term used to describe any independent, profit or nonprofit, business entity actively providing goods and services to customers. Implicit in this definition is the presence of a strong human element to operate, manage, position, and market the business for its continued survival. The accounting and appraisal professions have long recognized going concerns and their intangible assets of the business organization, management, and legal rights (trade names, business names, franchises, patents, trademarks, contracts, leases, and operating agreements) that have been assembled to make the business a viable and valuable entity in its competitive market.[12]

Many management-intensive forms of real estate have always been viewed as going concerns. Hotels, hospitals, retirement homes, and recreational uses such as golf courses and ski resorts are often referred to as "special-purpose" properties due to the retail nature of services provided. Revenues earned by these properties are generally from services provided customers rather than rental income from property leases. However, industry professionals have been rethinking all forms of real estate in recent years given the increasing demands on property/asset managers.

The late James A. Graaskamp, an expert in the microeconomic aspects of real estate, espoused the "enterprise concept" in real estate. He campaigned for a change from the idea of real estate as just bricks and mortar to "the concept of a building as an operating entity, a living, breathing business with a cash flow cycle similar to any other operating

[12]Fisher, Jeffrey D., Kinnard, William N.,"The Business Enterprise Value Component of Operating Properties," The Journal of Property Tax Management, Volume 2, Number 1, 1990.

business."[13] Although there is much less service provided users of industrial and office property than users of hotel property, there is a certain amount of service nonetheless. Property management, security, marketing, and the maintenance of the physical environment are all provided to tenants at the property level. In shopping malls tenant leases are structured more like business partnerships with property owners. The tenant lease agreements create "a symbiotic relationship that produces intangible value above and beyond that of the tangible property."[14] Owners strive for an optimal synergy of tenant mix amidst agreements with anchors who typically own their spaces in fee simple with reciprocal easements, noncompetitive merchandise agreements. Furthermore, Owners share marketing efforts with tenants for the success of the mall. In return owners share profits of tenants' gross sales.

Charles Grossman, Managing Director of Jones Lang Wooton Realty Advisors, recently identified four characteristics of real estate as an operating business.[15] First, volatility of a properties income stream results from changes in the supply of and demand for space and the interaction of these variables with generally prevailing lease terms. Overbuilding due to the availability of land, prodevelopment attitudes, and permissive zoning regulations form the greatest specific risks to the real estate owner. Demand results from not only expanding markets, but also from changing market tastes and needs. Second, volatility in the product market can place the property owner in a position similar to that of the owner of any privately-held company faced with excessive competition and declining profit margins. A sale during a depressed market would likely be below the inherent value of the asset. The owner is forced to operate the business until times improve.

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[13]Miles, Mike E., Malizia, Emil E., Weiss, Marc A., Berens, Gayle L., Travis, Ginger, Real Estate Development Principles and Process, ©1991.
[14]Fisher, Jeffrey D., Kinnard, William N.
[15]Grossman, Charles, "A Second Look," Real Estate for Pension Professionals,

The third characteristic Grossman identifies of real estate as a business is the importance of managerial competence to the success of a property. Due to the volatility of returns, the owner/manager must consider the marketability and functionality of the property and position the asset to meet the changing needs of the market. In addition, he/she implements appropriate operating policies and capital improvement programs to maintain and maximize income from the investment. Fourth and finally, ownership of real estate requires an investor to take a long view of the investment. The time, expertise, and expense necessary for a sale makes private market real estate generally unsuited for short-term ownership. Like the owner of a small business, the owner of real estate has to make long-term decisions and commitments with little assurance of success and no access to a speedy exit.

It is clear that investment in real estate is management-intensive. Effective management includes responding to changing market needs as well as accommodating investors' needs by structuring operations to maximize the value of the asset. Whether owned privately or publicly, participants in the space market for real estate are selling a product. Just as with any other going concern, there are intangible assets necessary for the continued viability of the investment.

4.2 The Evolution of Real Estate Management

Traditionally, real estate management was relatively simple not given much consideration by developers and investors in speculative real estate. It was locally oriented with little attention to long-term positioning of the property for market acceptance. Management's primary duties were to collect rents and maintain facilities. Asset manager and property manager were virtually synonymous, and there was little involvement of property managers in the initial conceptual phase of a development. The industry had the perception

that if you built something, it would lease as long as a manager maintained the physical property.

As the market became more competitive, the need for more attention to the customer and the bottom line income became apparent. The scope of management services broadened to the point where two distinct categories of management have evolved: standard property management and asset management. Real estate asset management has taken on new challenges and changing objectives. Managers must squeeze profits out of profitless investment properties by acting more like CEO's of investment properties rather than just rent collectors.[16] They must be capable in financial analysis, accounting, real estate law, tenant relations, marketing, and personnel management. Susan Bell, Vice President of John Hancock Realty Management, summed up the evolution of the property/asset manager relationship:[17]

> "As our markets become more complex, real estate was seen more as a business, and we managed it like a business... We are more sensitive than ever before to the impact of individuals on our business and the importance of communication and interpersonal skills."

Decisions are made with more broad-based considerations of the competition, target market, and impact on a larger portfolio of assets.

Widespread troubled assets are now the norm in the marketplace. Asset managers must now identify each property's unique characteristics and assess its position in the marketplace. They must develop strategic options and propose creative solutions to owners in the face of impending foreclosures. Answers to a recent asset management

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[16]Karras, Jack, "Real Estate and Asset Management in the Investment Life Cycle," The Real Estate Finance Journal, Spring 1990.
[17]Goodnough, Angelique, "How Institutions Monitor Management Effectiveness," Journal of Property Management, July/August, 1990.

survey conducted by M.I.T. of pension plan sponsors, advisors, and consultants is indicative of the more comprehensive role of the profession today.[18] Three main themes came out of the answers: control, value maximization, and surrogate ownership. To the question, "What is the role of asset management?" the following responses were made:

> "To oversee all aspects of a particular asset through development and implementation of a property's business plan." (plan sponsor)
>
> "To protect, maintain, enhance, and create value in real estate through the implementation of short- and long-term strategies as they relate to the property operating issues, leasing and marketing initiative, capital and building improvement requirements, and financial considerations including capital market concerns." (advisor)
>
> "To oversee and manage the operations of all aspects of a property and to ensure that a property's value is maximized. This is not limited to physical property operations but includes the financial structure of the property. An asset manager should understand a property in its entirety and focus on maximizing value." (consultant)
>
> "To act as owner for investors including safeguarding, maintaining and directing a real estate asset. (advisor)

Real estate managers today are sophisticated professionals who function as small business managers rather than caretakers. They are strategists with definite business plans to differentiate each property from competition in the marketplace.

4.3 The Process of Real Estate Management

Management involvement in real estate has increased throughout the property's investment life cycle. Beginning with the initial conceptual phase, property and asset management participation serves as the owner's proxy primarily responsible for the operations of the

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[18]This survey was conducted by Marc Louargand at the Massachusetts Institute of Technology for the 1992 PREA/MIT conference held on June 29, 1992 at M.I.T. There were 37 responses from a toal sample of 39 participants and one industry faculty member. The four reponses presented here are believed to be indicative of all responses.

property. During the conceptual phase, property managers provide valuable insights into tenant needs and wants and can assess cost effectiveness of materials and systems from a maintenance point of view. This function is vital to identifying the building's target market, estimating absorption, and delivering the most efficient product to the customer. A working knowledge of the day-to-day operations of a property enables management to effectively assess the physical and functional aspects and municipal code aspects of the property as well as scrutinize for potential hazardous substances.

In distressed property, asset managers can be instrumental in mitigating problems during loan workouts and foreclosures. Creative solutions are often required to reposition assets to either avoid foreclosure our facilitate a smoother transition to institutionally-owned property. During this early phase in the investment cycle, asset managers work with owners to create a business plan for each property. This involves defining the owners objectives and the means to achieve these objectives by examining a target market, the functionality of the building, and the quality of products and services that must be offered the market.[19] The business plan defines short- and long-term objectives to direct management, marketing, and capital expenditures. It provides the basis for understanding why costs are budgeted and why revenue is up or down.

During the absorption phase of the investment, property managers review leases and coordinate tenant move-ins. This involves monitoring tenant improvements and reviewing change orders while assisting in lease negotiations and the marketing effort. Of particular importance is structuring lease expirations. It is important to know specific expirations of new and existing leases and their fiscal impacts on the property. This is crucial for creating and maintaining operating expense budgets and preparing for capital shortages.

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[19]Hickman, Ron, "The Property Business Plan and What Should be Demanded of the Property Manager," The Real Estate Finance Journal, Fall 1989.

During the operating phase of the investment life cycle, property and assets managers closely monitor the performance of the asset. Monthly financial reports are generated to track revenues, expenses, disbursements, and tenant lease rollovers. As with any business, management strives for an optimal balance of customer (tenant) satisfaction while maximizing returns to the owners/investors. Quarterly reports on local competition and capital improvements keep owners informed on the property's relative performance in the market. This phase is dominated by traditional management efforts of day-to-day operations, rent collections, and accounting with a special emphasis on tenant relations. Progress is monitored by periodic physical inspections by the owners and examination of the monthly and quarterly reports.

During the final disposition phase of the investment, management can assist in analyzing offers with due diligence. Unlike other investments, real estate requires the owner to consider the horizon beyond disposition. The property must be positioned in such a way that it has an economic life for a potential buyer. Since real estate requires a long-term view, management attention to the success of the property beyond disposition can enhance the marketability of the asset.

4.4 Value-Adding Through Real Estate Asset Management

Two ways assets managers can add value to real estate is by either increasing net income or decreasing the perceived risk of the asset relative to its income stream. Increasing net income deals with improving an assets perceived worth by tenants in the marketplace. Tenant perceptions of the worth of the product offered for lease dictate market rents, turnover rates, and average marketing periods. Location, building quality, accessibility, visibility, and functionality are the obvious physical factors that contribute to the worth of the space to tenants. Other intangible factors affecting worth include tenant services and

amenities such as management, security, maintenance, concierge and secretarial service, etc., as well as benefits from other tenants through business symbiosis and agglomeration.

