JAMES A. GRAASKAMP COLLECTION OF TEACHING MATERIALS

IX. MISCELLANEOUS PROJECTS AND CORRESPONDENCE WITH INDUSTRY

B. Appraisal Research and Reform

2. Pension Real Estate Association (PREA) Research Committee

c. "A Study of the Appraisal Practices of Commingled Real Estate Equity Funds", by Robert A. Gibson, Under the Supervision of Professor James A. Graaskamp, University of Wisconsin-Madison Monograph No. 13 (1987)

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Graduate School of Business

A STUDY OF THE APPRAISAL PRACTICES OF COMMINGLED REAL ESTATE EQUITY FUNDS

BY

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by

Robert Alexander Gibson, Jr.

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ABSTRACT

A STUDY OF THE APPRAISAL PRACTICES OF COMMINGLED REAL ESTATE EQUITY FUNDS

Robert Alexander Gibson, Jr.

Under the supervision of Professor James A. Graaskamp

In 1974 Congress passed the Employee Retirement Income Security Act, a section of this legislation called for investment portfolios of pension funds to meet the test of full diversification. While stocks and bonds were the more traditional investment vehicles, income producing real estate assets became a natural investment allowing pension funds to diversify.

Unlike publicly traded stocks and bonds, no pricing system exists for the easy valuation of real estate assets. As a result, real estate assets held by pension funds must be appraised periodically to determine the value of pension fund assets.

This study was intended to determine if the state-of-the-art in appraisal of pension fund real estate assets leads to consistent valuations. Results indicate that there is little consistency in appraisals prepared for pension funds. The appraisals do not conform to accepted appraisal theory and are not in line with desires and goals set forth by real estate asset managers. Inconsistencies can distort share values in commingled real estate funds, distort pension fund assets in relation to the present value of future liabilities, and provide no accurate picture of both asset and asset manager performance. On the surface, the problem seemed to rest with the appraisal profession (a study of appraisals resulted in a relatively low average score). However, the research of procurement procedures indicates that at least some of the unevenness of appraisal performance is caused by failure of the consumer of appraisal services to communicate needs and expectations for the appraisal product. Regardless of the source of the problem, unless cured, continued investment in real estate by pension sponsors might be curtailed.

This study presents the findings from a questionnaire completed by asset managers on appraisal, the results of a study of appraisals performed for asset managers and recommends a proposed appraisal policy statement, a prototype set of protocols between the appraiser and other professionals, and a letter of engagement that is intended to provide the consumer of appraisal services a standardized means of communicating needs and expectations to the provider of appraisal services. Implementation of the appraisal policy statement, appraisal protocols, and letter of engagement should lead to more consistent valuations for asset managers and thus for their pension sponsors. Standardization, by eliminating bias and unevenness in the appraisal product, will contribute to trust and encourage continued investments in the real estate medium.

ACKNOWLEDGMENTS

A single title page is not enough to include all of those that contributed to this research study. Many of their names should be included with the authors. While the author takes full responsibility for any errors, he would like to acknowledge the valuable contributions made by others.

The research was conducted over a thirty month period, all under the direction of Professor James A. Graaskamp, the chairman of the dissertation committee. Without his guiding hand, support and long hours of editing, this report would be a mere shadow of what it is. He was also responsible for securing the funding that allowed this study to be conducted.

Primary research of this type is an expensive proposition, without the funding provided by the Homer Hoyt Institute and Consolidated Capital through the Pension Real Estate Association the study would not have been possible.

Much of the information requested from the asset managers can be considered proprietary, without the strong support of PREA's Research Committee under the direction of Alan Anderson, much of the data would have been unavailable. Those asset managers that took part in the study should also be thanked for the time and effort they made in gathering data and filling out a lengthy questionnaire.

Valuable editing, suggestions and critics were provided by the other two readers on the dissertation committee, Professors Dowell Myers and Michael Robbins. Also appreciated is the time spent by the other members of the committee, Professors Jack Huddleston and William Church.

Research assistants rarely get recognition and yet, without them, large research projects, like this, would be very difficult. A very special thanks is extended to Terry Esquivel for her work in Madison inputting all of the data and to Susan Kronz and Carol Lynn LaTorre who helped bring the study to completion at Old Dominion.

Gennie Mittnacht never missed a deadline while providing invaluable technical writing assistance, always under a time frame that required her to complete the work yesterday.

The process of earning an advanced degree can be a hard, arduous task without the support of family and friends. The author was fortunate to have had both in his corner. My wife Joanne provided support and encouragement for the entire process with a great deal of personal sacrifice.

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CHAPTER 1

INTRODUCTION

In 1974 Congress passed the Employee Retirement Income Security Act (ERISA), which covered a broad range of issues with regard to pension funds. A section of this legislation called for investment portfolios of pension funds to meet the test of "full diversification" [1] mandated by ERISA. While stocks and bonds were the more traditional investment vehicles of pension funds, income producing real estate assets became a natural investment allowing pension funds to diversify their portfolios [2]. Data are not presently available on the total real estate investment by pension funds; however, a June 1985 Pension World survey of firms that manage real estate portfolios for pension sponsors indicated total real estate assets of over $181 billion and $80 billion in pension fund assets for the responding 93 asset management firms [3].

Unlike publicly traded stocks and bonds, no pricing system exists for the easy valuation of real estate assets. As a result, real estate assets held by pension funds must be appraised periodically to determine the value of pension fund assets. This study was intended to determine if the state-of-the-art in appraisal of pension fund real estate assets leads to consistent valuations. If the valuations show inconsistencies, then documents could be developed that will help control the appraisal process for the pension industry.

The results of the study indicate that there is little consistency in appraisals prepared with respect to real estate interests owned by pension funds. The appraisals, in great measure, do not conform to accepted appraisal theory and are not in line with desires and goals set forth by real estate asset managers of pension funds.

Ownership Form

Pension fund investment in real estate has included direct investment in real estate or investment through a real estate asset management firm. Investment can be in the form of equity, joint venture, debt, participating or convertible debt, or some combination thereof. With direct investment, the pension fund manages the asset on its own.

Investment with a real estate asset management firm relieves the pension fund of the day-to-day responsibility of managing real estate and the firm can hold real estate assets for a pension sponsor in a segregated account or a pooled fund. In a segregated account the pension sponsor's capital is invested in real estate assets managed by the asset manager, with the pension sponsor being the sole beneficiary of each individual property interest in the portfolio of real estate assets.

In a pooled fund the pension sponsor's capital is combined with other funds' capital to purchase a portfolio of real estate assets. Pooled funds can be either a closed fund or an open end commingled real estate fund (CREF). Closed funds and CREFs both involve the purchase by the pension sponsor of a security in the form of a share in the fund; the asset manager then purchases and manages real estate assets with the capital raised. Closed funds typically identify the real estate assets to be owned, specify a holding period and disallow increasing or decreasing its investments by the pension sponsor over the holding period.

An open end CREF allows pension shareholders to make periodic investments or withdrawals (usually quarterly), based on a current share value, which in turn is dependent on the value of the real estate assets being held in the fund. Exhibit 1.1 summarizes some of the key attributes of the various real estate ownership vehicles currently in use by pension funds.

EXHIBIT 1.1
ATTRIBUTES OF PENSION FUND
REAL ESTATE OWNERSHIP VEHICLES

VEHICLE	MANAGEMENT	FUNDS COMMINGLED	ENTRY/ EXIT
Direct Investment	PF[a]	NO	BUY/SELL REAL ESTATE
Segregated Account	AM[b]	NO	BUY/SELL REAL ESTATE
Closed Funds	AM	YES	END OF TERM ONLY
Open Ended Funds	AM	YES	PERIODIC SALE/ PURCHASE OF INTEREST

a. Pension fund.
b. Asset manager.

Valuation of the Asset

Unlike publicly traded stocks and bonds, whose current market value can be ascertained from open market trading at almost any time, pension fund real estate assets in segregated accounts or in the form of shares in a pooled fund must be valued in terms of the resale value of the real estate asset at a given point in time to determine total pension fund assets and unit share values. Valuation is necessary to measure pension fund assets in relation to the present value of future obligations, to provide a measure of the asset manager's performance, and to set the exit and entry share values for CREFs'. The valuation process generally involves an annual appraisal (usually on the anniversary date of purchase) of each real estate asset by an independent fee appraiser and quarterly reviews by real estate asset managers' staffs.

With the growth of real estate investments in pension fund portfolios, a concern has evolved about the valuation process for real estate assets.

> The returns being reported to investors (pension funds) include estimates of capital appreciation which, by definition, involve the subjective input of the individual performing the asset valuations.... [T]he appreciation component of reported yields is not an absolute result but, rather, an estimate which incorporates subjective biases [4].

Since real estate appraisal is, at best, an estimate of what a property would sell for rather than its actual "value"--which can be determined only by putting the property on the market for sale--any mistake in fact, assumption, technique, or calculation could cause the "estimate" to vary substantially from the "value" and thus distort the pension fund's reported assets with respect to future obligations. Errors could also lower or raise the CREF's share price for those entering or leaving the fund and distort the apparent measure of asset manager's performance [5].

The Present Study

In late 1984 the Homer Hoyt Institute (HHI) funded an independent study of pension fund valuation procedures by the Real Estate and Urban Land Economics Department of the Graduate School of Business at the University of Wisconsin. The original research concept was initiated by Bill Wendt, Research Chairman of the National Council of Real Estate Fiduciaries (NCREIF) [6], as a basis for developing an engagement letter to standardize appraisal practice and strengthen credibility of a national real estate index. NCREIF membership became reluctant and then hostile to any analysis of actual appraisal reports and instead encouraged a comparison of property sales to appraisal values of sold properties in a study directed by Professor Mike Miles [7].

The broader study was then endorsed by the research Committee of the Pension Real Estate Association (PREA) [8], chaired by Allen Anderson, with Professor James A. Graaskamp as Chairman of the Appraisal Research Subcommittee. The ideas and language of Wendt, Anderson, and Graaskamp have been assimilated into the thought process of the researcher to a point where adequate credit for a turn-of-phrase in this dissertation is no longer possible. Consolidated Capital, through PREA, matched the HHI grant for the study.

A most desirable goal would have PREA and NCREIF synthesize their final conclusions into a single statement of appraisal objectives for those who manage pension fund real estate assets. No formal exchange of ideas or results has taken place. At this point the PREA Board of Directors has taken no action on the study.

The initial goal was to explore the need and possible effectiveness of a letter of engagement, that would provide a minimum standard of performance for appraisal services required for pension fund real estate assets. The appraisal was presumed to play a role in the acquisition decision, the disposition decision, and the intermittent adjustment of asset values during the period of ownership. After discussion with PREA Appraisal Research Committee members [9], a decision was made to focus on appraisal standards relative only to the valuation of assets during the ownership phase. It is interesting to note that those in acquisition or disposition of properties felt that an appraisal was not relevant to deal making.

The preliminary review of a cross-section of actual appraisals performed indicated that appraisal quality was a matter of both the professional methods of the appraiser and the procurement ability of the client.

General Professional Objectives for the Appraisal Process

Real estate property investments are unique, one-of-a-kind investments that lack the daily market quotations of fungible stocks and bonds in organized markets so that the investor depends on periodic independent appraisal to measure asset values, appreciation or depreciation of investment, comparative performance of alternative real estate investments, and, in some cases, comparative performance of the asset manager. Fiduciary accounting requires fund managers to bring assets "to market value" monthly, quarterly, or at least annually, while traditional appraisal methods have been fairly insensitive to short-term changes in value. The lack of precision previously found in the appraisal process was of less concern when applied to mortgage lending, eminent domain, or other issues when the appraisal was only one benchmark among many in the decision process and when the relevance of the appraisal was contingent on other factors such as foreclosure, negotiation, and other adjustments.

Accurate appraisals assume a greater importance to pension funds where investors are allowed to enter or withdraw from real estate investment pools based on the precisely appraised value of the real estate asset without mitigating adjustments, and the adequacy of pension benefit funding is measured annually in terms of the current value of assets relative to the present value of future benefits to be paid. These funding needs can have a significant impact on profit and loss performance and the working capital resources of the pension sponsor.

If investment capital is to be effectively diversified with optimal performance, investment efficiency requires continual feedback of data on income and appreciation of alternative investment media. The result is that pension funds exhibit a much lower tolerance for variance between the appraised value and the actual value. Variance can be introduced by misstating critical appraisal assignment specifications such as:

1. Definition of the issues for which the appraisal is sought as a benchmark,

2. Definition of the value or values to be determined,

3. Definition of the assets to be valued,

4. Definition of the acceptable appraisal methodologies,

5. Definition of the data procurement protocols required to

accomplish independence, replicability, and comparability of valuation [10].

Aside from the general interest of the ultimate pension beneficiary, four major groups have responsibility for a consensus on these critical specifications--namely, pension plan investment trustees, the asset manager responsible for a specific real estate item, professional societies responsible for the appraisal process, and professional societies responsible for the asset managers.

More accurate appraisals will result if the assignment is more carefully described and controlled through contract. Since much of the nonsystematic risk in real estate investment decisions and valuation is found in the quality of the data that are the basis for decisions and for the willingness to invest in good data, the specifications process is ultimately reduced to a contract for services between a knowledgeable client and a professional appraiser. A contract shall be termed, for this study, a Standard Letter of Engagement. Drafting of such a contract can only follow directions provided by three major sources of control--in many cases, formal control documents that can be incorporated by a reference in the Letter of Engagement:

1. A standard appraisal policy statement from pension plan trustees or the real estate asset manager regarding the issues for which the appraisal is required as a benchmark, the values to be determined by the independent appraiser or the in-house appraisal review committee, and certain rules that will be observed in the appraisal procurement process to improve reliability and comparability. Reliability is defined as being reasonably free of systematic bias, subjectivity, or self-serving, convenient assumptions that lack empirical or ethical validation.

2. A standard set of professional ethical standards defining the critical premises of the appraisal process and the expected levels of performance by the appraiser as reviewed and policed by appraisal peers [11].

3. A standard set of appraisal protocols that control the source and exchange of data and critical assumptions among the appraiser, the other professions such as accounting, law, and engineering, and the client in order to identify those sensitive areas of information exchange that might encroach on the independence of the appraisal function. Protocols are concerned with defining where professional ethics must be absolute relative to the appraisals use and occurrence of certain types of data, and where the appraiser can rely on the expertise of other professionals on a hold-harmless basis.

Appraisal assignment specifications must grow out of the centers of control listed above and eventually must be manifested in a Letter of Engagement format, providing both a set of minimum provisions and standards common to all pension real estate and a set of specific goals deemed useful by the asset management team and pension sponsor. Yet the letter of engagement must remain flexible enough to handle the wide range of different types of real estate assets, ownership vehicles, and property types currently in the portfolios of asset managers.

Organization of the Study

The focus of this study is on the procurement practices currently used by real estate asset managers in hiring outside fee appraisers and the appraisal quality that results. The research procedure for this report included a survey of pension fund sponsors and asset managers for examples of their written appraisal policies in use. Copies of letters of engagement supplied by asset managers, pension sponsors, and/or appraisal firms to reveal subject matter and protocols believed to be in need of contract definition were requested. A sample or cross-section of appraisal reports was asked for to give an indication of what appraisers thought was required of them. Finally, asset managers were asked to complete a formal questionnaire. Many additional interviews of influence centers to focus on current thinking among asset managers relative to valuation were conducted.