The key to successful value-adding of real estate is that all activities must be market-driven.[20] Identification of a target market for each property can enable asset managers to assess the space demand for each building and customize the space to meet that demand. By simple cost/benefit analyses, asset managers can determine which building services and amenities are productive uses of capital. Understanding the target market's demand can also aid the manager in assessing the physical and functional building environment and ways to cure deficiencies if possible. Any physical enhancements must fit the market; renovation need not create the most glamorous building in the market. Rather managers strive to find the most effective use of renovation dollars to improve the buildings condition and image to meet the target market's needs.

Marketing skills are vital to the asset manager for differentiating a property in order to win a high degree of market acceptance. Research into business cycles and trends, consumer tastes, tenant profiles, and competing space in the market must be combined with market-derived estimates of tenant buying power and financing needs. This also means being responsive to existing tenants. Recently, much literature in management journals have recognized the importance of management relations with tenants. In today's highly competitive market, tenant retention is of the utmost importance to the fiscal success of a property. Successful buildings are ones where managers have effectively differentiated it in the marketplace.

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[20]Weinstein, Howard, "Value Added: An Asset Management Case Study," Real Estate Finance, Winter 1992.

It should be mentioned that controlling operating expenses is an important function of real estate managers. This may seem intuitive; however, its benefits go far beyond maximizing net income. By reducing the amount of fixed costs, managers can hedge the risk of periods of high vacancies. More variable operating expenses reduce operating leverage thereby reducing volatility in net income. Furthermore, in many types of commercial properties, some or all expenses are passed through to the tenants. Tenant relation problems can arise out of careless or ineffective management of operating expenses. Therefore, managing expenses have three benefits: maximizing net income, reducing net income volatility, and maintaining good tenant relations.

Another way asset managers can add value to real estate is through reducing the affects of specific risk on the property through a comprehensive risk management program common to any business. This can be done by anticipating cash flow fluctuations and working to minimize return volatility. There is a continual refining of assumptions to convert as much speculation to fact as possible and provide tolerance for the uncontrollable surprises. This means adopting a healthy dose of realism about the current market's current condition and not necessarily cling to original project expectations.

Through statistical research, management can reduce future uncertainty by determining local proxies to anticipate future downside potential. By devising and implementing a business strategy for each property, local negative impacts can be prepared for in order to maintain rents and occupancy levels. Anticipated business or demographic shifts can enable the manager to reposition the property, structure leases, and time capital expenditures to ensure that the property responds to the market in a timely manner.

Asset managers can reduce risk through diversification of tenants. Just as with property types in a real estate portfolio, each multitenant property can achieve a certain degree of

industry diversification by seeking an optimal tenant mix tailored to local economies. Even among similar type tenants, management can achieve diversification through size and lease terms. Generally, larger tenants are more stable and on longer lease contracts. They are typically perceived as lower risk; however, the loss of one large tenant can by devastating to occupancy. Smaller tenants are generally less stable and have shorter lease terms; however, they can have higher growth potential and can be combined with many more to reduce the effects of losing some. A mix of the two can provide a hedge against possible short-term rent or occupancy fluctuations in the market. Asset managers must be aware of the specific risks associated with each tenant and strive for an optimal tenant mix the for each property.

Risk management does not end with the trough of a down cycle, nor due its considerations end with the life of the investment. Even during times of growth, unforeseen fluctuations or entire reversals in market conditions can occur for which the manager must be prepared. The fiscal well-being of the asset beyond disposition must also be considered in order to ensure the highest possible reversionary price. Since real estate is valued relative to performance and future expectations, asset management can enhance a sale price by positioning a property and structuring leases for the long-term beyond their investment horizon.

Chapter 5
Empirical Evidence of the Operating Business in Real Estate

The purpose of this chapter is to investigate evidence of operating business characteristics of real estate and to measure their impacts on fiscal performance. Of the three factors of production - land, labor, and capital - human involvement or labor is where any business enhancement to value can be found. General and administrative expenses are used to measure the intensity of human involvement. This expense category is broadly defined to include all indirect operating expenses including property management and marketing, as well as property-specific and nonproperty-specific professional services including asset/portfolio management, legal services, and third-party advisors.

5.1 The Data

The data used for these analyses are real estate investment trusts (REITs) and public real estate companies (RECs). Reports from 1992 fiscal year-end forms 10K were examined for income and expense characteristics for these companies. Annual average stock prices were taken from Standard & Poor's to determine the average 1992 total capitalization of each company. No time series analysis was performed with the exception of historical revenue growth since 1990. The following is a summary of companies used for this study.

	REITs	RECs
Total Surveyed	34	24
Total Capitalization	$4.57 bil.	$3.46 bil.
Average Size	$134.4 mil.	$144.3 mil
Long-Term Debt Ratio	42%	45%
Real Estate as % of Total Assets	81%	66%
Asset Mix		
Land/Single-Family Res.	3%	50%
Office/Industrial/Apartment	26%	4%
Hotel/Retail/Restaurant	26%	25%
Mixed Asset Portfolio	44%	21%

The sample of REITs used ranged in size from $4.7 million to $1.1 billion. They were mixed across all property types with the exception of health care related facilities. It is important to note that there are two distinct sets of expenses reported for REITs. Expenses relating to operations of individual properties within the portfolio are reported "above-the-line" or above net operating income (NOI) for the individual properties. Portfolio-wide expenses attributable to all properties are reported "below-the-line" or below NOI and are used to determine net earnings of the company. Differences in accounting practices did not afford reporting consistency. Some REITs differentiated expenses both above and below property NOI's while others only reported expenses below NOI's. For consistency, all REIT revenues and expenses were adjusted to reflect net operational incomes for real estate and detailed expenses below NOI.

The sample of public real estate companies ranged in size from $5.9 million to $525 million. They consisted mainly of land and single-family residential developers and operators of commercial, single-purpose real estate. Income is primarily derived from sales of developed properties or fees for services. Therefore, revenues listed in 10K reports reflect gross proceeds with no separation of property-specific expenses. This is an important distinction from the REITs and will have to be accounted for later.

5.2 The Methodology

The objective of this study is to determine the relationship of administrative intensity of REITs versus RECs, its influence on pricing, and the presence of any scale economies. It assumes general and administrative expenses (G&A) are indicative of the intensity of business operations in each REIT. No allowance is made for the quality of management or its efficient implementation. Management quality would require knowledge of participants and practices not available in the data set. It would also involve devising a series of quality rankings for each REIT manager which is beyond the scope of this study.

G&A expenses will be compared across REITs and RECs to answer two questions: 1) Are RECs more management intensive than REITs? and 2) Is management intensity related to pricing? From the data set, total capitalization appears to be consistent with total assets net of long-term liabilities. Overall, the average ratio of the two is 0.993 which means the market is efficiently pricing book equity in both REITs and RECs. This varies slightly between the two with 1.061 for REITs and 0.892 for RECs. Exhibit 5.1 below reveals influences on price variability around the mean for individual REITs.

Exhibit 5.1 Determinants of REIT Price Discounts/Premiums

Dependent Variable	*Total Capitalization/Net Assets*		
Constant	0.7276		
Std Err of Y Est	0.7195		
R Squared	0.3044		
No. of Observations	34		
Degrees of Freedom	30		
Independent Variables	*Total Assets*	*Net Earnings/ Total Revenues*	*G. & A./ Total Assets*
Coefficients	1.758E-06	2.7573	0.4635
Standard Errors	8.175E-07	1.0200	1.1332
T-Statistics	2.1509	2.7032	0.4090

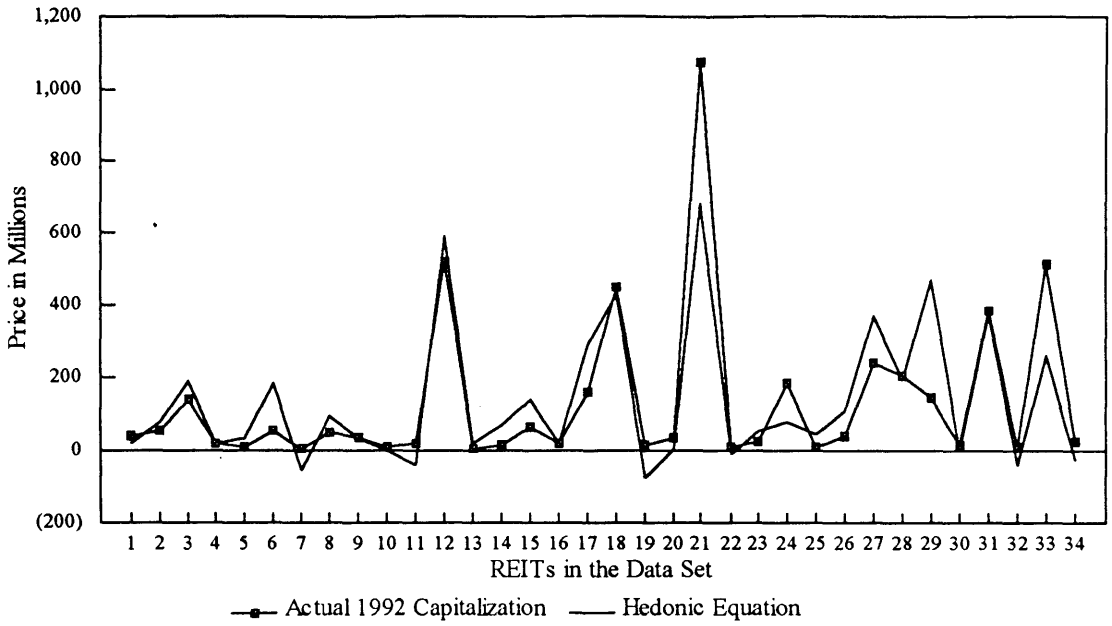
Only 30% of the variation about the mean can be explained by the independent variables. Total assets has a small positive correlation coefficient indicating no price discounting for scale economies. Since REITs are portfolios of properties, greater amounts of diversification are likely to further reduce specific risk. This would reduce required returns and boost prices. In other words, size is a proxy for risk. This coefficient is significant at the 95% confidence interval. The ratio of net earnings to total revenues is also positive and significant at the 95% confidence interval. This is intuitively correct as higher

percentages of net incomes should command higher price premiums. Of particular importance is the ratio of G&A expenses to total assets. This variable is not statistically significant. It indicates that the intensity of business management is not significant in determining REIT price discounts or premiums from the mean ratio of price to assets. It does not, however, address the quality of management.

All characteristics of REITs in the data set account for approximately 96% of the total capitalization of each company. While G&A expenses present little or no relationship to pricing, three variables - size, leverage, and net earnings - account for approximately 73% of the variability in pricing (See Exhibit 5.2).

Exhibit 5.2 REIT Pricing

Dependent Variable	*Total 1992 Capitalization*		
Constant	30,595		
Std Err of Y Est	120,300		
R Squared	0.7347		
No. of Observations	34		
Degrees of Freedom	30		
Independent Variables	*Total Assets*	*Long-Term Debt Ratio*	*Net Earnings*
Coefficients	1.1024	(206,227)	1.3648
Standard Errors	0.1395	99,653	0.9685
T-Statistics	7.9008	-2.0694	1.4093

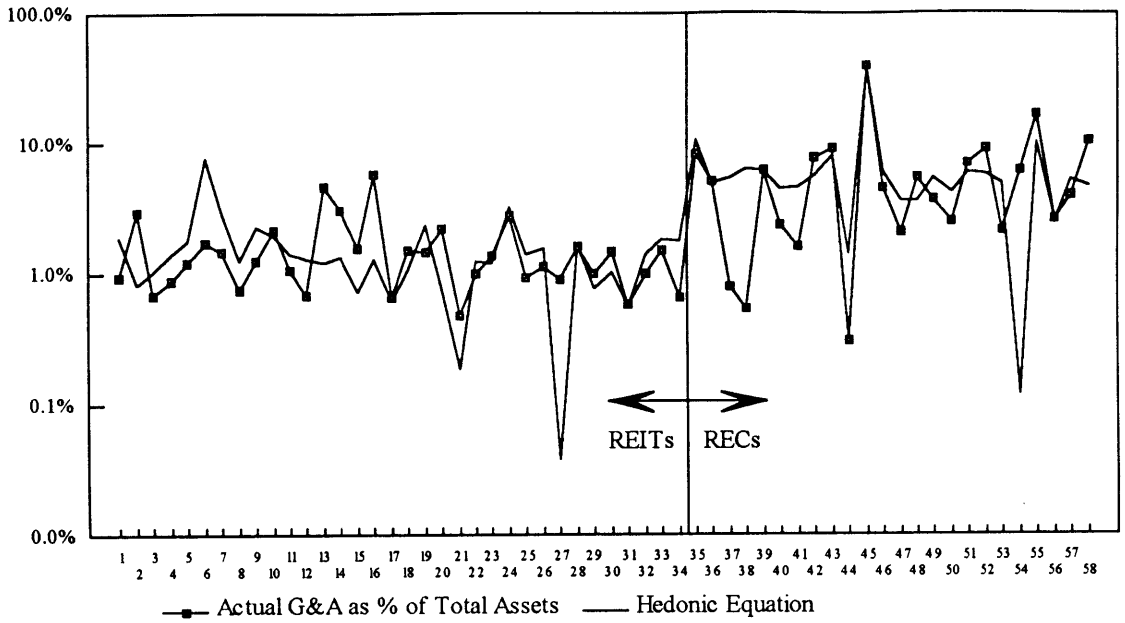


This is a slightly more robust version of the prior equation. It shows that a given amount of assets is affected by leverage. Size in total assets and long-term debt are both significant at the 95% confidence interval. Net earnings are significant only at the 80% confidence interval. The low T-statistic is likely the result of being dwarfed by the tautology of regressing total price by total size. Isolating earnings per share indicates significance at the 95% confidence interval for price per share. Earnings per share alone only account for 18% of price per share variability. This indicates that the market is less concerned with present cash flow than it is with underlying equity in REITs. This is characteristic of properties positioned for growth. Required yield is primarily made up in future appreciation of revenues and prices. Real estate G&A expenses are generally recognized as variable expenses. Therefore, they are a function of the size of the company. It was not appropriate to include them in this pricing analysis as total capitalization would not be dependent on them. Price-to-book ratio, on the other hand, might be dependent on them. However, this was shown not to be true in exhibit 5.1.

The analysis so far has focused on REIT pricing and the relative affects of business involvement. It has shown relative insignificance in value-adding or discounting given higher expenditures for business involvement. It has not demonstrated a need for business involvement for maintaining asset value or shown that real estate investing is as much an operating businesses as any other company. In exhibit 5.3 G&A expenses as a percent of total assets were examined in relation to total assets and revenues to see how strong a correlation there is to REITs and RECs. It also reveals whether a significant difference exists between REITs and RECs in the amount of business involvement relative to total assets. Regressing company type, size, and relative incomes to total assets reveals a strong correlation to G&A expenses relative to total assets. The accompanying graph is in a logarithmic scale to accentuate differences between actual and predicted values.

Exhibit 5.3 Influences on Business Intensity

Dependent Variable	*Gen. and Admin. Expenses as % of Total Assets*		
Constant	0.0321		
Std Err of Y Est	0.0241		
R Squared	0.8324		
No. of Observations	58		
Degrees of Freedom	54		
	REIT Dummy	*Total Assets*	*Revenues as % of Total Assets*
X Coefficient(s)	-0.0352	-2.11E-08	0.1736
Std Err of Coef.	0.0070	6.48E-09	0.0126
T-Statistics	-5.0602	-3.2580	13.7913



All three independent variables are significant at the 99% confidence interval and they account for over 83% of the variability in business intensity. The first variable indicates a 3.5 percent difference between REITs and RECs. As was previously mentioned, G&A expenses for REITs represent those "below-the-line" for properties included within them. Therefore, only a portion of the total G&A expenses are reported in the data set.

Industry surveys published by the Institute of Real Estate Management (IREM), the National Association of Industrial and Office Parks (NAIOP), and Panell Kerr Forster (PKF) can provide a basis for adjusting G&A expenses for a more accurate comparison. The schedule below combines industry averages of administrative and management expenses with data from the REIT data set. The 3.5 percent difference in G&A expenses derived from the regression analysis appears to be somewhat offset by the 1.2% G&A expenses from "above-the-line" operations from individual properties. Thus, it appears that REITs are slightly less business-intensive than RECs.

Property Type	G. & A./ Total Income	Net Inc. Ratio	Number of REITs
Industrial*	5.0%	55%	16
Apartment**	18.6%	51%	13
Office**	15.3%	50%	16
Retail**	16.8%	65%	20
Hotel/Restaurant***	24.7%	37%	9
Weighted Average	15.2%	54%	

G&A as a Percent of Revenues (data set)	14.2%
Average Net Income Ratio	x 54%
"Below-the-Line" G. & A. Expenses/Gross Revenues	7.7%
"Above-the-Line" G. & A. Expenses/Gross Revenues	+ 15.2%
Total G. & A./Gross Revenues for Real Estate	22.9%

Asset Type	Weight (data set)	G. & A. Expenses	Weighted Average
Equity Ownership in Real Estate	81.4%	22.9%	18.6%
Mortgages and Other Assets	18.6%	14.2%	+ 2.6%
Weighted Average G&A as a Percent of Total Revenues			21.2%

Weighted Average G&A as a Percent of Total Revenues	21.2%
Revenues as Percent of Total Assets	x 12.9%
G&A as a Percent of Total Assets	2.7%
Mean Reported in Data Set	- 1.6%
Difference	1.2%

Sources: *NAIOP **IREM ***PKF

The second independent variable, Total Assets, indicates economies of scale exist in G&A. expenses. A strong negative correlation coefficient indicates that administration "below-the-line" can be spread among assets more effectively as the size of the portfolio increases. The third independent variable, Revenues as a Percent of Total Assets, indicates a strong positive correlation between the business intensity cash flow return to the portfolio. This does not mean that spending more money on the business would increase returns, just that there is a strong positive relationship between the two. This is a proverbial "chicken and egg" problem; are G&A expenses higher because income is higher or is income higher because G&A expenses are higher? Both may be true to some extent since G&A expenses

are recognized as variable in "above-the-line" property operations while their scale economies display characteristics of fixed elements.

Fourteen REITs in the data set listed advisory fees separately from other G&A expenses. Advisory fees represent management fees for the portfolio similar to asset/portfolio management fees for private investment funds. They averaged 46 basis points as a percent of total assets and 124 basis points as a percent of total capitalization. A study of 52 large private real estate porfolios in 1991 surveyed asset management fees. A total of $732 billion of assets were represented by 52 pension plan sponsors. Mean responses equaled 64 basis points of current asset values. The average size of the private portfolio is $996.2 million while the average size of REITs in the data set is $134.4 million. The results seem to indicate higher management costs for larger portfolios. To test for the existence of any scale diseconomies, the ratio of advisory fees to total assets were regressed against total assets and total revenues in exhibit 5.4 below.