This introductory chapter is followed by a literature review focusing on the key issues in the appraisal of pension fund real estate assets. Key areas of concern are the appraisal problem as it affects pension funds, the appraisal accounting interface, recent works concerning the protocols between professionals in the appraisal process, changing standards of the appraisal of income-producing real estate, key recent works by the appraisal societies, and legislation that has impacted on appraisals and fiduciary responsibilities of those ordering appraisal services.

Chapter 3 presents the hypothesis and covers, in detail, the methodology used in the study. Due to the small sample size for the usable questionnaires received (44), the usable original appraisals received (39), and the update appraisals received (17) the control of bias is discussed at length.

To facilitate an understanding of the data, Chapter 4 provides aggregate summary statistics on the asset managers that took part in the study and aggregate summary statistics on the properties for which appraisals were received from asset managers as part of the study.

Chapter 5 is a report and analysis of data collected in a questionnaire filled out by real estate asset managers concerning both their procurement practices for outside fee appraisals and for in-house review appraisals.

Findings from the analysis of the appraisals in the study will be covered in Chapter 6. Findings include a rating of twelve different sections of each appraisal and a comparison of where the appraisal deviated from either appraisal policy or from what asset managers indicated in the questionnaire that they wanted from the outside fee appraiser.

Chapter 7 sets forth conclusions from the research, suggestions for future research in the area of valuation of pension fund real estate assets, and recommendations, including a proposed standardized appraisal policy, a proposed standardized set of appraisal protocols, and a proposed standardized letter of engagement for procuring appraisal services from an outside fee appraiser for pension fund real estate interests.

In addition to reducing the variance in appraisal results due to misunderstanding of the assignment, the Letter of Engagement, the protocols, and the policies from which they stem can push the appraisal profession toward superior performance and appropriate compensation. Much perceived risk in real estate is attributable to information risk in that better financial information and less skepticism about appraisal should reduce overall capitalization rates by a few basis points so that the extra money spent on proper appraisal work will be recovered eventually from value added to the real estate portfolios. In the long run, a greater consistency of purchased appraisal services will permit pension real estate asset managers to better manage their assets and to communicate to their clients the exact nature of the asset enhancement accomplished with their stewardship so that real estate will continue to enjoy a stream of investment dollars.

NOTES

1. Mike Miles and Tom McQue, "Commercial Real Estate Returns," AREUEA Journal, 12:3, (Fall 1984), 356.

2. For a thorough discussion of reasons for movement of pension funds to real estate see Blake Eagle, "Delayed But Moving Right Along," Pension World (July 1980).

3. The questionnaire was sent to 535 asset management firms; slightly over 18 percent responded. "1985 Real Estate Portfolio Manager Directory," Pension World (September 1985), pp. 61-79.

4. Vincent F. Martin, "How Reasonable Are Your Manager's Valuation Techniques?," Pension World (September 1980), p. 22.

5. Several efforts, such as the Frank Russel Index, have been made to develop a real estate index to measure real estate performance; since the index depends on the final sale assumption, the appraisal issue is wide spread and not limited to pension funds.

6. NCREIF is an association of real estate asset managers for pension funds.

7. Robert Cole, David Guilky, and Mike Miles, "Toward an Assessment of the Reliability of Commercial Appraisals," The Appraisal Journal (July 1986), pp. 428-431.

8. PREA, like NCREIF, is an association of real estate asset managers for pension sponsors and related firms. Its membership is much larger but NCREIF members make up the largest asset managers in terms of asset size. Many of the firms are members of both associations.

9. The PREA research committee reviewed the study methodology, data, and conclusions from its inception at their October 1984 meeting.

10. These five factors are the foundation of the contemporary appraisal process.

11. As an example see "Code of Professional Ethics and Standards of Professional Practice" (Chicago, IL: American Institute of Real Estate Appraisers, 1985).

CHAPTER 2

LITERATURE REVIEW

Introduction

As noted previously, since the passage of ERISA, pension fund investment dollars have shifted to real estate. One of the results of changing investment strategy has been a copious output of articles by both academic and industry constituents in trade and scholarly journals. This chapter will peruse the harvest of publications with respect to pension funds and appraisals.

Six specific themes are explored. The first reviews works that discuss pension funds' need for independent appraisal services to value real estate assets in order to set share values, potential problems that could arise if imprecise valuation techniques are used, and other attempts to standardize the procurement process. The second deals with the almost universally accepted valuation technique, discounted cash flow, and how the appraiser should approach accrual accounting records in arriving at an estimate of cash flow. The expanding role of protocols between the appraiser and professionals from a diversity of callings will be examined third. Changing standards of professional practice for appraisers with respect to the protocols are surveyed fourth. Fifth, the impact that legislative and administrative reform has had and is having on the appraisal profession will be reviewed. And finally, the international view of standardization of the appraisal process, specifically the European status, will be briefly explored.

Pension Funds and Appraisal

Because real estate assets have no daily public open market trading as do stocks and bonds, periodic valuation by an outside independent professional is necessary for pension funds to value assets. As Martin states, an appraisal is "an estimate which incorporates subjective bias" [1] and thus runs the risk of inaccurate estimates of real estate values and thus fund assets.

No argument has been made that periodic valuation of real estate assets, particularly for CREFs, is unnecessary. Miles, Martin, and others use the dissimilarity between the stock and bond markets and real estate markets in explaining the need for appraisals. Similarly, those authors--along with Graaskamp, Roulac and still others--stress the need for more reliable appraisals for the pension industry.

> Pension fund real estate investors need reliable real estate values to bring unit values of commingled funds and owned real estate to market value at least quarterly, to measure asset performance in terms of cash income and realizable appreciation, and to evaluate the relative performance of the asset manager. This creates an urgency for greater quality control in the procurement of appraisal services [2].

Essays covering the role of appraisals for pension funds usually discuss the reasons for the lack of quality in commercial appraisals and include:

1. A reluctance on the part of some appraisers to move beyond a strict application of traditional methodologies [3].

2. Subjective bias in estimating appreciation noted above by Martin.

3. Pension fund sponsors and asset managers...had little to say in terms of written policy controlling the procurement of appraisals [4].

4. Misspecification of what the appraiser is valuing or "know what you are valuing" [5].

A recent study by Cole, Guilkey, and Miles highlighted the problems of reliability for commercial appraisals for the pension industry. Actual sales of 147 properties owned on behalf of pension funds by asset managers were compared to the most recent appraisal prepared by an independent fee appraiser on the property. Results showed an absolute average difference of 9.5 percent between the sales price and appraised value with a range of +181 percent to -28 percent differences [6].

In perhaps the most critical article concerning appraisal and pension fund ownership, Rosenberg and Sack [7] discussed open-end real estate funds and their reliance on appraised values for setting entry and exit values for fund participants.

> First of all, open-end real estate funds are brought and sold on the basis of current appraised values, something we deem one gigantic potential bugaboo. It is curious to us that institutional trustees have few qualms about cash transactions based on appraised real estate values when experienced real estate practitioners would hardly consider such reliance. Although appraisals are necessary for bookkeeping and reporting purposes, ask an objective real estate expert whether he would purchase properties on the basis of appraisals and you will get a response similar to: "Are you Kidding?" [8]

While a few independent asset managers (13 of the 44 in this study) have developed engagement letters to retain appraisal services, until this study, only one other attempt has been made in the United States for an industry wide standardized letter of engagement. NCREIF, on two occasions, has attempted to produce an engagement letter for its membership. The first attempt resulted in guidelines but no letter of engagement. Because of membership pressure a second committee was formed and a letter of engagement resulted. The result was a letter dealing primarily with the business arrangements between the asset manager and the appraisal firm and not with the specifics of how the appraisal was to be prepared. The guidelines discuss some of the important issues, such as the use of discounted cash flow, but fall short of making recommendations as to which technique should be used.

No direct study has been made until now that ties appraisal theory, asset managers' needs/desires, and actual appraisals into a statement of what the state-of-the-art is for pension fund real estate assets and the appraisal process.

Appraisal/Accounting Interface

The appraisal/accounting interface issue involves the widely-accepted convention of using accrual accounting versus the need for the appraiser to use actual cash flow estimates to complete a discounted cash flow analysis. Presumably, the appraiser starts his estimate of net operating income with historical accounting records completed on an accrual basis. To adjust for non-cash entries, the appraiser must deduct from income any revenue recognized as an accrual, add to income any cash revenue not included in the profit and loss statement, and then, similarly, add to income any accrued expenses and deduct any cash expenses not recognized.

The issue became evident as the PREA research committee authorized a concurrent study to the present investigation regarding accounting standards for real estate asset managers. With that study still in progress, many relevant issues have been recognized by the accounting standards committee. Issues include methods with which accrual accounting handles rent concessions, leasing commissions, and tenant improvements, and the impact on cash flow [9]. I. Richard Johnson recognized these same issues in an unpublished dissertation [10] and in subsequent journal articles [11]. The Financial Accounting Standards Board (FASB) has also addressed these issues, particularly in their bulletin on accounting for leases [12].

Because this topic is so relevant to appraising income-producing real estate (whether owned by pension funds or not) and because a major portion of Chapter 6 is devoted to findings along these lines from the appraisals received, Exhibit 2.1 illustrate the problem (both Johnston and the PREA research committee give similar, but not as detailed, examples).

EXHIBIT 2.1
A DEMONSTRATION OF THE DIFFERENCE BETWEEN USING
ACCRUAL ACCOUNTING AND CASH FLOW ESTIMATES

Assumptions:

1. A new five year lease on 5,000 square feet at a rental rate of $18 per square foot.

2. A rent concession for the first two years of the lease.

3. Leasing commissions equal to 10 percent of rental contract payable upon occupancy.

4. Tenant improvements supplied by landlord of $10,000.

5. Discount rate of 15 percent.

Valuation at the time of lease inception:

Using accrual accounting:

Year	1	2	3	4	5
Income	54,000	54,000	54,000	54,000	54,000
less leasing comm.	5,400	5,400	5,400	5,400	5,400
less tenant impr.	2,000	2,000	2,000	2,000	2,000
Net income	46,600	46,600	46,600	46,600	46,600
Present Value Fct.	.8696	.7561	.6575	.5718	.4972
Present Valu	40,522	35,236	30,640	26,643	23,168

Total Present Value-- $156,209

Using cash flow:

Year	1	2	3	4	5
Income	0	0	90,000	90,000	90,000
less leasing comm.	27,000	0	0	0	0
less tenant impr.	10,000	0	0	0	0
Net income	(37,000)	0	90,000	90,000	90,000
Present Value Fct.	.8696	.7561	.6575	.5718	.4972
Present Value	(32,175)	0	59,175	51,462	44,748

Total Present Value-- $123,210

Valuation at the end of the second year of lease:

Using accrual accounting:

Year	3	4	5
Income	54,000	54,000	54,000
less leasing comm.	5,400	5,400	5,400
less tenant impr.	2,000	2,000	2,000
Net income	46,600	46,600	46,600
Present Value Fct.	.8696	.7561	.6575
Present Value	40,522	35,236	30,640

Total Present Value-- $106,398

Using cash flow:

Year	3	4	5
Income	90,000	90,000	90,000
less leasing comm.	0	0	0
less tenant impr.	0	0	0
Net income	90,000	90,000	90,000
Present Value Fct.	.8696	.7561	.6575
Present Value	78,264	68,049	59,175

Total Present Value-- $205,488

Accrual accounting smooths the income and expenses over a period of time, in this case, the lease term. This smoothing process distorts the actual cash flow for the lease (on an expanded basis for the property). An appraiser valuing the lease from inception should recognize the timing of cash receipts and disbursements and thus arrive at a lower present value ($123,210) than with accrual accounting ($156,209--a difference of 27 percent). At the end of two years, accrual accounting (through smoothing) would recognize the same annual income and thus a lower present value ($106,398) for the remainder of the term of the lease. Cash flow would recognize that expenditures for leasing commissions and tenant improvements had already been made and that the entire actual lease payments were still to be made and would result in a present value of $205,488, almost double the accrual accounting estimate. The large difference emphasizes the diversity in goals of the two professionals. The accountant attempts to match revenues and expenditures over a lease period while the appraiser tries to simulate how a prospective purchaser would value existing encumbrances.

An excellent demonstration of the difference between accrual accounting and cash flow and a generic model to reconcile between the two is presented by Kroll. He makes the case for necessary working capital to carry an operation through periods when accrual income might be positive while cash flow is negative, as was the case in Exhibit 2.1. His simple model can serve as an excellent starting point for the appraiser when converting an historical accrual accounting profit and loss statement to an estimate of future cash flow (see Exhibit 2.2).

EXHIBIT 2.2
A MODEL FOR CONVERTING FROM
ACCRUAL ACCOUNTING TO CASH FLOW

$$CF = PAT + NC - C - I$$

where, PAT = Profits after taxes
NC = Non-cash expenses minus non-cash revenues (already recognized for accrual accounting purposes),
C = Cash expenditures minus cash receipts as yet unrecognized for accrual accounting purposes,
and I = The investment minus sales of fixed assets (although I is shown separately here, note that it could be treated as part of C) [13].

Appraisal Protocols

Graaskamp, in his essay on feasibility in 1972, states that the "(f)easibility analysis must become a process of collaboration among the professions" [14]. Accepting Graaskamp's statement that an appraisal is a narrowly-defined feasibility report, then it too must be a collaboration among professionals. The alternative would be to allow the appraiser to avoid such vital issues as structural integrity and asbestos pollution, to name just a few, through a statement of limiting conditions. In addition, because of the data explosion brought on by electronic data processing, appraisers are being asked at an increasing rate to accept data prepared by others [15].

> Some recent prospectuses have contained appraisal value conclusions wherein leases were read by one professional group of investment bankers who forecast revenue, while an accounting firm studied expenses and forecast outlay - with or without engineering assistance - requiring the appraiser to place a value on a net income figure estimated by others [16].

To the extent that the appraiser is not allowed to assume away the validity of data collected by others, and professional societies argue they cannot, protocols governing the relationship between the appraiser and other professionals are essential. Protocols are needed between the appraiser and accountant, engineers, building management [17], as well as lawyers and any other professional supplying data to the appraiser.

In discussing the role of the appraiser in the future, Dorchester recognized the need for reliable data: "Ultimately, the question of databasing and information processing boils down to a single issue: To what extent is an appraisal a `judgment' by the appraiser and to what extent is it an objectively researched conclusion?" [18]. While his essay concerned internally-generated databases by appraisers, it is only a short step to Graaskamp's view that at least some of the relevant data will come from other professionals and thus the need for protocols.

Miles, in discussing appraisals for institutional clients, specifically discusses the use of outside professionals by the appraiser and warns of the danger of eschewing data supplied by others.

> The proper opinion of value may require an appraiser to seek outside help. No one knows everything and the appraiser should not hesitate to use architects to evaluate design, engineers to evaluate construction programs, land planners to deal with peripheral land issues, and lawyers to deal with possible legal problems. The appraiser does not assume away the problem or delegate it; he or she uses the other professional and remains personally responsible for the opinion of value as it will be used. This is possibly a higher role than many appraisers are taking with their institutional clients; however, a lessor role will lead eventually to the certified public accountant doing the appraisal and the independent fee appraiser will be bypassed altogether [19].