Exhibit 5.4 Scale Economies in Advisory Fees

Dependent Variable	*Advisory Fees/Total Assets*	
Constant	0.0031	
Std Err of Y Est	0.0021	
R Squared	0.2826	
No. of Observations	14	
Degrees of Freedom	11	
		Total
Independent Variables	*Total Assets*	*Revenues*
Coefficients	5.70E-09	6.49E-08
Standard Errors	3.85E-09	5.01E-08
T-Statistics	1.4831	1.2967

The two independent variables account for only 28% of the variability in advisory fees, and they are marginally significant around the 80% confidence interval. However, the positive correlation coefficients do support the evidence of diseconomies of scale in

advisory fees. As the portfolio grows, the intensity of portfolio management grows. It should be mentioned that there may be differences in management incentives given the size of the portfolios. Stock incentives not uncommon in smaller companies might be occurring more often in REITs than in the larger private funds. Stock incentives do not appear on the income statement.

5.3 Conclusions

The schedule below summarizes G&A expenditures for both REITs and RECs. G&A expenses are dictated more by the sizes of the portfolios than the incomes or prices. With all three relative measures, REITs are shown to be less business intensive than RECs. by an average of 2.0% of total assets.

REIT Results	G&A as a % of Revenues	G&A as a % of Total Cap.	G&A as a % of Total Assets
Minimum Value	3.69%	0.24%	0.48%
Maximum Value	58.69%	52.46%	5.72%
Average Value	***14.18%***	***7.04%***	***1.56%***
Standard Deviation	12.68%	12.13%	1.13%
Coefficient of Variation	89.48%	172.25%	72.57%
Average Adjusted for "Above-the-Line" G&A	*21.2%*	*12.3%*	*2.7%*
REC Results			
Minimum Value	1.16%	1.05%	0.30%
Maximum Value	191.95%	100.13%	39.77%
Average Value	***36.60%***	***21.44%***	***6.56%***
Standard Deviation	37.64%	22.86%	8.01%
Coefficient of Variation	102.84%	106.63%	122.22%

The presence of a relatively tight fit of REIT G&A expenses around a mean is indicative of the presence of an operating business component in real estate investing. Although it appears that REITs are less business intensive than RECs, differences in the nature of underlying assets in each category could account for the 2% difference. The cost of assets in RECs should be lower than REITs as they generally represent work in process before

any developer's profit. REITs are comprised of finished products with a cost basis inclusive of any developers profit. These differences would also cary through into differences wih total capitalization and revenues as nonoperating properties are not yet generating income. Thus, the 2% difference in G&A expenses is likely due to the nature of underlying assets which lends support to the idea that REITs are just as business intensive as RECs.

An interesting finding was made in scale economies. Although the size of the REIT in total assets produced significant economies of scale in G&A expenses, the reverse happened with advisory fees when separated. In other words, real estate portfolios appear to become relatively *more* management intensive the larger they become. This lends support to the idea that each individual property is a separate business unto itself requiring its own unique strategic plan and business management. As the portfolio increases in size, it resembles a large conglomerate of businesses requiring more sophistication and personnel to coordinate the many functions of its many owned companies.

This study does not reveal that total G&A expenditures have a significant affect on REIT pricing discounts or premiums. The reasons for these price differences relative to net asset values must somewhere other than on the financial statements. Anticipated growth, tenant mix, quality management, inside ownership, conflicts of interest, and geographic focus are other variables not included in this study which may impact relative pricing. A survey of real estate industry analysts was conducted by Elaine Vakalopoulos at M.I.T. into REIT pricing. All respondents indicated that management quality was a major consideration in REIT price determinations. The following quotes from the survey reveal the importance of management commitment to the overall success of real estate.

"(Investors) prefer to see self advised/administered REITs. They feel that an outside advisor makes money for itself, not really looking out for the interest of the REIT. People are buying into management and paying a premium for it... (Investors) like to see at least 5% to 10% of inside ownership." *John Litzius, Green Street Advisors*

"Look at (market's perception of) how the sponsor of REITs are watching out for their interests verses capitalizing on their own." *Robert Vogelzang, Arthur Andersen & Company*

"Conflicts and management incentives are critical; management has to prove via past performance that they are credible, and that going forward will be strong." *Frederick Carr, Jr., The Penobscot Group*

"(Investors) look for highly focused, dedicated management free from conflicts - that means they only work on the REIT, don't have outside interests, (and) are not managing multiple REITs." *Martin Cohen, Cohen & Steers Capital Management Company*

Chapter 6
Measuring Business Value-Added

In the previous chapter evidence of an operating business was shown to be present in commercial real estate. Property and asset management are necessary to maintain the fiscal well-being of investment property in a competitive market. Although not implicit in the data set used in the previous chapter, respondents to a survey of REIT pricing did reveal that management performance and commitment to individual properties does affect REIT pricing. This implies an ability of management to add value to real estate. This chapter focuses on a method of extracting and measuring extrinsic value-adding due to superior property/asset management.

6.1 Previous Research

Jeffrey Fisher at Indiana University recognizes the potential for adding value to real estate through entepreneurship.[21] He calls it the return to innovation and entreprenuership, or profit in the economic sense. One definition of profit is "a surplus earned above the normal return on investment of capital in a business..."[22] It is a return for bearing risk and uncertainty left over after paying for land, labor, and capital. Thus, it is a residual factor received after all required returns are satisfied for maintaining the investment in tangible items. To ignore this potential business profit in operating properties beyond what is due to passive investors can overstate the return to capital.

The idea that business value is residual to the real estate is confirmed by a number of sources. In accounting, profit is recognized as excess revenues over costs incurred to obtain revenues. In other words, it is recognized only after cost of goods sold are satisfied. Published articles from the appraisal industry view business value as residual to a market

[21]Fisher, p.22.
[22]Ammer, p.370.

return to land, improvements, and furniture, fixtures, and equipment. Thomas Downs of the University of Alabama devised an alternative method for valuing common stock's fundamental value. His method was the discounted sum of pre-tax cash flows on fixed assets less taxes plus tax savings through depreciation. He compared his conclusions to market values and found to consistently vary around fundamental fixed asset values. Certain industries were consistently "overvalued" and "undervalued" by the market. He theorized the difference to be fundamental values of "other assets" such as intangibles and the present value of growth opportunities.[23] The consistent theme in all these studies is that the business receives residual income after satisfying a return on investment to all three factors of production including compensation for management, risk bearing, innovation, entreprenuership.

6.2 Demonstration of Deriving Residual Business Value

Business value is residual to the tangible components of land and capital. Any additional value due to extraordinary planning and management, business partnerships, and/or franchises and trade names can be quantified with a business value residual technique. This involves separating land, improvements, and furniture, fixtures, and equipment (FF&E). any residual income left after a market return on these tangible components is accounted for can be capitalized into a measure of the residual value for business enhancement.

One theory suggests beginning with replacement cost of tangible components of land and all improvements. This is useful as costs are accepted as an indicator to the upper-limit of value. If values exceed costs by more than a market level of development profit, additions to supply will occur until market equilibrium corrects itself. The weakness of using replacement costs as a starting point is when the market is oversupplied. In this case the

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[23]Downs, Thomas W., "An Alternative Approach to Fundamental Analysis: The Asset Side of the Equation," *The Journal of Portfolio Management*, Winter 1991.

market is very slow to correct itself since removal of supply is much slower than the creation of supply. Equilibrium can be reached only at the rate of depreciation of existing structures; that is, a reduction in supply of 1% to 2% per year. Using replacement costs as a basis for a business value residual technique could undervalue the business. This is an important point since oversupplied markets are depressed increasing the importance of effective business management to preserve value and mitigate specific risks.

A better starting point is the market value of the real estate separate from the going concern. With this method, replacement costs are adjusted for external obsolescence from locally-depressed markets. They are also adjusted for internal functional obsolescence. These items include physical inadequacies or superadequacies in the improvements which reduce the marketability of the property to the user. Although some functional items can be cured by attentive management, others feasibly can not resulting in sunk costs which should considered. Thus a replacement cost adjusted for all forms of accumulated depreciation is a better starting point for a business value residual technique.

To demonstrate this technique, a congregate care senior housing facility in Houston is presented. The following are acquisition cost figures for this facility with net income from the first year of operations following acquisition.

Current Depreciated Replacement Costs:	
Land	$1,368,855
Buildings	8,766,937
Furniture, Fixtures, & Equipment	795,004
Total Cost	$10,930,796
Actual Net Operating Income	$1,266,523

Current replacement costs represents the costs to construct a building of equal utility at current prices. These costs include all direct and indirect costs and are net of all accumulated depreciation. Accumulated depreciation includes losses due to physical deterioration and obsolescence from internal functional aspects and external market forces. The current depreciated replacement cost equals a current investment in the real estate. Annual net operating income is rental income plus additional income from all tenant services net of operating and departmental expenses. It is also net of management and all G&A expenses in order to determine any residual value-added income for the property.

Each tangible component is serviced with a market return on investment and an allowance for recapture of initial investment. The return on investment is consistent with investors' target real return plus an inflation premium. The recapture component is calculated as an annual sinking fund for each component over its economic life. The total real return, inflation premium, and recapture sinking fund is the annual dividend for each property component. Land is not a depreciating component and is indestructible with an infinite useful life. As such, there is no annual allowance for cost recapture for this component.

In this example, it is assumed investors require a 6.0% real return on investment. This is consistent with current market expectations. With annual inflation of 3.2%, the total nominal return on investment is 9.2%. This assumes expected annual appreciation to be equal to annual inflation. Should expected appreciation exceed inflation, the difference would be deducted from real return to determine the appropriate required current dividend rate. The improvements have an estimated economic life of 45 years, and the FF&E has an average economic life of 10 years. Therefore, an annual recapture of 0.2% and 6.5% (sinking fund at 9.2%) is added to the nominal return on investment for these two components respectively. Required income on each tangible component is the product of current depreciated cost and the required annual dividend. The sum of these components

equals the required annual dividend for the real estate. The following schedule presents these calculations.

Component	Depreciated Replacement Cost	Real Return	Inflation Premium	Annual Recapture	Annual Dividend Rate	Annual Dividend
Land	$ 1,368,855	6.0%	3.2%	0.0%	9.2%	$ 125,934
Improvements	8,766,537	6.0%	3.2%	0.2%	9.4%	824,054
FF&E	795,004	6.0%	3.2%	6.5%	15.7%	124,816
Totals	$10,930,796					$1,073,804

As such, an annual return of $1,073,804 is required for the land, labor, and capital factors of production in this business. The weighted average annual dividend for the tangible real estate components is 9.8%. Any positive difference between actual income and required income is residual value-added profit to the business. This is income over and above that which is necessary to award the intangible components of the property necessary to maintain the investment at current market levels. In this example, $192,719 or 17.9% of required annual income is additional annual business profit received from operations.

This residual business profit can be capitalized into a contributory value of the business. The appropriate annual dividend rate for the business depends upon the strength of this income stream, potential growth, and anticipated inflation. It can be derived from the public real estate market by a simple extraction calculation. The dividend rate is likely to be above those associated with the tangible real estate components of the going concern. The risk of uncertainty in this income stream is greatly increased due to its subordinated position to the fixed assets. For purposes of this demonstration, a dividend rate can be extracted from the data set used in Chapter 5 if we assume the average real estate dividend rate to be the same as the facility used here, or 9.8%. In the data set an average premium of 6.1% was paid for net property revenues of 12.9% of total assets. In other words, a price of 6.1% was paid for business profit of 3.1% indicating an annual dividend of 50.8%.

This assumes the premium paid was for business profit only and no other intangible assets. It is important to note the assumptions made here to derive the business dividend rate are not supportable by the data set and are made only for demonstration purposes of yielding an estimate of business value-added.

The excess business profit can now by capitalized into an estimate of business value-added using the 50.8% business dividend rate or $379,368. The value components of the entire going concern are summarized below.

Value Component	Contributory Value	Proportion to the Whole	Annual Dividend	Dividend Rate
Tangible Real Estate	$10,930,796	96.6%	$1,073,804	9.8%
Value-Added from Business	379,368	3.4%	192,719	50.8%
Total Value of the Going Concern	$11,310,164		$1,266,523	11.2%

Chapter 7
Conclusion

This paper has identified the operating business component of investing in real estate, its importance in property operations, and how it is priced at both the portfolio level and the property level. Real estate is viewed as having investment and operating characteristics which renders it both an asset class within the investment world and a distinct business area within the real economy. The role of property/asset management has recently become the focus of intense scrutiny as it is realized as a vital function in maintaining and enhancing value in a competitive market. Superior management able to out perform the market is an intangible asset to the business operations.

Business operations affect market equilibrium in both the capital and property markets. Superior real estate management can facilitate an atmosphere that is less sensitive to rent levels thereby making demand more elastic. Strategic planning and repositioning by asset managers can maintain the marketability of existing space thereby increasing the economic life of real estate. Both of these impacts in the space market can reduce the perceived risk of assets in the capital market. Therefore, effective management can maintain and even enhance property values.

There are two sources of business enhancement. The first is at the property level where real estate competes in the space market. Here property and asset managers work to delivery a superior products to customers. Product differentiation through services and amenities can enable managers to outperform local competition and reduce specific risk. The second source is at the portfolio level with asset and portfolio managers. Here a global perspective and national recognition can provide individual assets with a competitive edge with prospective tenants and sources of capital. Implementation of

Modern Portfolio Theory at this level enables management to add value to a collective pool of real estate assets by reducing risk-adjusted returns. Reduced risk enables properties to compete more effectively in the capital market and increase liquidity.

All these issues are important to large institutional investors who are rethinking real estate's role in a multi-asset portfolio. Unless these investments are made through the public REIT market, real estate will require owner involvement in the business. In today's competitive market, this involvement requires a high of sophistication and knowledge of local markets. Institutional investors are being forced to accept more of the operational responsibility of the investments. Those who do not have this in house, are forced to find third-party surrogate owners to manage the real estate. Due to the required level of sophistication, intensity of human involvement, and potential to add value through intangible assets, a substantial cost is required for business management. This cost must be incurred whether real estate is acquired in the private market by direct costs or whether real estate is acquired through the public market through indirect costs of lower "below-the-line" earnings.

The current debate over asset management fees can be resolved through a recognition of these operating business components. Opponents to current fee structures argue that asset managers should be compensated similar to money managers. These people fail to realize the intensity of involvement and influence real estate asset managers have over the performance of properties in their portfolio. The example in Chapter 6 revealed the result of good business management adding 4% to the value of the property. This is more than simply maximizing the risk-adjusted rate of return strived for by money managers. It is actually adding value through entrepreneurial profit. Reform of asset management compensation is needed, but not based on money managers who have no influence on individual investment performance.

Recognition of the operating business and potential to add value could change performance measures for asset managers. Viewing the operating business and the market separately could enable owners to more effectively asses the performance of the going concern. A problem asset might be the result of poor market conditions, ineffective business management, or both. Being able to separate these components could facilitate easy, objective performance assessment. Rather than based upon asset values, managers could be compensated based upon relative performance to the market through business management benchmarks. Superior managers should be recognized by their ability to create additional business profit. These efforts should be encouraged though profit sharing and compensation similar to other corporate executives. The current fee structure is based upon the value of the asset and the asset management function is viewed as a necessary evil for *maintaining* the value of the asset. With the recognition of the potential to add value, competitive and cost effective asset management fees of over 100 basis points should be obtainable by superior managers.

Finally, the recognition of business value could reduce operating leverage in some properties by reducing the fixed expense of ad valorem taxes. To ignore the potential business profit in operating properties beyond what is due to land and improvements can overstate the return to the real estate. Ad valorem taxes are assessed based upon current market values of the real estate only. Overstating income to the real estate would cause an overstatement of the value of the real estate and result in higher than justified property taxes.

Thus the implications of recognizing the operating business characteristics of real estate are far reaching in the industry. From the top decision makers in large real estate portfolios to individual property managers, real estate is a business that can be controlled

to a higher degree by investors. As real estate markets continue to be relatively inefficient, this investor control should continue to provide opportunities to out perform the competition.

REIT Data Set

Name	Property Types	Shares Outstanding	Price/ Share	Total Capitalztn.	Total Assets	Total Cap./ Total Assets	Long-Term Liabilities	Long-Term Debt Ratio	Net Assets	Total Cap./ Net Assets	Owned Real Est.	Percent Real Est.
Boddie-Noell	Restaurant	2,850,000	14.13	40,270.5	40,465	0.995	12,000	29.7%	28,465	1.415	38,762	95.8%
Bradley REIT	Retail	7,538,000	7.25	54,650.5	176,594	0.309	116,761	66.1%	59,833	0.913	35,574	20.1%
Burham Pacific Props.	Mixed	8,837,000	15.50	136,973.5	259,790	0.527	163,145	62.8%	96,645	1.417	239,401	92.2%
California REIT	Mixed	9,118,000	2.00	18,236.0	55,477	0.329	15,682	28.3%	39,795	0.458	39,119	70.5%
Cedar Income Fund	Mixed	2,259,646	4.13	9,332.3	17,439	0.535	1,560	8.9%	15,879	0.588	16,318	93.6%
Chicago Dock & Canal	Office	5,944,200	8.75	52,011.8	138,320	0.376	41,080	29.7%	97,240	0.535	110,157	79.6%
CleveTrust Realty Inv.	Mixed	1,956,772	2.38	4,657.1	50,249	0.093	34,519	68.7%	15,730	0.296	45,421	90.4%
Dial REIT	Retail	5,264,627	9.25	48,697.8	154,197	0.316	81,253	52.7%	72,944	0.668	116,404	75.5%
Eastgroup Properties	Mixed	2,459,000	14.13	34,745.7	85,529	0.406	35,643	41.7%	49,886	0.697	73,320	85.7%
Eastover Corporation	Mixed	1,144,000	5.63	6,440.7	17,573	0.367	4,013	22.8%	13,560	0.475	17,015	96.8%
EQK Realty Inv. I	Retail	7,589,344	2.25	17,076.0	103,690	0.165	86,713	83.6%	16,977	1.006	86,669	83.6%
Federal REIT	Retail	22,767,000	22.87	520,681.3	603,811	0.862	352,647	58.4%	251,164	2.073	485,685	80.4%
HMG/Courtland Props.	Mixed	1,245,635	4.38	5,455.9	30,798	0.177	7,131	23.2%	23,667	0.231	19,772	64.2%
Hotel Investors Trust	Hotel	12,132,948	1.00	12,132.9	210,945	0.058	170,297	80.7%	40,648	0.298	177,743	84.3%
HRE Properties	Mixed	5,285,000	11.87	62,733.0	137,855	0.455	31,226	22.7%	106,629	0.588	113,951	82.7%
ICM Property Inv.	Off/Ind	5,976,000	3.13	18,704.9	47,509	0.394	9,513	20.0%	37,996	0.492	45,553	95.9%
IRT Property Co.	Mixed	14,896,369	10.63	158,348.4	297,591	0.532	122,309	41.1%	175,282	0.903	271,283	91.2%
KIMCO Realty	Retail	16,589,795	27.13	450,081.1	453,330	0.993	278,026	61.3%	175,304	2.567	395,037	87.1%
Koger Properties	Office	27,196,600	0.41	11,048.6	361,015	0.031	525,488	145.6%	(164,473)	-0.067	312,112	86.5%
MSA Realty Corp.	Retail	6,495,701	5.50	35,726.4	33,332	1.072	9,736	29.2%	23,596	1.514	17,178	51.5%
New Plan Realty Trust	Mixed	48,384,568	22.13	1,070,750.5	530,827	2.017	18,935	3.6%	511,892	2.092	270,350	50.9%
Nooney Realty Trust	Off/Ind	866,624	7.63	6,612.3	17,095	0.387	4,915	28.8%	12,180	0.543	16,036	93.8%
One Liberty Properties	Retail	2,147,395	11.12	23,879.7	32,340	0.738	2,754	8.5%	29,586	0.807	6,272	19.4%
Pennsylvania REIT	Mixed	8,640,223	21.00	181,444.7	66,250	2.739	12,296	18.6%	53,954	3.363	50,385	76.1%
Pitts. & W. Virgin. RR.	Land	1,510,000	7.13	10,766.3	9,179	1.173	0	0.0%	9,179	1.173	9,150	99.7%
Property Capital Trust	Mixed	9,029,000	4.25	38,373.3	174,100	0.220	76,337	43.8%	97,763	0.393	168,578	96.8%
Property Trust of Amer.	Mixed	19,435,000	12.38	240,605.3	342,235	0.703	85,626	25.0%	256,609	0.938	317,914	92.9%
Santa Anita Realty Ent.	Mixed	11,256,413	17.87	201,152.1	255,213	0.788	164,587	64.5%	90,626	2.220	245,806	96.3%
Storage Equities, Inc.	Industrial	15,980,978	9.13	145,906.3	401,719	0.363	53,675	13.4%	348,044	0.419	391,224	97.4%
Trammell Crow R.E. Inv.	Industrial	9,075,400	1.75	15,882.0	110,446	0.144	69,069	62.5%	41,377	0.384	90,000	81.5%
United Dominion REIT	Apartment	17,302,000	22.25	384,969.5	390,365	0.986	183,245	46.9%	207,120	1.859	382,309	97.9%
USP REIT	Mixed	3,880,000	2.75	10,670.0	38,235	0.279	21,003	54.9%	17,232	0.619	35,276	92.3%
Washington REIT	Office	28,209,000	18.25	514,814.3	185,673	2.773	2,201	1.2%	183,472	2.806	125,304	67.5%
Wetterau Properties	Industrial	1,330,911	19.38	25,793.1	99,610	0.259	80,895	81.2%	18,715	1.378	97,454	97.8%
Total Entries				34	34	34	34	34	34	34	34	34
Minimum Value				4,657	9,179	0.031	0	0.0%	(164,473)	-0.067	6,272	19.4%
Maximum Value				1,070,750	603,811	2.773	525,488	145.6%	511,892	3.363	485,685	99.7%
Average Value				134,401	174,376	0.664	84,538	42.1%	89,839	1.061	143,016	81.4%
Standard Deviation				222,685	161,663	0.667	113,874	30.3%	120,105	0.823	136,776	20.1%
Coefficient of Variation				165.7%	92.7%	100.5%	134.7%	72.0%	133.7%	77.6%	95.6%	24.6%