Miles, while recognizing the need for collaboration between the appraiser and other professionals, falls short of calling for protocols between professionals. Protocols would seem to be even more important if, as Miles states, the appraiser should remain `personally responsible' while using data from other professions. He does however call for a letter of engagement for the appraiser, similar to that of the CPA, to make the appraiser more independent [20].

Changing Standards of Appraisal

The need for protocols between professionals is best defined by professional societies that govern the appraisal process. Current standards of professional conduct implicitly indicate that the appraiser is responsible for all data used in an appraisal, whether gathered by the appraiser or supplied by others.

> In the performance of an appraisal assignment, Members and Candidates must assume responsibility for the contents of the entire appraisal report unless the report clearly indicates otherwise [21].
>
> In performing appraisal services an appraiser must be certain that the gathering of factual information is conducted in a manner that is sufficiently diligent to ensure that no data that would have a material or significant effect on the resulting appraisal analyses, opinions, or conclusions are omitted from consideration. Further, an appraiser must use sufficient care in analyzing such data to avoid errors that would significantly affect his or her appraisal analyses, opinions, and conclusions [22].
>
> Since the background and experience of appraisers varies widely and a lack of knowledge or experience can lead to inaccurate or inappropriate appraisals...This may be accomplished (by) retention of third parties such as engineers, architects, lawyers, or accountants who posses the required knowledge or experience [23].

While these excerpts indicate an implicit requirement that the appraiser solicit outside assistance when necessary and that the appraiser is then responsible for the data used, an explicit statement of responsibility would greatly aid the appraiser. Graaskamp calls for just such an explicit policy statement.

> The appraisal societies and asset managers must define the following:
>
> 1. Responsibility of the appraiser to flag legal, engineering, traffic, or structural issues requiring professional review;
>
> 2. Legitimacy of the appraiser's accepting audits of leases, operating budgets, and revenue collections provided by other professionals;
>
> 3. Legitimacy of the appraiser's accepting data on such electronic media as floppy disks for use in cash flow or data management models provided by the asset manager client, the accountant for the client, independent purveyors of software and operating data, and investment broker/marketing;
>
> 4. Legitimacy of the appraiser's accepting a property management program implemented by the asset manager as a point of departure for future revenues, expenses, and project characteristics of extrapolating the status quo [24].

Miles (quoted earlier) implicitly called for the same definitions in the form of a warning to appraisers that the CPA instead of the appraiser would end up performing valuations.

Legislative and Administrative Impact on Appraisal

Control of the appraisal profession and the appraisal process by the federal government first took the form of "internal memorandum of the Federal Home Loan Bank Board (FHLBB) Office of Examinations and Supervision concerning appraisal policies and practices of insured savings and loan institutions and their service corporations" [25]. The initial redraft of the none informative R-41a was the shocking detail of R-41b issued in March 1982. The purpose of R-41b was to establish objectivity and economic substance in appraisals for mortgage loans on real estate made by institutions insured by the Federal Savings and Loan Insurance Corporation.

Lennhoff, in his conclusion concerning R-41b, emphasized that "to avoid problems with the guidelines is simply good, fundamental appraisal technique that applies equally to work done for clients other than savings and loan associations" [26]. For a more detailed discussion of guidelines and how the appraiser should interpret them, see Kinnard and Swango [27].

In September 1986 R-41b was rescinded by FHLBB and replaced by another internal memorandum, R-41c. As its synopsis indicates, changes concern greater detail and a new definition of market value.

> This memorandum revises and replaces R-41b. It does not represent any shift in board policy but it does encompass significantly greater detail, specifically with regard to `appraisal management,' adding guidelines which are appropriate to ensure acceptable appraisal procedures in the current market. The guidelines listed are generally standards of practice utilized by the leading national professional appraisal organizations. The memorandum also contains the new definition of market value, as recently adopted by both the Federal National Mortgage Corporation (Freddie Mac) and the Federal National Mortgage Association (Fannie Mae) [28].

A report that could have even more impact on the appraisal profession was released by the Committee on Government Operations in September 1986 [29]. Selected findings in the report are most damaging to the appraisal profession and include:

1. Hundreds of savings and loans chartered by the FHLBB or insured by the FSLIC have been severely weakened or declared insolvent because faulty and fraudulent real estate appraisals provided documentation for loans larger than justified by the collateral's real value.

2. Estimates suggest that from 10 percent to as much as 40 percent of the VA's $420 million loan guaranty program loss for (fiscal year) 1985 was caused by inaccurate or dishonest appraisals and internal appraisal-related administrative deficiencies.

3. In (fiscal year) 1985, the FHA's mortgage insurance program lost more than $200 million, attributable to a number of factors, including faulty and fraudulent appraisals.

4. At least 10-15 percent of the $1.3 billion in losses experienced by private mortgage insurers in 1984 and 1985 can be attributed to faulty and fraudulent appraisals...

5. Highly inflated and fraudulent appraisals played an essential part in an intricate scheme that resulted in losses of some $95 million to the Bank of America.

6. Appraiser ineptitude, negligence, and misconduct are widespread. Of greatest concern is `client advocacy appraising,' where-in large numbers of appraisers willingly agree, or otherwise succumb, to pressure brought to bear by lenders, borrowers, and others involved in the loan origination and underwriting process.

7. The real estate appraisal industry is fragmented and its members are not generally subject to effective discipline.

8. Only 12 states have appraiser-related licensing or certification procedures [30].

As a result of these findings, the Committee has made recommendations that would greatly affect the appraisal industry:

1. Congress should provide the bank regulatory agencies with express authority to directly discipline appraisers who have willfully or through gross negligence misrepresented the value of real property serving as collateral for a loan made by a federally insured financial institution. Such discipline should include temporary suspensions or prohibitions from submitting future appraisals to any federally insured financial institution and/or civil penalties.

2. A coordinated, concerted effort should be undertaken to establish a national, industry self-regulated appraiser certification and review system, to which all real estate appraisers would be subject.

3. All federal agencies concerned with real estate finance or mortgage insurance/ investment should collect comprehensive data on appraisals and appraiser performance.... These efforts should concentrate on preventing problem appraisers from being able to continue to work for institutions insured or regulated by these government entities, once a pattern of unacceptable performance has been identified [31].

While the findings have generated no legislation yet, they are quite damaging to the appraisal profession. If government agencies insuring or regulating institutions are this concerned, how long will it be before ERISA, behind the fiduciary responsibility provisions of the Act, attempt to control appraisals being prepared for pension funds or asset managers who act on the behalf of pension funds?

The International View

In Europe the International Assets Valuation Standards Committee of London have been concerned with appraisal standards, policies, and procedures for the Common Market. This committee has worked in concert with the Royal Institute of Chartered Surveyors (RICS), also of London to produce a series of Guidance Notes on the valuation of fixed assets for various purposes. One Guidance Note, GN 26, concerning valuation of pension fund property. Their definitions of categories of properties for pension funds were suggestive of the definitions put forward in this study and include:

1. Properties held as investment are those on which construction work has been completed and which are owned for the purpose of letting to produce a rental income which is negotiated at arm's length with third parties.

2. Properties in the course of development include properties which have been acquired with vacant possession with intention of seeking an early arm's length letting to a third party with or without works of repair or improvement being required. Apart from properties where work is in actual progress there should be included in this category any property where a start is eminent because all appropriate consents have been obtained and a building contract has been exchanged.

3. Properties held for development are those acquired with the intention to redevelop at some future date, with or without further properties not yet acquired, and which also do not fall within the other three categories.

4. Properties in owner occupation include any property which is subject to any form of intercompany leasing or licensing arrangement between the Fund and a subsidiary. Such arrangements should, therefore, be ignored. Properties which are partly occupied by the owner should only be included in this category if the occupation is substantial, say one-third [32].

For purposes of this study these European categories were restated as follows:

1. Investment grade properties (operational and 80 percent occupied),

2. Development properties (vacant, in transition, or less than 80 percent leased and occupied),

3. Financial participation contracts (custom-crafted, hybrid equity contracts unlikely to meet presumptions of fair market value).

The existence of the very detailed Guidance Notes make it unnecessary to provide very detailed letters of engagement since the appraisal assignment need only reference the appropriate Guidance Note. In the long run the definitions, methods, and protocols described in the European Guidance Notes should provide a model for parallel professional standards in the United States.

Conclusion

The literature has emphasized the need for appraisals for real estate owned by pension funds and has chronicled the dangers of using estimates of values. While there have been attempts to develop some standardization for the procurement of appraisal services, no study has been conducted to date concerning the state-of-the-art of appraisal for pension funds and then, as a result, develop a complete appraisal policy statement, set of protocols governing the relationship between the professions and a standardized letter of engagement.

NOTES

1 Martin, p. 22.

2 James A. Graaskamp, "Appraisal Reform and Commercial Real Estate Investment for Pension Funds" (New York: Salamon Brothers Incorporated, January 1987), p. 1.

3 Mike Miles, "Commercial Appraisal for Institutional Clients," The Appraisal Journal (October 1984), p. 552.

4. Graaskamp, p. 3.

5. Miles, p. 553.

6. Rebel Cole, David Guilky, and Mike Miles, "Toward an Assessment of the Reliability of Commercial Appraisals," The Appraisal Journal (July 1986), pp. 428-431.

7. It should be noted that both Rosenberg and Sack are professionally affiliated with firms active in closed real estate fund, Rosenberg with Rosenberg Real Estate Equity Fund and Sack with RREEF.

8. Claude N. Rosenberg, Jr. and Paul Sack, "The High Risks of Open-end Real Estate Funds," The Journal of Portfolio Management (Fall 1975), p. 55.

9. "Outline for Issues Paper on Selected Accounting Practices," Accounting Standards Research Subcommittee, Pension Real Estate Association, presented at PREA meeting, May 1986.

10. I. Richard Johnson, "A Study of the Appraisal/Accounting Reporting Interface in the Commingled Real Estate Industry" (Unpublished Doctoral Dissertation, University of Wisconsin-Madison, 1984).

11. I. Richard Johnson, "Accounting Can Affect Real Estate Fund Values," Pension World (May 1985), pp. 40-44.

12. Financial Accounting Standards Board, "Accounting for Leases," Statement of Financial Accounting Standards Number 13 (Stamford, Connecticut, 1976).

13. Yorman Kroll, "On the Difference Between Accrual Accounting Figures and Cash Flow: The Case of Working Capital," Journal of the Financial Management Association (Spring 1985), pp. 75-82.

14. James A. Graaskamp, "A Rational Approach to Feasibility Analysis," The Appraisal Journal (October 1972), p. 58.

15. Graaskamp, 1987, p. 4.

16. Ibid., p. 4.

17. Ibid., p. 5.

18. John D. Dorchester Jr., "The Next Era in Appraisal: Opportunity vs. Obsolescence," The Appraisal Journal (January 1985), pp. 21.

19. Miles, p. 560.

20. Ibid., p. 562.

21. "Code of Professional Ethics and Standards of Professional Practice," American Institute of Real Estate Appraisers (Chicago, IL, 1985), p. 28.

22. Ibid., p. 48.

23. Ibid., p. 52.

24. Graaskamp, 1987, p. 6.

25. David C. Lennhoff, "Why All the Ruckus over R 41b?," The Appraisal Journal (July 1984), p. 443.

26. Ibid., p. 447.

27. William N. Kinnard Jr. and Dan L. Swango, "Memorandum R-41b and Its Impact on Real Estate Development" (The University of Connecticut, Storrs: Center for Real Estate and Urban Economic Studies, October 1985).

28. Federal Home Loan Bank Board, Offices of Examinations and Supervision, Memorandum R-41c, "Appraisal Policies and Practices of Insured Institutions and Service Corporations" (Washington, DC, September 1986), p. 3.

29. Committee on Government Operations, "Impact of Appraisal Problems on Real Estate Lending, Mortgage Insurance, and Investment in the Secondary Market," 99th Congress, 2d Session, House Report 99-891 (Washington, DC), September 1986.

30. Ibid., pp. 4-8.

31. Ibid., pp. 11-15.

32. The Royal Institute of Chartered Surveyors, RICS Guidance Notes on the Valuation of Assets, 2nd Edition, Guidance Note No. GN 26, "The Valuation of Pension Fund Property Assets" (London, England, n. d.), p. 296.

CHAPTER 3

HYPOTHESIS AND METHODOLOGY

Hypothesis

The question addressed by this study is whether the current practices in procuring appraisal services by real estate asset managers, and the resulting reports provided by the independent fee appraisers, lead to uniform accurate valuations of real estate assets owned by pension funds. Accurate valuations are necessary for measuring pension fund assets against future liabilities, to set entry and exit values for CREFs and measure both asset and asset manager's performance. If these appraisal procurement practices lead to inconsistent valuations, a potential arises for a distortion of reported pension fund assets, inaccurate specification of exit and entry share values for CREFs, and imprecise measures of asset and asset manager's performance.

In the event that the hypothesis proves out and there is no uniformity in the valuation of pension fund real estate assets, the researcher proposes to develop:

1. A standard appraisal policy statement that communicates from the executive board of the asset management firm to the pension sponsor, the management staff who procure appraisal services, and the independent fee appraiser certain rules to be observed in the appraisal process,

2. A standard set of appraisal protocols defining the relationship between the appraiser, the client, and other professionals, and,

3. A standard letter of engagement with a set of minimum provisions for preparing the appraisal.

The Research Design

To ascertain whether appraisal practices for pension funds are uniform in their valuations required a sample of appraisals actually performed for asset managers. The sample then could be systematically checked for accuracy, consistency with accepted appraisal theory, consistency with the desires of the client (the asset managers), and graded for comparison.

As the first step in evaluating the current practice in the appraisal of pension fund real estate assets, the research team [1] first sent a letter to pension fund real estate asset managers requesting that they provide:

1. Any written policy on appraisal procedure specified by pension sponsors or generated by the asset managers used

    a. in the direction and control of outside appraisal professionals engaged to appraise properties in the portfolio(s) managed by PREA members, or

b. when performing in-house appraisal for quarterly or other periodic asset valuation to set unit values.

2. Current drafts of any letters of engagement required by PREA members for outside appraisal services, supplied by appraisal firms prior to supplying appraisal services to the PREA member, and/or provided by pension sponsors as a requirement for securing an asset management contract.

3. Any real estate accounting classification manual used for real estate assets.

4. The most recent annual report on each of the funds for pension investors.

5. Any spreadsheet that the firm requires and provides to outside appraisers for analysis of individual leases.

6. Two sample outside appraisals received for each of two separate owned properties, preferably dated between January 1982 and December 1984, and the in-house review appraisals completed in the interim. (Appraisal materials will be kept confidential and immediately returned after data on appraisal methods is extracted.)

7. A list of firms presently approved by the PREA member for the appraisal of owned real estate assets to clearly define the number of firms engaged in pension fund real estate appraisal. (The list will remain confidential and only a count of firms and individual appraisers will be kept.)

8. Answers to the enclosed questionnaire [2].

While the study was partially funded by PREA, to avoid potential bias, correspondence was sent to both PREA members and non-PREA member asset managers [3]. In addition, appraisal firms responsible for appraisals received were interviewed by telephone.

The Resulting Data

Collected data resulted in four data bases:

1. Policies and/or practices of the pension sponsor and asset managers relative to obtaining appraisals--a result of the compilation of the data from the questionnaire filled out by asset managers about current practices of hiring an outside appraiser and performing in-house reviews, written policy statements received, and letters of engagement currently in use that were received;

2. Results from a systematic review of the original appraisals received from asset managers;

3. Results from a systematic review of the update appraisals [4] received from asset managers;

4. Results from a telephone survey of appraisal firms that prepared the appraisals under study.

The data bases allowed for the research team to: tabulate the desires of the asset managers with respect to appraisals and compare those desires to the actual original and update appraisals received; compare the appraisals to accepted appraisal theory [5]; check the appraisals for mistakes in calculations; and, finally, grade each appraisal by scoring individual sections of each report received. Each of the appraisals was scored on a point basis for 12 separate sections of the report. They included:

1. Market analysis section,
2. Land valuation,
3. Market approach to value,
4. Determination of market rents,
5. Estimation of gross income,
6. Estimation of vacancy losses,
7. Estimation of operating expenses,
8. Estimation of alterations, replacements and additions to the capital account,
9. Derivation of the discount rate used in present value calculations,
10. Estimation of the resale price at the end of the projection period,
11. Income approach to value, and
12. Overall opinion of the appraisal.

The scoring was based on 5=excellent, 4=good, 3=average, 2=fair, 1=poor, and 0=the appraisal omitted that section (see Chapter 6 for details of grading the appraisals).

The Sample

A total of 255 companies were initially identified as potential respondents. Of these, 19 mailings were returned with no listing for the firm, 70 responded that their firms did work with pension funds but outside the area of asset management of real estate, and two firms worked together in the management of real estate assets. Of the remaining 165 firms, responses were received from 46 firms, or almost 28 percent. Of the 46 responses, two were discarded because of the high percentage of unanswered questions.

A total of 71 appraisals were received from asset management firms and were divided into two data groups--43 original appraisals and 28 update appraisals. Of these, four of the original appraisals were discarded; two because they represented property being appraised for sale [6], and two because they were short-form appraisals of convertible mortgages [7]. Two properties have two originals in the data set, each done by a different appraisal firm, and each is treated as an original appraisal.

Of the 28 update appraisals, six were excluded from the data set because the original appraisals were not received and thus references to the original could not be verified for accuracy and completeness. The remaining 22 update appraisals were performed on 17 different properties, with three properties having two updates and one having three. Because of the lack of multiple update appraisals on the same property and to maintain data consistency, only the seventeen update appraisals performed closest chronologically to the original were used.

The research team would have preferred ideally more questionnaires, original appraisals, and updates in the data sets. The response rate was low for three reasons: the length of the questionnaire (14 pages); the proprietary nature of the requested data, including appraisals; and that research on appraisals is a sensitive issue. Sensitivity of the issue was probably the most important factor in suppressing the supply of appraisal reports. Most NCREIF members refused to participate in terms of furnishing appraisals and strongly urged PREA to abandon analysis of appraisals. However, while NCREIF represents only asset managers, the PREA membership includes many pension sponsors and the sponsors were curious about appraisal validity. Some members of PREA and NCREIF believe that the research should not have been conducted by an independent university (with a history of critical appraisal review) because any negative conclusions might reduce the flow of capital to real estate commingled funds. An alternative opinion held by the research team is that a standardization of the appraisal process that would provide more reliable measures of value which would dispel skepticism as to open end fund performance and would help the flow of funds to the asset managers. Nevertheless, with the dispersion of managers by asset size (see Chapter 4), and the property type and geographical location of appraised properties, the research team saw the sample received as representative of the state-of-the-art in the appraisal of pension fund real estate assets.

Controlling Bias

Bias has certainly every opportunity to enter the various data sets since controlling which asset managers responded to the questionnaire is precluded in the methodology. Of the 44 usable responses, 30 were from PREA members, 14 from non-PREA members, and one was received from a NCREIF member who also belongs to PREA. Of those firms answering the asset size questions, the average firm had $366 million in real estate assets under management, less than the average of $838 million in the Pension World study, This variance can be attributed to NCREIF member's refusal to cooperate in the study (only 2 of 26 filled out the questionnaire, while all filled out the Pension World survey) who are the largest asset managers in terms of asset size.

That an asset manager would deliberately send a poor appraisal to be studied is difficult to imagine; in fact, the research team assumed a degree of `adverse selection' that asset managers would send their best.

But a systematic rating of the appraisals (see Chapter 6) indicated that a broad range (from very good to poor) were received. To maintain consistency in the review of appraisals, one researcher conducted the review for all of the original and update appraisals, always using the appropriate checklist. Once collected, the data were entered on floppy disk and verified by different research assistants.

Telephone interview of the appraisal firms were conducted by a single research assistant using a set form and asked only nonproprietary questions, such as number of offices and number of analysts employed in each office.

Annual reports received were used to confirm and in some cases fill in missing data items. Too few accounting classification manuals (1), spread sheets used for lease analysis (2) and approved appraisal firms (1) were gathered to draw any conclusions.

The following chapter provides aggregate summary statistics on asset managers who completed the questionnaire, and on properties for which original and update appraisals were received. The chapter is meant to set the stage for detailed reporting and analysis of the four data bases used in the study.

NOTES

1. The research team consisted of Professor James A. Graaskamp, Chairman of PREA's subcommittee on appraisal, the author, Robert A. Gibson, and Terry Esquivel a graduate assistants from the Real Estate Department of the University of Wisconsin-Madison.

2. Extract from letter sent to real estate asset managers.

3. Additional asset managers were identified from the NCREIF membership list and from Pension World's Asset Managers Directory.

4. "Original appraisals" refers to the first appraisal prepared on a specified property by that appraisal firm. "Update appraisal" refers to a subsequent appraisal prepared by the same firm on the same property.

5. The text of the American Institute of Real Estate Appraisers, The Appraisal of Real Estate, Volume 8, AIREA: Chicago, 1983, was used as the basis for judging the appraisals consistency with accepted appraisal theory.

6. One was a condominium conversion, the other an industrial lot sale appraisal.

7. Dr. William B. Brueggeman of Southern Methodist University is currently conducting a parallel study funded by PREA on the valuation of convertible mortgages.

CHAPTER 4

SUMMARY DATA ON ASSET MANAGERS, PROPERTIES APPRAISED AND APPRAISAL FIRMS

Introduction

To facilitate an in-depth discussion of the data collected in the study, summary data will be presented on the asset managers that completed the questionnaire, on properties for which original appraisals were received, on the properties for which update appraisals were received, and on the telephone survey of the firms that performed the appraisals. The intent is to give background statistics to support the discussion of the data sets in Chapters 5 and 6.

Summary Data on Asset Managers

Forty-four asset managers completed the questionnaire. Exhibits 4.1 through 4.5 summarize the make-up of the surveyed companies and their individual funds. Without adjusting for zero entries for any respondent, responding firms manage 169 funds with an asset value of over $18 billion and have annual management fees of over $90 million. Of the 169 funds, 69 (or just over 40 percent) were closed funds; 41 (or almost 25 percent) were segregated accounts; 20 (just short of 12 percent) were CREFs; and 18 (10.5 percent) represented joint venture funds. The other 21 funds (just over 30 percent) were either a form of debt fund or other hybrid fund type.

EXHIBIT 4.1
DATA SUMMARY FOR QUESTIONNAIRE OF APPRAISAL POLICIES
TYPE FUND MANAGED, ASSET SIZE, AND FEES

	NO. FUNDS	ASSETS $ MM	FEES $ M
Open end commingled funds	20	7,129	46,862
Closed funds	69	5,632	31,443
Segregated accounts	41	4,888	8,682
Mortgage funds	5	0	496
Joint venture funds	18	31	1,385
Participating or conventional mortgage funds	8	248	1,541
Other	8	693	0
TOTAL	169	18,621	90,409

Source: Questionnaire sent to asset managers, supplemented by data from annual reports of asset management firms and Pension World Survey.

Adjusting data for zero entries (no answer to either the number of funds, asset size, or management fees) dropped the number of funds to 81 (Exhibit 4.2) with assets of $13.6 billion and management fees of $86.5 million, just over .6 percent of asset. While twice as many closed funds responded, their average asset size is less than a third of the CREFs. Segregated account funds were also more numerous than CREFs, but their average asset size was one-fifth that of the CREFs. Management fees were almost identical between the closed fund and CREFs, .69 percent of assets for CREFs and .66 percent of assets for closed funds. Segregated accounts had a significantly lower management fee average of .42 percent of assets.

EXHIBIT 4.2
DATA SUMMARY FOR QUESTIONNAIRE OF APPRAISAL POLICIES
TYPE FUND MANAGED, ASSET SIZE AND FEES
EXCLUDING ZERO ENTRIES IN EITHER ASSETS OR MANAGEMENT FEES

	NO. CO'S.	NO. FUNDS	ASSETS $ MM	FEES $ M
Open end commingled	14	17	6,756	46,862
Closed funds	13	35	4,471	29,727
Segregated accounts	7	25	2,053	8,682
Mortgage funds	0	0	0	0
Joint venture funds	1	1	31	165
Partipating or conventional mortgage funds	2	3	240	1045
Other	0	0	0	0
TOTAL	37	81	13,551	86,481

	AV ASSETS $ MM	AV FEES $ M	FEES/ ASSETS
Open end commingled	397	2,757	0.69 %
Closed funds	128	849	0.66 %
Segregated accounts	82	347	0.42 %
Mortgage funds	0	0	0
Joint venture funds	31	165	0.53 %
Participating or conventional mortgage funds	80	348	0.44 %
Other	0	0	0
TOTAL	167	1,068	0.64 %

Source: Questionnaire sent to asset managers, supplemented by data from annual reports of asset management firms and <u>Pension World</u> Survey.

Just over one-half of the responding firms, 19 of 37, have total assets under $100 million; however, five have assets in excess of $1 billion (Exhibit 4.3). Fifteen of the 38 responding firms manage one fund and 29 firms manage fewer than five; however, four firms manage at least ten separate funds (Exhibit 4.4). The number of properties under management also varied greatly, with 22 firms managing 14 or fewer properties while six manage in excess of 50 (Exhibit 4.4).

EXHIBIT 4.3
DATA SUMMARY FOR QUESTIONNAIRE OF APPRAISAL POLICIES
SUMMARY OF ASSET SIZE OF RESPONDENTS

MILLIONS OF $	No. FIRMS
ZERO	7
>0 <100	19
100 <200	4
200 <300	1
300 <400	0
400 <500	2
500 <600	3
600 <700	2
700 <800	1
800 <900	0
900 <1000	0
>1000	5

Source: Questionnaire sent to asset managers, supplemented by data from annual reports of asset management firms and <u>Pension World</u> Survey.

EXHIBIT 4.4
DATA SUMMARY FOR QUESTIONNAIRE OF APPRAISAL POLICIES
SUMMARY OF PROPERTIES MANAGED

No. OF FUNDS	No. FIRMS	No. OF PROP.	No. FIRMS
0	6	0	5
1	15	0- 4	6
2	4	5- 9	8
3	6	10-14	8
4	4	15-19	2
5	1	20-24	4
6	1	25-29	2
7	2	30-34	2
8	1	35-39	0
9	0	40-44	1
10	2	45-49	0
>10	2	>50	6

Source: Questionnaire sent to asset managers, supplemented by data from annual reports of asset management firms and <u>Pension World</u> Survey.

Office buildings were owned by more firms than any other property type (Exhibit 4.5), and comprised the largest share of the properties managed (379 of the 1,278 properties, 30 percent), followed by industrial buildings, warehouses, and shopping centers. Other property types--apartments, hotels and motels, mixed-use structures, acreage and miscellaneous property types - accounted for 198 of the 1,278 properties, or 15.5 percent.

EXHIBIT 4.5
DATA SUMMARY FOR QUESTIONNAIRE OF APPRAISAL POLICIES
TYPE PROPERTIES OWNED

	CO'S	# PROP	AVE
Apartments owned	5	76	15
Office buildings owned	37	379	10
Shopping centers owned	27	167	6
Industrial buildings owned	21	301	14
Warehouse buildings owned	19	233	12
Hotels/motels	8	29	4
Mixed use structures	6	7	1
Agricultural land owned	2	10	5
Speculative acreage owned	3	15	5
Other	14	61	4
TOTAL		1,278	

Source: Questionnaire sent to asset managers, supplemented by data from annual reports of asset management firms and Pension World Survey.

Exhibit 4.6 details the number of appraisals required, 1076, and their costs for the asset managers for 1984. Adjusting for nonresponse (either no answer to number of properties requiring appraisal or annual cost of the appraisals) the 26 firms answering expended over $3 million on 867

EXHIBIT 4.6
DATA SUMMARY FOR QUESTIONNAIRE OF APPRAISAL POLICIES
NUMBER OF APPRAISALS AND COSTS

Number of interests requiring outside appraisal	1,076
Actual cost expended	$3,123,000
Number of different firms used	206
Average cost per appraisal	$2,902
Observations excluding zero entries	26
Number of appraisals	867
Actual cost	$3,040,000
Average cost	$3,506

Source: Questionnaire sent to asset managers.

appraisals, at an average cost of $3,506. The average is for both original and subsequent update appraisals, which, should be much less expensive than the original since the data are already collected.

Summary Data on Properties With Original and Update Appraisals

Exhibit 4.7 details the property type for the original and the update appraisals were performed. While three appraisals on industrial buildings were received, the figures for office buildings, warehouses, and shopping centers are in line with the ownership patterns seen earlier.

Appraisal dates have an almost even spread between 1982, 1983, and 1984 (Exhibit 4.8), with just five prior to or after those dates. The updates were all performed after 1982.

Nine of the appraised properties are in California, eight in Texas, four in Florida, and three in Illinois. The other 15 are geographically spread from Rhode Island to Washington state and from Minnesota to Louisiana.

EXHIBIT 4.7
SUMMARY OF DATA FROM CHECK LIST OF APPRAISALS RECEIVED
BY PROPERTY TYPE

PROPERTY TYPE	NUMBER OF ORIGINAL APPRAISALS	NUMBER OF UPDATE APPRAISALS
Apartments	1	0
Office buildings	15	9
Shopping centers	7	2
Industrial buildings	3	2
Warehouse buildings	13	4
Total	39	17

Source: Checklist prepared on the original and update appraisals.

EXHIBIT 4.8
SUMMARY OF DATA FROM CHECK LIST OF APPRAISALS RECEIVED
BY YEAR PERFORMED

YEAR	NUMBER OF ORIGINAL APPRAISALS	NUMBER OF UPDATE APPRAISALS
1980	1	0
1981	2	0
1982	10	0
1983	12	8
1984	12	6
1985	2	3

Source: Checklist prepared on the original and update appraisals.

Summary Data on Telephone Survey of Appraisal Firms

To complete the data, a telephone survey was made of the 23 firms that performed 38 of the 39 original appraisals (one appraisal was received unattributable to any firm). Of the 23 firms, one had gone out of the appraisal business and thus could supply no information, and three refused to cooperate; as a result, data on appraisal firms covers 19 firms who performed 33 of the 39 original appraisals and all 17 of the update appraisals.

Results regarding size of the appraisal firms and geographic location vis-a-vis the properties under appraisal will be discussed in Chapter 5, wherein the questionnaire data from asset managers is analyzed.

CHAPTER 5

RESULTS FROM QUESTIONNAIRE FILLED OUT BY ASSET MANAGERS

Introduction

To draw conclusions about the consistency and reliability of appraisals prepared for asset managers by outside fee appraisers requires that the appraisals be reviewed with respect to both features desired by the client (the asset manager) and those required by accepted appraisal theory and independent professional practice. This chapter presents, in detail, desires, procedures, and standards of the asset managers in hiring outside fee appraisers, the in-house appraisal review process, and the method of altering fund values based on each.