REIT Data Set

Name	Annual Revenues	Revs./ T..A.	Revs/ T. C.	Real Est. Income	R. E. Inc./ Revenues	Net Earnings	Net Earn./ Total Revs.	"90-"92 Gth/Yr	G&A Exp.	Adv. Fees	G&A/ Revs.	G&A/ T. C.	G&A/ T. A.	A.F./ T.A.	A.F./ T. C.
Boddie-Noell	5,373	13.3%	13.3%	5,333	99.3%	3,159	58.8%	1.73%	381	193	7.1%	0.95%	0.94%	0.48%	0.48%
Bradley REIT	15,243	8.6%	27.9%	2,709	17.8%	(8,395)	-55.1%	-30.54%	5,277	1,240	34.6%	9.66%	2.99%	0.70%	2.27%
Burham Pacific Props.	28,025	10.8%	20.5%	26,738	95.4%	1,058	3.8%	8.80%	1,739		6.2%	1.27%	0.67%		
California REIT	5,889	10.6%	32.3%	3,641	61.8%	(10,279)	-174.5%	-11.64%	480	104	8.2%	2.63%	0.87%	0.19%	0.57%
Cedar Income Fund	2,122	12.2%	22.7%	2,052	96.7%	395	18.6%	2.35%	212	53	10.0%	2.27%	1.22%	0.30%	0.57%
Chicago Dock & Canal	65,139	47.1%	125.2%	64,433	98.9%	45,209	69.4%	0.72%	2,401		3.7%	4.62%	1.74%		
CleveTrust Realty Inv.	9,785	19.5%	210.1%	9,400	96.1%	(1,289)	-13.2%	-14.18%	739		7.6%	15.87%	1.47%		
Dial REIT	16,607	10.8%	34.1%	14,362	86.5%	1,221	7.4%	5.10%	1,167		7.0%	2.40%	0.76%		
Eastgroup Properties	13,695	16.0%	39.4%	12,211	89.2%	(3,673)	-26.8%	-4.80%	1,053	170	7.7%	3.03%	1.23%	0.20%	0.49%
Eastover Corporation	2,339	13.3%	36.3%	2,332	99.7%	(1,793)	-76.7%	32.07%	377	125	16.1%	5.85%	2.15%	0.71%	1.94%
EQK Realty Inv. I	11,661	11.2%	68.3%	11,661	100.0%	(8,850)	-75.9%	0.89%	1,108		9.5%	6.49%	1.07%		
Federal REIT	100,197	16.6%	19.2%	94,683	94.5%	9,430	9.4%	4.96%	4,062		4.1%	0.78%	0.67%		
HMG/Courtland Props.	2,771	9.0%	50.8%	1,261	45.5%	546	19.7%	-11.95%	1,403		50.6%	25.72%	4.56%		
Hotel Investors Trust	25,337	12.0%	208.8%	22,803	90.0%	(19,743)	-77.9%	0.27%	6,365		25.1%	52.46%	3.02%		
HRE Properties	10,516	7.6%	16.8%	8,051	76.6%	1,588	15.1%	-2.72%	2,154	138	20.5%	3.43%	1.56%	0.10%	0.22%
ICM Property Inv.	4,633	9.8%	24.8%	4,633	100.0%	(18,125)	-391.2%	-5.91%	2,719		58.7%	14.54%	5.72%		
IRT Property Co.	26,466	8.9%	16.7%	23,244	87.8%	10,974	41.5%	6.81%	1,956		7.4%	1.24%	0.66%		
KIMCO Realty	61,115	13.5%	13.6%	57,190	93.6%	18,964	31.0%	10.71%	6,886		11.3%	1.53%	1.52%		
Koger Properties	71,708	19.9%	649.0%	66,585	92.9%	(151,213)	-210.9%	-32.53%	5,238		7.3%	47.41%	1.45%		
MSA Realty Corp.	2,137	6.4%	6.0%	0	0.0%	(2,791)	-130.6%	-12.81%	731	136	34.2%	2.05%	2.19%	0.41%	0.38%
New Plan Realty Trust	49,444	9.3%	4.6%	32,347	65.4%	49,445	100.0%	9.33%	2,570		5.2%	0.24%	0.48%		
Nooney Realty Trust	1,576	9.2%	23.8%	1,565	99.3%	285	18.1%	2.53%	169	111	10.7%	2.56%	0.99%	0.65%	1.68%
One Liberty Properties	2,968	9.2%	12.4%	741	25.0%	2,436	82.1%	-17.23%	449	74	15.1%	1.88%	1.39%	0.23%	0.31%
Pennsylvania REIT	13,901	21.0%	7.7%	13,106	94.3%	8,677	62.4%	-3.38%	1,859		13.4%	1.02%	2.81%		
Pitts. & W. Virgin. RR.	917	10.0%	8.5%	915	99.8%	831	90.6%	0.07%	86		9.4%	0.80%	0.94%		
Property Capital Trust	22,302	12.8%	58.1%	22,260	99.8%	(15,635)	-70.1%	-6.69%	1,954	1,091	8.8%	5.09%	1.12%	0.63%	2.84%
Property Trust of Amer.	21,040	6.1%	8.7%	19,271	91.6%	8,986	42.7%	59.95%	3,147	2,711	15.0%	1.31%	0.92%	0.79%	1.13%
Santa Anita Realty Ent.	36,758	14.4%	18.3%	34,440	93.7%	10,211	27.8%	6.79%	4,156		11.3%	2.07%	1.63%		
Storage Equities, Inc.	44,408	11.1%	30.4%	43,409	97.8%	15,123	34.1%	4.66%	3,992	2,612	9.0%	2.74%	0.99%	0.65%	1.79%
Trammell Crow R.E. Inv.	9,952	9.0%	62.7%	9,692	97.4%	(17,593)	-176.8%	-7.63%	1,637	435	16.4%	10.31%	1.48%	0.39%	2.74%
United Dominion REIT	38,101	9.8%	9.9%	36,699	96.3%	6,335	16.6%	19.79%	2,231		5.9%	0.58%	0.57%		
USP REIT	3,926	10.3%	36.8%	3,717	94.7%	458	11.7%	-9.51%	384		9.8%	3.60%	1.00%		
Washington REIT	27,113	14.6%	5.3%	23,802	87.8%	20,429	75.3%	6.25%	2,808		10.4%	0.55%	1.51%		
Wetterau Properties	13,266	13.3%	51.4%	13,266	100.0%	1,836	13.8%	8.88%	656		4.9%	2.54%	0.66%		
Total Entries	34	34	34	34	34	34	34	34	34	14	34	34	34	14	14
Minimum Value	917	6.1%	4.6%	0	0.0%	(151,213)	-391.2%	-32.5%	86	53	3.7%	0.24%	0.48%	0.10%	0.22%
Maximum Value	100,197	47.1%	649.0%	94,683	100.0%	49,445	100.0%	60.0%	6,886	2,711	58.7%	52.46%	5.72%	0.79%	2.84%
Average Value	22,542	12.9%	58.1%	20,252	84.3%	(1,229)	-18.5%	0.6%	2,134	657	14.2%	7.04%	1.56%	0.46%	1.24%
Standard Deviation	23,707	7.0%	115.4%	22,519	25.4%	30,350	101.9%	16.3%	1,828	928	12.7%	12.13%	1.13%	0.23%	0.94%
Coefficient of Variation	105.2%	54.7%	198.7%	111.2%	30.1%	-2469.7%	-550.0%	2623.5%	85.7%	141%	89.5%	172.2%	72.6%	50.1%	75.9%