Data from the questionnaire completed by the 44 asset managers have been separated into three categories: (1) descriptive data about the funds under management, presented in Chapter 4; (2) data detailing managers' methods of hiring outside appraisers, how managers attempt to regulate the appraisal processes, and what review procedures and standards are used to assure the quality of submitted report will be covered first in this chapter, (3) procedures for preparing in-house review appraisals between outside independent valuations will be covered, and (4) the procedures for changing fund values will be explored.

Chapter 6 will then concentrate on the original and update appraisals received in the study with respect to the desires of the asset managers discussed in this chapter and accepted appraisal theory.

Where applicable throughout Chapters 5 and 6, results from the fourth data base - the survey of the appraisal firms that performed the original and update appraisals -will be brought into the discussion.

Criteria for Hiring Outside Fee Appraisers

This portion of the analysis will encompass four areas of inquiry:

1. Existing policy in the asset management organization,

2. Factors that lead the asset manager to hire and/or replace an appraisal firm,

3. Information supplied to the appraiser and by whom,

4. Attempts to control the appraisal process by the asset manager.

Existing Policy in Asset Management Organizations

Of the 44 respondents, 21 have an official written appraisal policy at least some of the time [1] (17 all the time), five have an unofficial written policy, and five others have a policy at least some of the time. Eleven firms have no written policy concerning the hiring of, or control of, the appraiser or the appraisal process. Of the 21 with written policies, 13 use letters of engagement for hiring appraisal firm. Letters of engagement from the appraisal firms are used by 11 firms at least part of the time. The pension sponsors for these 44 firms have never provided a letter of engagement, and only five have a written policy from a pension sponsor regarding the valuation process [2].

The original appraisal is required by 41 of the 43 managers to be a full narrative report [3]; one requires a form report and the other a letter report. An update appraisal by the same appraisal firm is required by 20 asset managers to be a full narrative report; two require a form report, and 20 a letter report. An update by a different firm is required by 33 asset managers to be a full narrative report; one requires a form report, and four a letter report . Seven asset managers indicated that they would supply a copy of the old appraisal to the new firm [4].

With respect to timing of the outside appraisal, the vast majority of the firms (30, or 70 percent) require an outside appraisal of all properties every year, 19 (43 percent) all of the time, and 11 firms (25 percent) require an annual appraisal on their properties some of the time. Seven firms (16 percent) require an outside appraisal every two years at least some of the time, and six (14 percent) require an outside appraisal more often than once a year. The balance of the respondents require an outside appraisal less often than every two years or had no specific schedule.

With respect to updating the original appraisal by an outside firm, 33 of the 44 asset managers use the same firm each year, and 11 indicated that they used a different firm each year. Of the 33, 25 indicated that they would use the same appraiser each year. Of the 11 asset managers that used different appraisal firms each year, nine change every three years, while one firm changes every year and the other every two years.

Factors For Hiring and/or Replacing an Appraisal Firm

In the process of hiring an outside appraiser, a professional designation from one of the appraisal associations is evidently of utmost importance. Thirty firms stated that a professional designation was required by their organization (in some instances at the insistence of the pension sponsor) and nine additional firms eschew a designation, but usually use a designated appraiser. Only two firms stated that they preferred an analyst other than a designated appraiser. Nine of the asset managers indicated they had a list of approved appraisal firms; however, none supplied the list to the research team as requested. An earlier dissertation by I. Richard Johnson [5] attempted to explore appraisal qualitv for pension property by collecting a cross section of appraisals directly from appraisers. Appraisers stonewalled the effort, apparently threatened by review of their work and defending the refusal to cooperate on the grounds that the appraisals were privileged information of the client. The cloak of privileged information on the financial information of a public fund to avoid an anonymous statistical study of the appraisals suggests that the appraisal profession still does not understand its role in the industry of financial data presented with credibility, replicability, and freedom from systematic bias.

Asset managers were asked to rank important considerations in hiring an outside appraiser. Results of a weighted score of 5 for the most important factor to 1 for the least important factor are included in Exhibit 5.1. Asset managers rank the importance of a local firm (a weighted score of 165) as by far the most important consideration in hiring an appraiser. One-half (22) of the firms responding considered a local firm's knowledge of the market the most important item, another quarter (11) ranked it second, two ranked it third, two ranked it fourth, and one ranked it fifth. Only six of the 44 asset managers failed to rank this factor. The importance of a firm that the asset manager had worked with in the past ranked second (a weighted score of 127), with only five asset managers failing to rank this factor as important. The third highest consideration was the importance of a national firm (a weighted score of 81); nine of the managers ranked it the most important factor and 13 others considered it important enough to rank.

EXHIBIT 5.1
RANK OF MOST IMPORTANT FACTORS IN HIRING
AN OUTSIDE APPRAISAL FIRM

	SCORE	TIMES RANKED FIRST
Importance of		
National firm	81	9
Local firm	165	22
Nationally specialized firm	62	3
No. of designated appraisers	44	2
Firm you have worked with	127	6
Cost of appraisal	70	1
Referral	72	2
Other	35	3

Source: Question 7 in questionnaire filled out by asset managers.

Note: The number of times ranked first exceeds 44 because several firms selected multiple number one rankings.

Initially, the low score for the importance of a designated appraiser was surprising in relation to the results mentioned above. However, in answering this question asset managers appeared to assume that they would hire a designated appraiser (the question regarding designated appraisers preceded the ranking question) and then ranked the most important factors. This theory is borne out by the fact that, of the 71 appraisals received, 67 were signed by an MAI or SREA [6]. Cost, which did not fare well on the weighted score, was the third item in terms of the number of times ranked in the top five: 75 percent of the firms (33) ranked cost as one of the five most important factors. However, cost appears to be important only if the first two or three factors are met.

Specialization by property type was considered important by almost half of the asset managers (21). Direct specialization with hotels/motels (75 percent of the firms that hold hotels in their portfolios deemed specialization important) and warehouse buildings (32 percent of the firms that have warehouse buildings in their fund deemed specialization important) were the most significant specializations required.

Responses from the telephone survey support the findings from asset managers with respect to the importance of a local firm and the importance of working with a firm that they had done business with in the past. Exhibit 5.2 separates the 23 firms who performed the 38 identifiable appraisals into three categories; those with a single office, those with multiple offices (more than one), and those who could or would not answer the survey.

EXHIBIT 5.2
RESULTS FROM THE TELEPHONE SURVEY OF APPRAISAL FIRMS
BY NUMBER OF OFFICES

	SINGLE OFFICE	MULTIPLE OFFICES	NO RESPONSE	TOTAL
NO. OF FIRMS	11	8	4	23
NO. OF APPRAISALS	15	18	5	38
AVERAGE NO. OF APPRAISALS	1.4	2.3	1.3	1.7
OFFICE LOCATED IN LOCALE OF SUBJECT				
YES	11	10	4	25
% OF TOTAL	29 %	26 %	10 %	64 %
NO	4	8	1	13
% OF TOTAL	11 %	21 %	3 %	33 %

NUMBER OF APPRAISALS	NUMBER OF FIRMS	NUMBER OF FIRMS	NUMBER OF FIRMS	TOTAL
1	7	5	3	15
2	4	1	1	6
5	0	1	0	1
6	0	1	0	1

Source: Combined results from checklist of original and update appraisals and phone survey of appraisers that performed the studies.

Sixty-three percent (24) of the 38 appraisals were performed by firms that had an office in the immediate vicinity of the subject property and, of 14 appraisals performed by firms located apart from the subject, 57 percent (eight) were performed by firms with multiple offices. Seven of the eight were performed by the two firms that prepared more than two appraisals under study; both are well-known national firms.

National firms, while not scoring well on a point basis in the asset managers' ranking, was second in the number of times ranked first by the asset managers. In addition, of the four appraisals prepared by single-office firms from outside the locale of the subject property, two were by firms who had performed an appraisal for the asset manager in their locale, and the other two were performed by a single-office national firm.

Similar to the ranking and scoring of the five most important reasons for hiring an appraisal firm, asset managers were asked to rank the five most important considerations in changing appraisal firms. Exhibit 5.3 summarizes the scores and number of times each question was ranked first. Errors in facts (score--191, with all 43 asset managers ranking it in the first five) and errors in computations (score--146, with 40 of 43 asset managers ranking it in the first five) were far ahead of any other reasons. Failure to meet deadlines (score--99), failure to use discounted cash flow (score--81), and failure to disclose information on comparables (score--79) round out the five most important reasons for dismissing an appraisal firm.

EXHIBIT 5.3
RANK OF MOST IMPORTANT FACTOR IN DISMISSING
AN OUTSIDE APPRAISAL FIRM

	SCORE	TIMES RANKED FIRST
Importance of		
Failure to meet deadlines	99	5
Errors in facts	191	28
Errors in computations	146	8
Quality of prose	43	2
Failure to use DCF	81	7
Failure to disclose info on omparable sales	79	3
Unwillingness to accept pro formas	13	0
Over restrictive qualifying and limiting conditions	42	2
Variance in values each year	23	1
An increase in costs	15	0
Photo and drawings quality	7	0
Other	29	3

Source: Question 8 in questionnaire filled out by asset managers.

Note: The number of times ranked first exceeds 44 because several firms selected multiple number one rankings.

Forty-one of the asset managers put no limits on the total annual fees paid to any one appraisal firm. While not a consideration by asset managers or by appraisal professional societies, the American Institute of Certified Public Accountants states that:

> (T)he appraiser should not have a relationship that would affect his objectivity toward the entity audited or the property being appraised. The appraisers' objectivity may be affected by any of these considerations:
>
> 1. He has a direct or indirect material financial interest in the entity or its real estate assets.
> 2. His fee is contingent or based on his valuation conclusion.
> 3. The type and extent of other services he performs for the entity are significant [7].

The appraisal certification provided in most appraisals refers only to an interest in the building and not a vested interest in the client. Accountants and others that provide data must choose between auditing and other bookkeeping services. This issue might be unimportant if asset managers' lists of approved appraisal firms are unrestricted or if the number of real estate interests that require outside appraisal stays stable.

To summarize, asset managers are apparently hiring a designated appraiser with local roots in the subject properties' community with whom they have previously worked. Familiarity with the firm's work will offset the need for a local firm in some cases, particularly if the firm is national. No limits are put on fees paid to any firm. Certain property types require specialization. Errors in facts and/or computations will cause the asset manager to look elsewhere for outside appraisal services.

<u>Information Supplied to the Appraiser and by Whom</u>

Exhibit 5.4 indicates the frequency with which selected information is provided to the appraiser. In the majority of the cases, information is being supplied by the asset management firm, secondarily from the property management firm and only in a few instances from a certified public accounting firm that performs the audit.

Additional information available to the appraiser and its frequency of availability is included in Exhibit 5.5. The question asked was "Does the appraiser have access to the information?" rather than if the information was always available.

EXHIBIT 5.4
FREQUENCY WITH WHICH TECHNICAL INFORMATION
WAS SUPPLIED TO THE APPRAISER

	ALL THE TIME	NEVER PROVIDED
Gross revenue	30	2
Operating expenses	30	2
BTU usage	23	5
KW hour usage	23	4
Reimbursables collected	31	2
Tenant improvements amortized	27	3
Leasing commissions amortized	26	4
Leasing comm payable	25	4
Rent delinquencies	31	2
Space rented but not occupied	31	2
CAM charges	33	2
Relative reimbursables collected	28	2
Non real estate income	31	2

Source: Question 31 in questionnaire filled out by asset managers.

EXHIBIT 5.5
INFORMATION THAT IS AVAILABLE TO THE APPRAISER

	ALL THE TIME	MOST OF THE TIME	SOME OF THE TIME	NEVER
architectural review	29	4	6	2
structural engr audits	29	3	6	3
energy audits	27	2	8	4
thermography studies	25	3	5	6
legal counsel	19	0	7	12

Source: Question 30 in questionnaire filled out by asset managers.

Attempts to Control the Appraisal Process

Any attempt by the asset manager to control the appraisal process may be the result of a desire to specify the definition of value or which specific real estate parcels or interests are to be valued separately. The asset manager may wish to limit the appraiser to only those techniques and/or assumptions that the asset manager views as relevant for the valuation of the property. A starting point of what the asset manager wants from the appraisal must begin with the definition of rights to be valued. The following two-part question was asked in the asset managers' questionnaire:

11. Which of the following represents, in terms of definition of interest to be appraised and definition of value, full disclosure to the investors in your fund?

a. Would you report only the net investment value of a property encumbered by existing leases, benefited by assumable financing and other entitlements, and including personal property, cash reserves, OR

b. Would you report fair market value as defined by the institute, assuming a cash sale and then report the net investment value which could be attributed to assumable financing, existing leases, personal property or intangible assets.

c. Do you give the appraiser direction as to the definition of value to be applied and any segregation of interest such as assumable financing, leasehold encumbrances, or non real estate assets to be valued separately.

Results from question 11 are split; of the 34 who answered, 16 would report only net investment value and 18 would report both market value and then net investment value. Nineteen of the asset managers indicate they provide the appraiser with the definition of value to be used in the appraisal and designate any interests to be valued separately. Exhibit 5.6 lists assets that managers directed the appraiser to value separately. Along with land and buildings; surplus land, leasehold values, and the value of assumable financing are valued separately most often.

EXHIBIT 5.6
SEGREGATION OF INTERESTS
TO BE VALUED SEPARATELY

	ALWAYS	MOST TIMES	SOME TIMES	NO
Land	29	1	5	7
Surplus land	18	3	11	5
Building/structures	27	2	7	6
Working capital	2	1	4	27
Personal property	2	1	15	18
Financing package (if transferable)	14	2	11	10
Existing leaseholds	17	3	10	7
Amortizing assets	4	2	10	20
Intangible assets	1	0	6	27
Other	2	0	1	7

Source: Question 10 in questionnaire filled out by asset managers.

As a follow-up question to the definition of interest to be appraised, the following question was asked:

12. Would you think it might be a useful measure of investment performance to provide annual comparisons of market value and investment value to indicate the efficiency with which asset managers are recapturing leasehold values, managing cash assets, and creating value for capital invested in property improvements or deferred expenditures.

While the research team could think of no reason why such a comparison to measure asset managers' efficiency should not be made, only 23 of 42 answering (54.8 percent) agreed, 19 (45.2 percent) thought it would be useless.

With regard to controlling techniques and/or assumptions, Exhibit 5.7 depicts the tabulation of the asset managers' responses to a series of questions regarding techniques and assumptions to be used in the appraisal process. Answers are disparate: while over 88 percent of the asset managers require the appraiser to identify comparable properties and identify terms of sale, only 9 percent limit the appraisers' qualifying and limiting conditions, and 25 percent (11) limit techniques or methods used. Of these 11, the predominant comment was to require discounted cash flow analysis and, while 40 percent supply the appraiser with a range of inflation adjustments, the appraiser is allowed the freedom to establish the rates 95 percent of the time. Significantly, over 47 percent attempt to control the potential conflicts between cash flow forecasts and historical accrual accounting methods--a subject that will covered in detail in Chapter 6.

Finally, questions were asked regarding the appraisal review processes. Twenty asset managers always have their CPA firms review the appraisals for reasonableness of financial projections, while three do most of the time, and six some of the time. Fourteen never have their CPA review the appraisal. In addition, 36 of 40 have an established appraisal review process by a combination of property managers (involved 80.5 percent of the time), the investment committee (involved 42.9 percent of the time), and the pension sponsor's account manager (involved 11.4 percent of the time).

In-house Appraisal Review Process

With appraisals being performed in most cases on an annual basis, in-house review of values between annual outside valuation can be needed. Eighteen asset managers indicated that such a review was conducted quarterly, five annually, and seven have no specific schedule. Sixteen of the managers indicated that they had some policy regarding in-house review, while 15 had no policy statement. In-house review is conducted by a staff appraiser in eight cases, the account manager 10 cases, and a committee made up usually of the account manager and members of the investment committee in 17 cases. In over half of those responding (15 of 29), a memorandum for the file was all that was required, for five a full narrative report was prepared, and for nine a preprinted form report was used.

EXHIBIT 5.7
ASSET MANAGER'S CONTROL OF TECHNIQUES
AND/OR ASSUMPTIONS

	YES	% YES	NO
Supply appraiser with a range of inflation adjustment	14	40.0	21
Appraiser sets own percentage adjustments	35	94.6	2
Supply appraiser with GIM [a] or NIM [b] or other formula	4	9.3	39
Put limits on methods and techniques to be used	11	25.6	32
Limit qualifying & limiting conditions	4	9.1	40
Reserve right to audit appraiser files	10	22.7	34
Require appraiser to specify terms of sale and define and identify comparables	39	88.6	5
Control conflict between cash and accrual accounting	18	47.4	20
Appraiser supplied with cash flow format	5	11.4	39
Appraiser allowed to use their own spread sheet	35	87.5	5

Source: Question 24-29 Questionnaire filled out by asset managers.

a Gross income multiplier.
b Net income multiplier.

Requirements for an in-house review varied between fund managers, with 11 requiring on-site inspection of the property, 11 others requiring that only the income data be reviewed, and 11 others indicating some other procedure including update of market information, comparable sales, regional economic analysis, and checking for any condition that might justify a change in value.

Altering Fund Values

Responsibility for changing a property value and thus the fund value rested with the investment committee in 14 of 35 responses (40 percent), the account manager five times (14.3 percent), the chief officer of the asset management firm three times (8.6 percent), and for 13, a committee or individual other than that specified above.

Virtual unanimity obtained in the lack of any rule for changing value because of such things as lease cancellation, change in occupancy percentage, an announcement of significant competition, natural catastrophe, or physical impairment of the building; rather, all but three rely on subjective judgment to alter the valuation in the event of the fore mentioned factors.

A specific query was made concerning capital improvements that modify the property and how they are treated by the in-house review appraiser. Nine of 31 responding indicated that the capital expenditures are included in income value and amortized as expenses, seven indicated that capital expenditures would be considered only if they modified net operating income, five indicated that the expenditure was added to the value and carried forward till the next outside appraisal, and ten others detailed the accounting treatment of the capital expenditure and did not go into detail about the impact on actual value of the property and thus fund value.

Chapter 6 will analyze results of the checklist prepared on the 39 original appraisals followed by an analysis of the 17 update appraisals provided by the asset managers. Results of the asset managers' responses to the questionnaire, as presented in Chapter 5, along with established appraisal theory and the results of the phone survey of appraisal firms, will be guides in judging the appraisals and the effectiveness of asset managers in hiring appraisal firms.

NOTES

1. Questions of this nature asked the managers to answer either: all the time, most of the time, some of the time, or never.

2. While the question was not asked, each asset manager can be presumed to have multiple pension sponsors.

3. Where less than the whole population of 44 is referred to indicates that the question was not answered by an asset manager.

4. The reason for switching appraisal firms periodically was presumed to avoid built-in bias; supplying the new firm with the old report might transfer some of the bias, and thus defeat the reason for the switch.

5. I. Richard Johnson, op. cit.

6. MAI and SREA are designations given by two leading appraisal associations to members that have qualified through testing, experience, and demonstration appraisals; MAI by The American Institute of Real Estate Appraisers and SREA by the Society of Real Estate Appraisers.

7. Accounting Standards Division of the American Institute of Certified Public Accountants, "Exposure Draft on the Proposed Guide on the Use of Real Estate Appraisal Information," Committee on Real Estate Accounting, (New York 1984).

CHAPTER 6

ANALYSIS OF APPRAISALS RECEIVED

Introduction

The goal of this chapter is to determine if the current state-of-the-art in appraisal for pension fund real estate assets leads to valuations that are both consistent and of high quality. Consistency and quality are measured with respect to accepted appraisal theory, the desires of the asset managers (set forth in Chapter 5), and valuation conclusions that can be replicated by the reader. To measure consistency each of the 39 original appraisals was evaluated and scored (basis for scoring is set forth below). If the appraisals are consistent then the scoring should show little variation for the data set. Quality will be measured by the level of the actual scores received by the sample. The 17 update appraisals were analyzed with respect to the original appraisal on that property.

The original appraisals will be analyzed first. The discussion will follow the conventional appraisal sequence, covering general information followed by the market and marketability section, land valuation and cost approach, market approach, income approach, and overall evaluation of the appraisals. Individual appraisals will then be scored on their content, techniques used, and conclusions drawn from the questionnaire and appraisal sections. The telephone interview with the appraisal firms that prepared the sample of appraisals will then be brought into the analysis. The update appraisals are analyzed before final conclusions are drawn.

Analysis of the Original Appraisals

The analysis of the 39 original appraisals received in the study will discuss three areas of interest:

1. Explain the data gathered as a result of the study,

2. Uncover any discrepancies between content of the appraisals and appraisal theory, and

3. Detail any discrepancies between content of the appraisals and what, according to the questionnaire, asset managers expect (discussed in the preceding chapter).

Scoring the Appraisals

Each of the appraisals was scored on a point basis for 12 separate sections of the report. They included:

1. Market analysis section,
2. Land valuation,

3. Market approach to value,
4. Determination of market rents,
5. Estimation of gross income,
6. Estimation of vacancy losses,
7. Estimation of operating expenses,
8. Estimation of alterations, replacements and additions to the capital account,
9. Derivation of the discount rate used in present value calculations,
10. Estimation of the resale price at the end of the projection period,
11. Income approach to value, and
12. Overall opinion of the appraisal.

The scoring was based on 5=excellent, 4=good, 3=average, 2=fair, 1=poor, and 0=the appraisal omitted that section. The criteria used in assigning scores to each section was based on whether that section was in accord with accepted appraisal theory as presented by AIREA, the desires of the asset managers (as presented in Chapter 5), and, where pertinent, if the reader was able to replicate the conclusions drawn by the analyst. Specifically, if there was a discrepancy with accepted appraisal theory and/or the reader could not replicate the analysts findings a score of fair or poor was assigned. Discrepancies from the desires of the asset managers are noted but did not affect the scoring because few asset managers currently use a letter of engagement to transmit their desires to the appraiser.

General Information

All 39 original appraisals are full-narrative reports; a summary of property type, location, size and valuation is contained in Exhibit 6.1. Thirty-three appraisals stated that their objective was to appraise the leased fee of the subject property; the other six appraised the unencumbered fair market value of the subject property. All but one appraisal valued the subject as defined.

Exhibit 5.5 indicated that studies and access to information on the subject property were available to the appraiser the majority of the time. Available legal counsel scored lowest with the information never provided by 27 percent of asset managers. Of the 39 appraisals reviewed, one structural engineering study was cited by the appraiser and none referenced architectural reviews, energy audits, thermography studies, or assistance from the client's counsel. Either the studies were not as available as asset managers indicated, or the studies were available and the appraiser either did not ask for them, did not use them, or they were used but not referenced.

EXHIBIT 6.1

SUMMARY OF THE APPRAISALS RECEIVED IN THE PREA APPRAISAL STUDY

	PROPERTY TYPE	CITY	ST	DATE	# SQ FT UNITS	VALUE $MM	VAL/UNIT	# UPDATES
1	SHOPPING CENTER	SUN CITY	CA	8503	85058	4.300	51	0
2	OFFICE/WAREHOUSE	DALLAS	TX	8407	202236	4.100	20	0
3	SHOPPING CENTER	DURHAM	NC	8411	64052	4.550	71	0
4	APARTMENTS	HOUSTON	TX	8210	545	18.000	33028	0
5	SHOPPING CENTER	COLORADO SP	CO	8301	250804	8.500	34	0
6	OFFICE BUILDING	BELLEVUE	WA	8409	82894	8.000	97	0
7	OFFICE/WAREHOUSE	MOUNTAIN VI	CA	8312	119041	9.000	76	0
8	OFFICE BUILDING	SACRAMENTO	CA	8307	50701	5.900	116	0
9	OFFICE/WAREHOUSE	SO SAN FRAN	CA	8412	67058	3.765	56	0
10	OFFICE/WAREHOUSE	NAPERVILLE	IL	8502	40500	1.050	26	0
11	INDUSTRIAL BUILDING	ELK GROVE	IL	8409	82620	2.075	25	0
12	OFFICE BUILDING	PLEASANTON	CA	8312	50820	7.900	155	0
13	OFFICE BUILDING	SAN FRAN	CA	8312	25267	6.550	259	0
14	OFFICE/WAREHOUSE	NILES	IL	8405	61675	1.620	26	0
15	OFFICE BUILDING	LONG BEACH	CA	8303	54800	2.610	48	0
16	OFFICE/WAREHOUSE	MEMPHIS	TN	8409	586642	11.500	20	0
17	SHOPPING CENTER	NEW SMYRNA	FL	8410	104434	5.000	48	0
18	OFFICE BUILDING	FORT WORTH	TX	8404	239070	15.750	66	0
19	OFFICE BUILDING	WARWICK	RI	8312	61273	3.660	60	1
20	OFFICE/WAREHOUSE	NASHVILLE	TN	8207	23875	0.591	25	1
21	INDUSTRIAL BUILDING	OMAHA	NE	8212	47577	1.040	22	1
22	INDUSTRIAL BUILDING	SANTA CLARA	CA	8309	120400	4.800	40	1
23	OFFICE BUILDING	ORLANDO	FL	8412	247609	24.500	99	1
24	OFFICE/WAREHOUSE	GRAND PRAIR	TX	8208	100000	2.880	29	0
25	OFFICE/WAREHOUSE	GRAND PRAIR	TX	8409	100000	2.880	29	0
26	OFFICE BUILDING	ADDISON	TX	8309	121190	9.750	80	1
27	OFFICE/WAREHOUSE	SPRINGFIELD	VA	8303	105600	3.348	32	1
28	SHOPPING CENTER	DAYTONA BCH	FL	8406	402176	46.100	115	1
29	OFFICE BUILDING	ATLANTA	GA	8303	197870	7.750	39	1
30	OFFICE BUILDING	CAMBRIDGE	MA	8206	118711	14.100	119	1
31	OFFICE/WAREHOUSE	TEMPE	AR	8109	88582	3.135	35	1
32	OFFICE BUILDING	KNOXVILLE	TN	8007	49731	3.630	73	2
33	OFFICE BUILDING	ORLANDO	FL	8312	124800	5.300	42	1
34	OFFICE BUILDING	METHIRIE	LA	8207	111199	7.950	71	3
35	OFFICE/WAREHOUSE	HOUSTON	TX	8112	168387	3.170	19	1
36	OFFICE/WAREHOUSE	HOUSTON	TX	8212	168387	3.100	18	1
37	OFFICE BUILDING	IRVINE	CA	8312	34767	5.650	163	2
38	SHOPPING CENTER	MINNETONKA	MN	8206	57861	4.600	80	0
39	SHOPPING CENTER	BURNSVILLE	MN	8206	66142	3.200	48	2

Source: Checklist of original and update appraisals.

Market and Marketability

Review of the market and marketability section of each appraisal included tabulation of demographic data, tabulation of information on the subject property's competition, and tabulation of data on the subject property's market; the last two are an indication of supply and demand--the ingredients to scarcity--one of the `factors of value' in appraisal theory [1].

Exhibit 6.2 indicates selected demographics presented in the appraisals for current, past (time series), and future projections. Of the 210 (35 appraisals X 6 data items) potential listings of data in the three categories, data were provided for current levels 81 times (38.6 percent), for past or time series data 54 times (25.7 percent) and for future projections eight times (3.8 percent). Out of the 630 total potential data entries for all three categories combined, data were presented in only 143 cases (23.4 percent), a remarkably low figure given availability of data for current, past and, future projections, and emphasis that appraisal theory places on such information:

> General data are essential in valuation because they (1) provide a background against which to place specific properties being appraised; (2) supply information from which possible trends affecting land values can be inferred and figures for appraisal calculations within the three approaches can be derived; and (3) form a basis for judgments about highest and best use, reconciliation of value indications within the approaches, and the final estimate of defined value [emphasis added] [2].

EXHIBIT 6.2
NUMBER OF TIMES DEMOGRAPHIC
DATA WAS PRESENTED

	CURRENT	PAST	PROJECTIONS
Population	30	22	6
Employment general	11	8	0
Employment by industry	17	7	1
Household income	11	8	0
Construction permits	10	8	0
Other	2	1	1
Total	81	54	8

Source: Checklist of original and update appraisals.

Note: Four appraisals presented no regional analyses.

A second dimension of market analysis concerns the supply of competitive space. Data on the supply of competitive space was gathered from regional, community, and neighborhood sections of the report, as well as from the income section in the determination of market rents. Exhibit 6.3 indicates the number of competing properties identified by each appraisal. In only three appraisal was the identification of competing properties the total population of competition for the subject property. Most of the subject properties were in relatively large metropolitan areas, making identification of all competing properties virtually impossible.

EXHIBIT 6.3
NUMBER OF COMPETING PROPERTIES
SPECIFICALLY IDENTIFIED PER APPRAISAL

NO. OF PROPERTIES	NO. OBSERVATIONS
0	2
2	1
3	2
4	9
5	6
6	2
7	3
8	3
9	2
10	3
11	3
15	1
34	1
50	1
TOTAL	39
AVERAGE	8.4

Source: Checklist of original and update appraisals.

Of the 37 appraisals that recognized competing properties, all included data on the competition's rent structure, but just over half (20, or 54.1 percent) provided data on the competition's vacancy rate. In determining earning power for a subject property, AIREA recognizes seven necessary forms of data; the fourth is "actual vacancy levels for the subject and competitive properties" [emphasis added] [3]. Disregarding data on the competition's vacancy level makes a thorough supply and demand analysis impossible, and would seem to make estimation of the subject property's projected occupancy levels a judgment that is, at best, ill-supported by data or, at worst, a guess at what might happen in the future.

Current and projected supply is of importance in the determination of the subject's vacancy rate [4]. The number of competitive properties under construction along with current competition would make up the projected future supply. Competitive properties under construction add to the available space and often, because they are new construction, are superior to the subject. Only 15 (38.5 percent) appraisals contained mention of projects under construction. In the balance of the appraisals, possibly no projects were under construction that would compete with the subject. A mention of that fact would have clarified the issue regarding any new competing supply of space coming on-line in the near future.

More subjectively, each appraisal was judged as to whether the information provided about the supply of competitive space was used in the valuation process and whether it should have been. Of the 30 appraisals that should have used the data on competitive space in the valuation process, only 7 (23.3 percent) actually did. Twenty-three of the appraisals omitted information on the supply of competitive space in the valuation process.