REC Data Set

Name	Property Types	Shares Outstanding	Price/ Share	Total Capitalztn.	Total Assets	Total Cap./ Total Assets	Long-Term Liabilities	Long-Term Debt Ratio	Net Assets	Total Cap./ Net Assets	Owned Real Est.	Percent Real Est.
AMREP Corp.	Residential	6,617,819	5.38	35,603.9	168,390	0.211	65,282	38.8%	103,108	0.345	106,023	63.0%
Blue Ridge R.E. Co.	Land	2,162,308	6.88	14,876.7	26,037	0.571	6,883	26.4%	19,154	0.777	22,780	87.5%
BTR Realty	Residential	8,503,916	1.88	15,987.4	153,212	0.104	111,337	72.7%	41,875	0.382	146,862	95.9%
Centex Corporation	Apartment	15,262,136	25.63	391,168.5	2,347,452	0.167	232,294	9.9%	2,115,158	0.185	938,000	40.0%
Christiana Companies	Residential	12,000,000	30.38	364,560.0	85,894	4.244	29,293	34.1%	56,601	6.441	9,999	11.6%
Cousins Properties, Inc.	Mixed	21,716,911	13.13	285,143.0	195,791	1.456	9,079	4.6%	186,712	1.527	64,546	33.0%
Equitable Real Estate	Retail	10,700,000	2.13	22,791.0	130,748	0.174	77,245	59.1%	53,503	0.426	118,416	90.6%
Heartland Properties	Mixed	2,142,438	8.38	17,953.6	35,702	0.503	0	0.0%	35,702	0.503	23,044	64.5%
International Leisure	Hotel	11,229,991	0.75	8,422.5	15,478	0.544	4,865	31.4%	10,613	0.794	9,798	63.3%
Kaufman & Broad Homes	Residential	29,488,315	13.88	409,297.8	1,431,760	0.286	804,447	56.2%	627,313	0.652	753,805	52.6%
Koll Management	Mixed	3,300,000	11.25	37,125.0	14,500	2.560	0	0.0%	14,500	2.560	0	0.0%
La Quinta Motor Inns	Hotel	13,423,000	18.13	243,359.0	539,183	0.451	274,824	51.0%	264,359	0.921	499,138	92.6%
Lennar Corp.	Residential	20,293,000	25.88	525,182.8	980,261	0.536	351,804	35.9%	628,457	0.836	513,488	52.4%
Major Realty Corp.	Residential	6,893,378	1.63	11,236.2	58,183	0.193	51,745	88.9%	6,438	1.745	56,613	97.3%
Milestone Properties	Retail	5,581,464	4.34	24,223.6	92,948	0.261	36,874	39.7%	56,074	0.432	72,783	78.3%
Mission West Props.	Mixed	1,468,725	6.88	10,104.8	59,731	0.169	38,229	64.0%	21,502	0.470	50,851	85.1%
National Realty	Mixed	2,348,478	19.63	46,100.6	303,059	0.152	354,861	117.1%	(51,802)	-0.890	251,159	82.9%
Oriole Homes	Residential	4,886,000	9.50	46,417.0	158,937	0.292	66,729	42.0%	92,208	0.503	147,834	93.0%
Presley Companies	Residential	18,500,000	4.50	83,250.0	523,752	0.159	345,743	66.0%	178,009	0.468	491,734	93.9%
Ryland Group	Residential	16,588,847	21.88	362,964.0	2,896,681	0.125	1,704,136	58.8%	1,192,545	0.304	601,289	20.8%
Sonesta Intl. Hotel Corp.	Hotel	3,051,088	5.63	17,177.6	57,904	0.297	24,539	42.4%	33,365	0.515	32,184	55.6%
Standard Pacific Corp.	Residential	30,574,746	6.50	198,735.8	953,394	0.208	367,635	38.6%	585,759	0.339	505,627	53.0%
United Inns	Hotel	2,640,942	2.25	5,942.1	152,517	0.039	101,603	66.6%	50,914	0.117	117,587	77.1%
Webb Del. Corp.	Residential	15,783,793	18.13	286,160.2	443,636	0.645	172,259	38.8%	271,377	1.054	389,889	87.9%
Total Entries				24	24	24	24	24	24	24	24	24
Minimum Value				5,942	14,500	0.039	0	0.0%	(51,802)	-0.890	0	0.0%
Maximum Value				525,183	2,896,681	4.244	1,704,136	117.1%	2,115,158	6.441	938,000	97.3%
Average Value				144,324	492,715	0.598	217,988	45.1%	274,727	0.892	246,810	65.5%
Standard Deviation				166,733	752,759	0.944	368,241	27.6%	487,464	1.344	269,707	28.2%
Coefficient of Variation				115.5%	152.8%	157.9%	168.9%	61.2%	177.4%	150.7%	109.3%	43.1%

REC Data Set

Name	Annual Revenues	Revs./ T..A.	Revs/ T. C.	Real Est. Income	R. E. Inc./ Revenues.	Net Earnings	Net Earn./ Total Revs.	"90-"92 Gth/Yr	G&A Exp.	G&A/ Revs.	G&A/ T. C.	G&A/ T. A.
AMREP Corp.	73,365	43.6%	206.1%	40,759	55.6%	(6,826)	-9.3%	-6.87%	13,836	18.9%	38.86%	8.22%
Blue Ridge R.E. Co.	2,622	10.1%	17.6%	2,470	94.2%	180	6.9%	-8.79%	1,339	51.1%	9.00%	5.14%
BTR Realty	22,655	14.8%	141.7%	21,619	95.4%	167	0.7%	5.47%	1,223	5.4%	7.65%	0.80%
Centex Corporation	1,101,598	46.9%	281.6%	73,804	6.7%	34,557	3.1%	2.22%	12,807	1.2%	3.27%	0.55%
Christiana Companies	15,423	18.0%	4.2%	6,661	43.2%	5,218	33.8%	36.04%	5,250	34.0%	1.44%	6.11%
Cousins Properties, Inc.	19,094	9.8%	6.7%	4,579	24.0%	15,713	82.3%	-5.03%	4,585	24.0%	1.61%	2.34%
Equitable Real Estate	12,764	9.8%	56.0%	11,970	93.8%	(7,834)	-61.4%	3.21%	2,097	16.4%	9.20%	1.60%
Heartland Properties	4,942	13.8%	27.5%	4,220	85.4%	(572)	-11.6%	28.23%	2,754	55.7%	15.34%	7.71%
International Leisure	4,298	27.8%	51.0%	4,298	100.0%	1,914	44.5%	183.10%	1,381	32.1%	16.40%	8.92%
Kaufman & Broad Homes	100,540	7.0%	24.6%	58,897	58.6%	28,198	28.0%	-10.51%	4,312	4.3%	1.05%	0.30%
Koll Management	29,096	200.7%	78.4%	0	0.0%	2,713	9.3%	28.92%	5,766	19.8%	15.53%	39.77%
La Quinta Motor Inns	118,332	21.9%	48.6%	111,244	94.0%	(8,754)	-7.4%	5.98%	23,961	20.2%	9.85%	4.44%
Lennar Corp.	137,410	14.0%	26.2%	59,523	43.3%	29,146	21.2%	10.63%	20,426	14.9%	3.89%	2.08%
Major Realty Corp.	1,640	2.8%	14.6%	1,485	90.5%	(3,671)	-223.8%	200.75%	3,148	192.0%	28.02%	5.41%
Milestone Properties	12,930	13.9%	53.4%	11,039	85.4%	1,218	9.4%	59.90%	3,471	26.8%	14.33%	3.73%
Mission West Props.	3,641	6.1%	36.0%	3,121	85.7%	(824)	-22.6%	-45.45%	1,487	40.8%	14.72%	2.49%
National Realty	58,639	19.3%	127.2%	54,418	92.8%	(3,167)	-5.4%	1.93%	21,139	36.0%	45.85%	6.98%
Oriole Homes	26,314	16.6%	56.7%	19,335	73.5%	5,050	19.2%	1.70%	14,544	55.3%	31.33%	9.15%
Presley Companies	84,905	16.2%	102.0%	52,455	61.8%	(10,489)	-12.4%	-13.37%	11,393	13.4%	13.69%	2.18%
Ryland Group	504,256	17.4%	138.9%	139,410	27.6%	27,520	5.5%	4.93%	179,167	35.5%	49.36%	6.19%
Sonesta Intl. Hotel Corp.	23,804	41.1%	138.6%	6,399	26.9%	5,644	23.7%	-12.31%	9,564	40.2%	55.68%	16.52%
Standard Pacific Corp.	71,554	7.5%	36.0%	15,025	21.0%	4,523	6.3%	12.14%	25,045	35.0%	12.60%	2.63%
United Inns	20,744	13.6%	349.1%	20,744	100.0%	(3,044)	-14.7%	-11.21%	5,950	28.7%	100.13%	3.90%
Webb Del. Corp.	59,157	13.3%	20.7%	59,157	100.0%	17,107	28.9%	4.06%	45,295	76.6%	15.83%	10.21%
Total Entries	24	24	24	24	24	24	24	24	24	24	24	24
Minimum Value	1,640	2.8%	4.2%	0	0.0%	(10,489)	-223.8%	-45.5%	1,223	1.2%	1.1%	0.3%
Maximum Value	1,101,598	200.7%	349.1%	139,410	100.0%	34,557	82.3%	200.8%	179,167	192.0%	100.1%	39.8%
Average Value	104,572	25.2%	85.1%	32,610	65.0%	5,570	-1.9%	19.8%	17,498	36.6%	21.4%	6.6%
Standard Deviation	235,634	39.1%	88.7%	37,034	33.0%	12,916	54.4%	56.8%	36,017	37.6%	22.9%	8.0%
Coefficient of Variation	225.3%	154.8%	104.1%	113.6%	50.8%	231.9%	-2868.2%	286.4%	205.8%	102.8%	106.6%	122.2%

PENSION REAL ESTATE ASSOCIATION
1991 PLAN SPONSOR SURVEY

This survey asks questions about the past and current real estate investment activities of your plan.
We also ask for your opinions about the future. Please identify yourself so that we can track our response rate.
We will not reveal any individual data or identify any respondents in our report. You will have complete anonymity.