The third dimension of market analysis concerns the demand for space. Demand for space is usually calculated in one of two methods: 1) define a primary trade area (used primarily in retail analysis), estimate its size, and then project a capture rate, or 2) prepare an estimate from historical absorption rates (used in office, warehouse and industrial markets) for various types of space. A projection can then be made about future absorption levels and the rate of capture for the subject property. Of 39 appraisals, a total of 19 (48.7 percent) made an estimate of demand for the space being valued. Eleven (28.2 percent) identified the primary trade area and the size of the market and eight (20.5 percent) identified historical absorption rates. Only eight discussed current and future economic factors and their impact on demand, and, of the 31 appraisals which should have used current and future demand in the appraisal process, only three (9.7 percent) actually used estimates of demand or economic conditions relative to demand to adjust the valuation.

The three sets of data - general data on the region, level of competitive supply, and level of demand - are the keys to the economic environment in which the subject property must compete. The majority of the the appraisals under study did not use these data effectively in their valuation. The data were either omitted or, if present, were more often than not ignored when an assumption had to be made about short- and long-term vacancy rates for the subject property.

Of the 39 appraisals under study, only one received an excellent grade with respect to the market and marketability section including the regional economic analysis; six were graded good, 15 were average, 12 were fair, and five poor.

Cost Approach to Value

Of the 39 appraisals in the study, 32 performed a cost approach to value. However, in only one appraisal did the cost approach add to the valuation, and as a result other than the land valuation, the cost approach is ignored [5]. Valuation of the land, as part of the cost section, is pertinent added data concerning the market comparison approach to value and will be included in that analysis.

Market Comparison Approach to Value

Asset managers' responses to the questionnaire indicated that the market comparison section of the appraisal report carried specific requirements--namely, to identify comparable properties and specify terms of sale. Failure to identify comparables and terms of sale was the fifth-most important reason for an asset manager to dismiss an appraisal firm.

Exhibit 6.4 details the analysis of comparable properties for both the land valuation and market approaches to value. A market-derived land value was presented in 32 appraisals, and a separate market comparison section was presented for the subject in 36--or a total of 68 observations. Both

EXHIBIT 6.4
MARKET COMPARISON APPROACH TO VALUE

	LAND		SUBJECT		COMBINED	
	OBS.	% TOT	OBS.	% TOT	OBS.	% TOT
Market comparison included	32	82.1	36	92.3	68	87.2
Comparable sales specifically identified	28	87.5	35	97.2	63	92.7
Number of comparables						
2	1	3.3	1	2.8	2	2.9
3	0		3	8.3	3	4.4
4	5	15.6	6	16.7	11	16.2
5	11	34.4	5	13.9	16	23.5
6	5	15.6	6	16.7	11	16.2
7	2	6.3	4	11.1	6	8.8
8	4	12.5	3	8.3	7	10.3
9	1	3.3	2	5.6	3	4.4
10	0		2	5.6	2	2.9
11	0		2	5.6	2	2.9
13	2	6.3	1	2.8	3	4.4
17	0		1	2.8	1	1.5
21	1	3.3	0		1	1.5
AVERAGE		6.5		6.6		6.6
Terms of sale identified	7	21.9	20	55.6	27	39.7
Adjustments for terms						
Yes	0		8	40.0	8	29.6
All-cash sales	3	42.9	2	10.0	5	18.5
No, ignored	4	57.1	10	50.0	14	51.9
Adjust. for terms were						
Specifically computed	0		4	50.0	4	50.0
An assertion that adjust. were made	0		4	50.0	4	50.0
Overall adjustments were						
Calculated--$ per difference	4	12.5	3	8.3	7	10.3
An assertion that adjust. were made	28	87.5	33	91.7	61	89.7
Rating of market comparable						
Excellent	0		2	5.6	2	2.9
Good	5	15.6	6	16.7	11	16.2
Average	19	59.4	16	44.4	35	51.5
Fair	5	15.6	9	25.0	14	20.6
Poor	3	9.4	3	8.3	6	8.8

Source: Checklist of original and update appraisals.

valuations averaged between six and seven comparables, with four (16.2 percent), five (23.5 percent), and six (16.2 percent) being the most frequent.

Comparable properties were identified over 92 percent of the time, but, of the combined total of 68 market comparison approaches, only 27 (39.7 percent) specifically identified terms of sale. Over 60 percent omitted terms of sale (as was the case with competing properties under construction; if comparable sales were all-cash transactions, then the appraiser should state such) and yet, of the elements considered in making comparisons, terms of sale is identified first in appraisal literature as data that must be supplied [6]. Over 88 percent of the asset managers required that the comparable properties be identified and terms of sale be specified [7]. Of the 27 observations that identified terms of sale, eight specifically adjusted for them, five were all-cash sales, and 14 (51.9 percent) made an assertion that adjustments were made for terms of sale, but the reader was unable to replicate the results of the analysis [8]. In making overall adjustments to both the land valuation and market comparison section, almost 90 percent used the same process of asserting that adjustments had been made without specifying, other than direction what the adjustments were. Traditional appraisal theory asserts that adjustments can be made in two ways [9]: in percentages or in dollars [10]. Appraisal theory hold that an analyst cannot assert an adjusted price of so many dollars per square feet as the value of the comparable. In fact, appraisal theory states specifically that "sequenc[ing of adjustments] is recommended in all applications of the sales comparison approach" [11]. This practice would allow the reader to replicate the process used in arriving at the adjusted sales price for the comparable.

Failure of some appraisals to identify terms of sale or, if identified, lack of a formal adjustment process that could be replicated by the reader led to a relatively low rating of the market comparison approach. Fifty-five of the 68 appraisals (80.9 percent) failed to receive a rating above average and 20 (29.4 percent) received either a fair or poor rating. Unfortunately the market approach overall was not prepared well since "[w]hen adequate data are available, the sales comparison approach is usually considered the most accurate and reliable appraisal approach" [12]. With 32 of the market comparison approaches for the subject property having four or more comparables, adequate data would seem to have been available the majority of the time.

Income Approach to Value

Since all 39 appraisals under study are on income-producing properties, the income section of the appraisal received the most attention. Because different techniques of converting income estimates to a value conclusion require different data, the techniques will be explored first and then the data provided to arrive at the value indication will be analyzed.

Method of converting income to value estimate

Exhibit 6.5 details the frequency of each technique used in converting income projections to value estimates in the appraisals under study.

Discounted cash flow and direct capitalization were, by far, the preferred techniques. Of those using multiple techniques (14 appraisals), 13 preferred one method over the other (one stated no preference), 11 preferred discounted cash flow, and two preferred direct capitalization over discounted cash flow. Eleven of the appraisals did not perform a discounted cash flow analysis, and two others preferred direct capitalization over discounted cash flow [13], even though 36 of the 39 properties have multiple tenants on relatively short-term leases, and asset managers ranked failure to perform a discounted cash flow analysis fourth in reasons to dismiss an appraisal firm. One of the appraisals under study, in citing their reason for using discounted cash flow, summarized the need for discounted cash flow:

> (I)t is our opinion that the discounted cash flow method is the most appropriate valuation method, ... This is due to the fact that the subject is a multi-tenant property with several existing leases. The discounted cash flow method automatically incorporates any rent loss or lease advantage into the final value indication by modeling the existing leases at their current rates and applying market rates at times of renewal, rollover, or turnover [14].

EXHIBIT 6.5
INCOME SECTION TECHNIQUES USED

	NO.	% TOT
Discounted cash flow	28	71.8
Direct capitalization	24	61.5
Debt cover ratio - band of investment	2	5.1
Band of investment	1	2.6
Other-- i.e. Building residual	2	5.1

Source: Checklist of original and update appraisals.

Note: Percentages will not add to 100 percent because multiple techniques were used in some appraisals.

Market rents, income and operating expenses

In arriving at their income estimate, 29 of the appraisals relied on existing leases on the subject property, and 10 used market rents exclusively (six of the 10 were under construction as new or substantially remodeling at the time of the appraisal).

Separate estimates of various revenue and expense items are necessary when using discounted cash flow because different revenue and expense categories occur at different times. Exhibit 6.6 depicts whether separate estimates of revenue and expense categories should have been made and, if so, if they were.

EXHIBIT 6.6
ESTIMATION OF INCOME

REVENUE CATEGORY	SHOULD HAVE SEPARATE EST	DID HAVE SEPARATE EST
Base rent	39	38
Overage rent	6	6
Common Area Maintenance	9	6
Escalators	13	10
Reimbursables	23	15
Total	90	75
EXPENSE CATEGORY		
Tenant improvements	34	10
Leasing commissions	34	17
Programmed refurbishing	22	15
Total	90	42

Source: Checklist of original and update appraisals.

Overall, income was handled more consistently than expenses, with separate estimates of income being made in only 75 of 90 times (83 percent). Expenses were estimated separately less than half the time, 42 of 90 times (47 percent). For these categories, if discounted cash flow was used, timing of both the inflow of cash income and outlay of cash for expenses must be estimated.

Exhibit 6.7 indicates how many times specified categories of income and expenses were adjusted to match cash flow patterns. Expenses were adjusted for cash flow more often than income; in only two cases (once for common area maintenance charges and once for reimbursable expenses) did the appraisals recognize that income, other than base rents, are usually unknown until well into and often after the end of the year. Therefore, this income tends to trail receipt of base rents. Likewise, while accounting standards would amortize leasing commissions and tenant improvements over the length of the lease to spread expenses over the income earning period, to get an accurate estimate of cash flow, actual expenditure date (usually when the lease is renewed or a new lease written) must be estimated. An estimate was made regarding the date and amount of expenditures for leasing commissions and tenant improvements in nine of the appraisals. In 16, no attempt was made to estimate actual cash expenditure for either leasing commissions or tenant improvements. The other 11 appraisals omitted a discounted cash flow statement and thus did not make an estimate of leasing commissions or tenant improvements.

The importance of separate estimates for the actual cash expenditure for leasing commissions and tenant improvements can be demonstrated using the AIREA text, The Appraisal of Real Estate, in its demonstration of estimating a multiyear net operating income statement leasing commissions were estimated at over $1 million for the third year, 10.3 percent of the effective gross income for that year, and were the single largest expense item by over $200,000 (tenant improvements were included in replacement allowances and could not be analyzed) [15].

EXHIBIT 6.7
INCOME AND EXPENSES ADJUSTED FOR CASH FLOW

INCOME CATEGORY	SHOULD HAVE BEEN ADJUSTED	WAS ADJUSTED
Overage rent	6	0
Cam	9	1
Escalators	12	0
Reimbursables	21	1
Total	48	2
EXPENSE CATEGORY		
Tenant improvements	36	9
Leasing commissions	36	9
Programmed refurbishing	14	5
Total	86	23

Source: Checklist of original and update appraisals.

Rent concessions were mentioned in five of the appraisals but were used in adjusting current income in only three cases and future income in only two cases. Similar to the situation with competitive properties under construction, a definitive statement, positive or negative, concerning rent concessions would have clarified the issue. The 34 appraisals that omitted a discussion of rent concessions left the reader the uncomfortable task of assuming no rent concessions were prevalent in the market.

For those appraisals that included discounted cash flow, the future level of both income and expenses had to be estimated. Virtually all of the appraisals tied future levels of income to rental contracts in place and adjusted to estimate future market rents for vacant space and at the end of the lease term.

Both expenses and market rents were assumed to increase on a percentage per year basis in all but one appraisal (which assumed no increases). Exhibit 6.8 details percentages used for each. For both income and expenses, the most commonly used rate was 6 percent, 13 of 24 used it for income, and 11 of 20 used it for expenses. In only two cases did the analyst link the growth rate used to some index, like the Consumer Price Index, or to past history of rent escalation for the property type. The reader was asked to accept the appraiser's judgment with no supporting data on this assumption that is so critical to the valuation. The growth rate applied to income and expenses tends to increase both the future years' net operating income and, since most appraisals capitalize some future income to estimate the final sales price, increases the future sales price. The higher the growth rate, the more dramatic the impact on the value estimate. The growth rate in income was never linked to the market supply of competitive space. Even in periods of relatively rapid inflation, rent increases are difficult to pass on in markets with an excess supply of space. In periods of low inflation and an excess supply of space, a project would have to enjoy a significant monopoly advantage to command increasing rents over time.

EXHIBIT 6.8
ASSUMED GROWTH RATE IN INCOME AND EXPENSES

GROWTH RATE	INCOME	EXPENSES
0	15	19
1	0	0
2	0	0
3	0	1
4	0	0
5	6	3
6	13	11
7	3	3
8	2	2
	----	----
TOTAL	39	39

Source: Checklist of original and update appraisals.

note: Zero entries included 11 appraisals that did not use discounted cash flow; the balance were net leases, some with fixed income for the holding period.

Only one appraiser calculated what the total occupancy cost would be in the future for the tenant as a result of a growth assumption for rents; for instance, if a 6 percent annual compound growth rate is assumed, a $12 per square foot rent in year 1 of a ten year projection would have to climb to over $20 per square foot in the tenth year.

While appraisers had undoubtedly been supplied actual operating histories for the properties in question, those histories were presented in either the body of the text or in appendices in only eight cases. Other historical data such as energy usage, reimbursables collected, leasing commissions, and tenant improvements were never mentioned. While part of the appraisal process involves gathering a vast amount of data related to the subject property that must be pared down to manageable size, not presenting (at least in an appendix) historical operating record of the subject property is a major oversight.

Tenant improvements and leasing commissions

Because of the special nature of tenant improvements and leasing commissions--for discounted cash flow to adequately estimate the flow of expenditures for leasing commissions and tenant improvements and to estimate some deduction to normalized income for each if direct capitalization is used--additional data were gathered on these items. Lease renewals should have been anticipated in 36 of the 39 appraisals. Of the 36, 26 (72 percent) actually did recognize renewals. Leasing commissions were estimated adequately for 18 of the 26 (69 percent), while one estimate was too low and seven (27 percent) ignored commissions altogether; one-half of the 36 provided no adequate estimate of leasing commissions. Appraisal theory [16] states that leasing commissions, other than initial expenditures that are in the capital budget, should be included in the operating statement [17]. Tenant improvements were adequately estimated 11 times (42 percent) and ignored the other 15 times; 25 of the 36 appraisals failed to provide an adequate estimate of tenant improvements. Appraisal theory requires tenant improvements to be estimated in the operating statement [18].

Reimbursable expenses

Disparity was apparent in the handling of reimbursable expenses in the appraisals. Of the 23 appraisals that recognized reimbursable expenses, only 13 included reimbursements as income and then deducted the cost as expenses as they should have, while 10 netted reimbursement income against operating expenses and thus omitted them in the income statement. Appraisal theory is very clear on handling reimbursables: they are to be included in income and deducted in expenses [19]. To do otherwise, as 43 percent of the appraisals did, overstates net operating income. Netting out reimbursables assumes that the reimbursable expenses are collected for all space when, in fact, reimbursement can only be anticipated for rented space; no reimbursement comes from vacant space.