Please answer the questions on these four pages and return them in the enclosed envelope to:
PREA, 95 Glastonbury Blvd., Glastonbury CT 06033. If you prefer, FAX these four pages
to PREA at 203 659 4784. Thanks for your cooperation.

NAME: _____ PLAN: _____

PUBLIC: 25 PRIVATE: 22 ENDOWMENT: 3 UNION: 1 OTHER: 1
TOTAL ASSETS: $ 732 B DEFINED BENEFIT: $ 383.8 B DEFINED CONTRIBUTION: $ 349 B
REAL ESTATE EQUITY: $ 36.4 B HYBRID R.E. DEBT $ 5.4 B MORTGAGES $ 7.3 B
OTHER REAL ESTATE: $ 2.7 B TYPE Securities

INVESTMENT HISTORY: PLEASE TELL US ABOUT YOUR PLAN'S REAL ESTATE INVESTMENT HISTORY.
IF YOU DO NOT HAVE REAL ESTATE INVESTMENTS, PLEASE FILL OUT THE FUTURE EXPECTATIONS QUESTIONS.

Our first real estate investment was $ 23 M (avg) in 19__. We invested in __individual property
Please tell us how much of each type of investment vehicle your plan has acquired as of the end of your last fiscal year.
Please note which year your plan first acquired each type of investment

VEHICLE:	open–end fund	blind pool closed–end fund	property–specific closed–end fund	separate account	co–investment	investment managed in–house
$	115 M	112 M	90 M	709 M	210 M	1,983 M
first acquired in	1982	1985	1986	1985	1985	1973

Our real estate portfolio mix is approximately as follows. (Please estimate $ or % allocations)

Property Type	Office	Industrial	Retail	Apartments	Hotel
	36%	14%	28%	9%	2%
Property Type	**Mixed Use**	**Land**	**Timber**	**Cropland**	**Other**
	2%	2%	2%	2%	3%

We have invested in the following types of real estate deals using these investment vehicles.
(Please estimate the $ or % allocation to each combination of deal type and investment vehicle.)

VEHICLE / Deal Type	closed–end fund	separate account	j.v. with developer in commingled fund	j.v. with developer in separate account	j.v. w/developer managed in–house	co–investment w/ institutional partner
	millions					
completed & leased	2,876	15,744	1,473	1,504	3,185	1,227
completed, in lease–up phase	322	871	885	224	510	196
under development	369	104	7	224	578	0
long term land holding	135	631	11	0	30	0

INVESTMENT OBJECTIVES: PLEASE RANK THE INVESTMENT OBJECTIVES BELOW FROM 1=MOST IMPORTANT TO 6=LEAST IMPORTANT. PLEASE RANK THEM FOR EACH OF THE THREE TIME PERIODS SHOWN.

TIME / OBJECTIVES	YESTERDAY original investment motivations and objectives	TODAY our current objectives	TOMORROW what will probably be important to us in the next five years
1. Inflation hedging	mean ranks 2	3	3
2. Negative correlation with stock market returns	2	2	2
3. Superior returns compared to the stock market	3	3	3
4. Low risk compared to the stock market	3	3	3
5. Long duration of real estate	4	3	4
6. Other _____ _____ _____	3	2	3

REAL ESTATE INVESTMENT STAFF: PLEASE TELL US ABOUT YOUR IN-HOUSE STAFF. HOW MANY OF EACH OF THESE POSITIONS HAVE YOU HAD DURING THE THREE TIME PERIODS? IF YOU HAVE SEPARATE MORTGAGE AND EQUITY STAFF, PLEASE INDICATE HOW MANY OF EACH; i.e. 3M 4E.

TIME / STAFF	YESTERDAY when we first invested in real estate	TODAY our current staff	TOMORROW our anticipated staff requirements in the next five years
1. Portfolio Managers	total response 18	41	48
2. Asset Managers	10	30	40
3. Acquisitions staff	13	30	32
4. Generalists (do a combination of _____ _____	36	65	76
5. Attorneys	8	33	33
6. Appraisers	0	4	7
7. Auditors/Accountants	7	17	25

Generally, our staff has these qualifications: Undergraduate degree 26 [totals] graduate degree : MBA 18 MS 1 PhD. 0 J.D./LLB 5 professional certification CFA 3 SRPA/MAI 2

INVESTMENT OVERSIGHT: PLEASE TELL US ABOUT YOUR INVESTMENT MANAGEMENT PRACTICES

What is the approximate amount of investment in each of these categories?

	EQUITY	HYBRID DEBT	MORTGAGES
	millions		
Advisor-managed on a discretionary basis	10,628	1,453	434
Advisor-managed on a non-discretionary basis	13,404	1,884	1,046
Managed in-house with assistance from outside contractors	5,848	759	4,173
managed in-house solely by plan staff	5,305	224	22,819

Please tell us how often you use staff, consultants, and outside contractors to do the following tasks. Please rank them by 1=REGULARLY, 2=OCCASSIONALLY, 3=ALMOST NEVER, 4=NEVER

MEAN RESPONSES	ADVISOR/MANAGER STAFF		IN-HOUSE STAFF	PENSION CONSULTANT	OUTSIDE CONTRACTORS
TASKS	COMMINGLED FUND	SEPARATE ACCOUNT OR CO-INVESTMENT			
Approve leasing decisions	2	1	2	4	4
Approve capital expenditures	2	1	2	4	4
Approve marketing strategy	2	2	2	4	4
Approve disposition strategy	2	1	2	3	4
Approve property budgets or business plans	2	1	2	4	4
Approve property management firm	2	1	2	4	4
Make site inspections for acquisitions	2	1	2	3	4
Make site inspections for asset management	2	1	2	3	4
Meet with property managers	2	1	2	4	4
Meet with asset managers	1	1	2	3	4
Negotiate fees for asset management	2	2	2	3	4
Negotiate fees for property acquisition	2	2	2	3	4
Negotiate fees for property disposition	2	2	2	3	4
Recommend Managers	3	3	2	2	4
Evaluate manager performance	3	3	1	2	4
Evaluate specific property acquisitions	2	1	2	3	3
Represent the plan in negotiating acquisitions	2	2	2	3	4
Develop portfolio strategy	2	2	1	2	4
Review environmental studies	2	1	2	3	3

Do you control the appraisal of your properties? YES_22_ NO_18_. If so, do you actually hire the appraiser? YES_14_ NO__10.
Do you write Letters of Instruction for the appraisers? YES_15___ NO__24__
Do you believe that you will change any of these roles substantially in the future? If so, how? Please use another sheet if you wish.

In the past, did you require all your managers to act as ERISA fiduciaries? YES_27__ NO_12__
Do you require them to act as ERISA fiduciaries now? YES_30___ NO__10__
Do you expect to require managers to act as ERISA fiduciaries in the future? YES_28___ NO _11___
What is your opinion of the recent trend of managers investing their own funds jointly with clients?

INVESTMENT PERFORMANCE: PLEASE TELL US ABOUT YOUR PERFORMANCE GOALS AND MEASUREMENT.

please fill in any portfion of the matrix which applies to your investment targets.

MEAN RESPONSES	REAL ESTATE EQUITY	HYBRID DEBT	MORTGAGES
Our target return is _6_% real	6 %	6 %	6 %
A spread over the Russell/ NCREIF Index of _290__ basis pts. (SKEWED BY 1 RESPONSE)	108 b.p.	150 b.p.	75 b.p.
A spread over Treasuries of 260_ basis pts. Which Treasury rate?_____ __avg.= 10 year bond____	350 b.p.	333 b.p.	206 b.p.
IPC Index 1			
OTHER__16 MISC. RESPONSES _____			

FUTURE OUTLOOK: PLEASE TELL US YOUR OPINIONS AND YOUR FUTURE INVESTMENT PLANS.

Please compare your current asset management costs with your expectations for the same costs five years in the future.

based on:	Approximate current cost cost ? or	appraised value?	Expected Future cost on cost? or	appraised value?
	MEAN RESPONSES			
Asset Management	0.81%	0.64 %	0.61 %	0.68 %
Acquisitions Fees	0.90 %	0.83 %	0.72 %	0.35 %
Dispositions Fees	0.59 %	0.96 %	0.54 %	0.80 %

If you have levered investments, are fees based on equity? 3_ or total value?_9_(TOTAL RESPONSE)

Please tell us your investment plans for the next year. TOTAL RESPONSES

	Acquisitions	Dispositions
EQUITY	MILLIONS	
open–end funds	$ 30	$ 81
closed–end funds	$ 140	$ 45
separate account discretionary	$ 467	$ 35
separate account non–discretionary	$ 2,805	$ 330
co–investment	$ 365	$ 85
HYBRID DEBT		
closed–end funds	$ 0	$ 20
separate account discretionary	$ 400	$ 0
separate account non–discretionary	$ 140	$ 0
co–investment	$ 50	$ 0
MORTGAGES		
closed–end funds	$ 0	$ 0
separate account discretionary	$ 0	$ 0
separate account non–discretionary	$ 568	$ 70
co–investment	$ 50	$ 0
TOTALS	$ 5,015 MILLION	$ 666 MILLION

In the next five years, we expect our real estate investment to: (please choose the statement most like your expectations)
be reduced by *_____ % grow at a reduced rate compared to the past five years _14 TOTAL____
grow at the same rate as the past five years 10 TOTAL_ grow at a higher rate than the past five years 8 TOTAL__

* SKEWED BY 1 RESPONSE OF 100%. ONLY 3 EXPECT REDUCTIONS: 100%, 10%, AND 1%

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