Vacancy rate

"The percentage [of vacancy] varies according to the type and characteristics of the physical property, the quality of the tenancy, current and projected supply and demand relationships, and the general and local economic conditions" [emphasis added] [20]. All appraisals were examined to determine whether the estimated vacancy rate for the first year of the income estimate was in line with historical operating results, the competitive supply for that type of space, and market demand for that space. Exhibit 6.9 summarizes results. While 74 percent of the appraisals estimated the vacancy rate to be in line with historical data, over 40 percent were out of line with market supply and/or demand, or the information was not provided. Shortcomings mentioned earlier in the market and marketability analysis are of primary concern when estimates of vacancy losses are made. "[T]he estimate of market value required in most...

EXHIBIT 6.9
VACANCY RATE ESTIMATION ANALYSIS

VACANCY--	YES	NO	DATA NOT PROVIDED
In line with historical data	29	9	0
In line with market supply	20	6	12
In line with market demand	21	3	14

Source: Checklist of original and update appraisals.

situations must have some reasonable, market-supported rationale if it is to fit traditional market value concepts" [21]. With respect to this precept; 25 of the 37 (68 percent) appraisals failed to receive a grade for determination of vacancy losses above average, with nine rated poor.

Reserves for replacement

Reserves for replacement and additions to the capital account are the last area to be analyzed in arriving at an estimate of net operating income. Only 23 of the 39 appraisals made an estimate for replacements, two others specifically mentioned it in their estimate of repairs and maintenance. Of these, only one actually tried to estimate when major expenditure might occur; the balance used a reserve account deduction. Fourteen of the appraisals had no deduction from income for replacements and additions to the capital account.

Overall evaluation of the operating statement

Each component of the operating statement was rated (using the 5 to 1 rating system mentioned earlier) regarding technique and content. Exhibit 6.10 gives results of these ratings. Determination of market rents (33 of 39 were rated good or better, 85 percent), followed by expenses (25 of 39 were rated good or better, 64 percent) and gross revenue (20 of 39 rated good or better, 51 percent) were the most highly rated components of net operating income. Estimation of the vacancy rate (25 of 39 were rated average or worse, 64 percent) and alterations and replacements to the capital account (36 of 38 were rated average or worse, 92 percent) were the most poorly rated components to net operating income. Overall, 92 of 191 observations (48 percent) were rated better than average, 35 observations (18 percent) were rated worse than average, and the remaining, 64 observations (33.5 percent) were rated average.

EXHIBIT 6.10
RATING OF THE COMPONENTS TO
NET OPERATING INCOME

CATEGORY	EXCEL.	GOOD	AVER.	FAIR	POOR
Est. market rents	8	25	4	0	2
Gross revenue	1	19	13	4	2
Vacancy rate	3	9	13	3	9
Expenses	3	22	11	0	2
Alter. and replace.	0	2	23	2	11
TOTAL	15	77	64	9	26
% of TOTAL	7.8	40.3	33.5	4.7	13.6

Source: Checklist of original and update appraisals.

Determination of Capitalization and Discount Rates and Resale Price

While the determination of net operating income is crucial in the valuation of commercial real estate assets, of equal importance is the estimation of the capitalization rate used in direct capitalization and the projection period and discount rate used in discounted cash flow. The capitalization and discount rate are the direct links between the income projection and the value estimate. The projection period dictates, to a great extent, the importance of the resale assumption used in discounted cash flow.

Exhibit 6.11 presents tabulations of capitalization rates, discount rate, and projection periods used in the appraisals. Of the 24 appraisals that used direct capitalization, 22 used a rate above 9 percent but below 11 percent, with these 24 averaging 9.8 percent. Selection of the discount rate produced a greater spread, ranging from a low of 12 percent to above 17 percent, with a central tendency in the 14-15 percent range. The 28 appraisals that used discounted cash flow had an average discount rate of 14.6 percent. Used by 23 of the 28, 10-year projection period predominates.

EXHIBIT 6.11
CAPITALIZATION RATES,
DISCOUNT RATES AND
PROJECTION PERIODS

CAPITALIZATION RATE		DISCOUNT RATE		PROJECTION PERIOD	
RATE	OBS.	RATE	OBS.	YEARS	OBS.
0	15	0	11	0	11
8	1	12	3	4	1
9	9	13	4	5	1
10	13	14	9	10	23
11	1	15	5	11	2
		16	4	15	1
		17	3		
AVERAGE	9.8	AVERAGE	14.6	AVERAGE	9.9

Source: Checklist of original and update appraisals.

Note: Zero entry indicates technique not used, actual rates were at least the stated rate.

Of the 28 appraisals that used discounted cash flow, three omitted their estimates of income over time and simply stated present values of cash flows and reversion without giving supporting data. As a result, calculations could not be verified--a major shortcoming. The other 26 were verified with a computer cash flow program and all were calculated correctly.

All but two of the appraisals assumed end-of-year cash flows; the other two, prepared by the same firm, assumed mid-year cash flows, a procedure (whether right or wrong) that will lead properties being appraised by that firm to have a higher value relative to firms that assume an end-of-year cash flow. Of particular concern was the failure to mention that mid-year discounting was being used to alert the reader to a technique outside the norm [22].

In determining the resale price when using discounted cash flow, 24 of the 28 capitalized the projection of net operating income at the end of the holding period, 15 used the first year of the new owner, and nine the last year of the current owner. Capitalization rates are shown in Exhibit 6.12 and tended to be higher, rightly, than those used in direct capitalization, averaging 10.3 percent, with 13 of the 24 in the 10 percent range.

EXHIBIT 6.12
CAPITALIZATION RATES USED IN
DETERMINING RESALE PRICE

RATE	OBS.
0	15
8	1
9	4
10	13
11	4
12	1
13	1
AVERAGE	10.3

Source: Checklist of original and update appraisals.

Note: Zero entry indicates technique not used. Actual rates were at least the stated rate.

Determination of the discount rate and resale price are critical in discounted cash flow. "[Discounted cash flows] effectiveness depends almost wholly on the discount rate selected. A minor change in the rate results in a major change in value" [23]. Rated in a similar fashion as rankings already presented, results are in Exhibit 6. 13. The method for determining resale price did not rate well, with 11 (39 percent) rated poor, 10 others rated as average, and none rated excellent. Determination of the discount rate (if no discounted cash flow analysis, then using the determination of the capitalization rate) received almost 50 percent excellent or good ratings, but 18 percent were rated poor.

Overall Evaluation of the Original Appraisals

Also included in Exhibit 6.12 is the overall rating of the income approach and of the appraisal. Only 13 (33 percent) of the income sections were rated good or excellent, a remarkably low figure considering that, in reconciliation of the final value estimate, all 39 appraisals based their final value conclusion on either the income approach alone, or the income approach and either market comparison or cost approach. The overall appraisals received 15 (45 percent) average ratings, 11 (28 percent) good

EXHIBIT 6.16

INDIVIDUAL APPRAISAL RATINGS BY PROPERTY TYPE

APPR.	# SCORE	OBS	% OF TOTAL	AVERAGE	ST DEV	APART.	OFF. BLDG	SHOP. CTR	IND. BLDG	WARHSE
1	49	11	89.09	4.45	0.82			89.09		
2	34	12	56.67	2.83	1.11					56.67
3	40	12	66.67	3.33	0.65			66.67		
4	38	12	63.33	3.17	0.94	63.33				
5	29	12	48.33	2.42	1.24			48.33		
6	41	12	68.33	3.42	0.90		68.33			
7	21	10	42.00	2.10	1.37					42.00
8	25	10	50.00	2.50	1.08		50.00			
9	17	10	34.00	1.70	0.67					34.00
10	37	12	61.67	3.08	1.24					61.67
11	22	10	44.00	2.20	0.92				44.	
12	34	11	61.82	3.09	0.83		61.82			
13	33	11	60.00	3.00	0.77		60.00			
14	23	12	38.33	1.92	1.16					38.33
15	34	11	61.82	3.09	1.14		61.82			
16	25	10	50.00	2.50	1.08					50.00
17	42	12	70.00	3.50	0.80			70.00		
18	48	12	80.00	4.00	0.85		80.00			
19	23	10	46.00	2.30	1.25		46.00			
20	26	10	52.00	2.60	0.84					52.00
21	28	12	46.67	2.33	1.23				46.	
22	29	11	52.73	2.64	1.03				52.	
23	23	12	38.33	1.92	1.38		38.33			
24	28	11	50.91	2.55	1.04					50.91
25	47	12	78.33	3.92	0.79					78.33
26	35	11	63.64	3.18	1.17		63.64			
27	29	12	48.33	2.42	1.08					48.33
28	26	11	47.27	2.36	1.03			47.27		
29	36	10	72.00	3.60	1.07		72.00			
30	31	9	68.89	3.44	1.01		68.89			
31	19	12	31.67	1.58	1.16					31.67
32	32	11	58.18	2.91	0.94		58.18			
33	35	11	63.64	3.18	0.98		63.64			
34	42	12	70.00	3.50	0.80		70.00			
35	30	11	54.55	2.73	1.10					54.55
36	32	11	58.18	2.91	1.30					58.18
37	42	12	70.00	3.50	0.67		70.00			
38	40	12	66.67	3.33	1.15			66.67		
39	44	12	73.33	3.67	0.98			73.33		
AVE.	32.54		58.08			63.33	62.18	65.91	47.80	50.51
ST. DEV.			13.15			0.00	10.77	14.53	4.47	12.47

Source: Checklist of original and update appraisals.

Results From Telephone Survey of Appraisers

Chapter 5 detailed the basis on which asset managers selected fee appraisers for valuation of their real estate assets. Tabulating the scoring of original appraisals with results of the telephone survey of contributing appraisal firms will allow a check on asset managers' basis for hiring an appraiser. Presumably those appraisals that match best to the asset managers basis for hiring an appraisal firm should have higher scores than those appraisals completed by firms with less than a perfect match. From Exhibit 5.1 the most important item other than an appraisal designation was hiring a local firm, presumably one familiar with the local market. From Exhibit 6.17 the best appraisals (the only two to score above 80 percent) were prepared by local firms. However, on average virtually no difference is seen between the mean score for appraisals prepared by a local firm (58.2 percent) and the average score for those prepared by a firm from outside the subject property's locale (58.7 percent). Similarly the closeness in scores for those firms with just one office (an average score of 60.5 percent) and those with more than one office (an average score of 58.7 percent) precludes a determination that the single office firm is significantly better (Exhibit 6.18).

The second most important item was a firm with which the asset manager had worked. Eight of the firms that completed the appraisals had at least two appraisals submitted by the same asset manager. Unfortunately, without the total population of appraisals from each asset manager, an assertion is impossible regarding those firms that had only one appraisal submitted; they may or may not have worked on an asset manager's other properties. However, the average score for those eight firms, totaling 24 appraisals, can be compared against the average for all 39 appraisals. The average score for those 24 appraisals was 57.8 percent, just slightly less than the overall average of 58.1 percent. Of the 23 appraisal firms, five are known to be national with respect to performing appraisals across the country, and these five firms performed 16 of the 39 appraisals. While not ranking high on a point score, importance of a national firm was ranked first by nine asset managers (second only to a local firm in first place votes). The average score for the 16 appraisals by the national firms is slightly

EXHIBIT 6.17
ADJUSTED PERCENTAGE SCORE BY LOCAL OR
OUT OF TOWN APPRAISAL FIRM

ADJUSTED SCORE	LOCAL	PERCENT	OUT OF TOWN	PERCENT
30.00-39.99	3	12.0	1	7.7
40.00-49.99	3	12.0	3	23.1
50.00-59.99	7	28.0	1	7.7
60.00-69.99	6	24.0	6	46.2
70.00-79.99	4	16.0	2	15.4
80.00-89.99	2	8.0	0	0.0
TOTAL	25	100.0	13	100.0
AVERAGE	58.2		58.7	

Source: Checklist of original and update appraisals.

better, 62.5 percent. However, without the highest scoring appraisal (89.1 percent), their average slips to just 60.8 percent, again not a significantly different score than the overall average. Appraisal firms that best fit the asset manager's preferred profile might have been expected to score higher than the average. This outcome, however, was not the case and would not have been a problem if the overall average had been a respectable number.

EXHIBIT 6.18
ADJUSTED PERCENTAGE SCORE BY NUMBER OF OFFICES FOR THE APPRAISAL FIRM

ADJUSTED SCORE	SINGLE OFFICE	PERCENT	MULTIPLE OFFICES	PERCENT	OTHER	PERCENT
30.00-39.99	0	0.0	2	11.1	2	40.0
40.00-49.99	2	13.3	4	22.2	0	0.0
50.00-59.99	6	40.0	0	0.0	2	40.0
60.00-69.99	4	26.7	7	38.9	1	20.0
70.00-79.99	2	13.3	4	22.2	0	0.0
80.00-89.99	1	6.7	1	5.5	0	0.0
TOTAL	15	100.0	18	100.0	5	100.0
AVERAGE	60.5		58.7		50.8	

Source: Checklist of original and update appraisals.

<u>Type of Value Estimate</u>

With the necessity of estimating so many items in the course of an appraisal, the probability of reaching an accurate point value estimate is highly unlikely. At each stage in the process when a value estimate was made, an inquiry determined if a range of values or only a point estimate was given. Results of that inquiry are shown in Exhibit 6.19. With only

EXHIBIT 6.19
SUMMARY OF VALUATION METHODS USED

	POINT EST.	RANGE	NO EST.
Overall value	39	0	0
Cost approach	31	1	7
Market approach	27	8	4
Direct capitalization	22	2	15
Band of investment	1	0	38
Backdoor approach	0	2	37
Discounted Cash flow	25	3	11
Other	2	0	37
Income approach	36	3	0
Total	183	19	149

Source: Checklist of original and update appraisals.

19 value estimates expressed as a range and 183 as point estimates (9 percent), using a range can hardly be designated as an established trend. Significantly, in the 36 appraisals that used a market approach, eight (22 percent) expressed their value estimate in terms of a range.

Compound Growth Rate of Net Operating Income

An interesting question arose. Of those appraisals that did a discounted cash flow and included a cash flow forecast (27 appraisals), what would the compound annual growth rate of net operating income have to be for net operating income over the holding period [25]? Exhibit 6.20 contains the results of that inquiry, along with the first and last years' vacancy rate [26]. Of the 27 appraisals, 18 (66.7 percent) had an annual compound growth rate above 6 percent, five were from 3-6 percent, and four were below 3 percent. Seven of the 18 appraisals with the highest assumed growth rates had higher vacancy rates in the first year than the last,

EXHIBIT 6.20
CALCULATION OF ANNUAL COMPOUND GROWTH RATE OF NOI

APPR.	YEAR 1 NOI	LAST YEAR NOI	HOLDING PERIOD	GROWTH RATE	VACANCY YR 1	VACANCY LAST
1	389,316	668,890	10	6.20	10.00	10.00
2	453,592	710,380	10	5.11	6.00	6.00
3	466,400	618,000	11	2.85	9.50	5.00
4	1,034,646	3,124,940	10	13.07	44.30	5.00
6	744,244	1,355,796	10	6.89	11.00	5.00
10	105,000	136,000	11	2.62	5.00	5.00
12	699,285	1,383,296	10	7.87	13.85	5.00
13	540,993	928,044	10	6.18	12.50	3.00
14	143,306	143,306	4	0.00	0.00	0.00
15	753,199	995,853	10	3.15	0.00	0.00
17	403,933	714,686	10	6.55	5.00	5.00
18	908,992	2,489,316	10	11.84	22.30	8.00
19	360,592	680,194	10	7.31	3.50	3.50
21	74,870	175,326	10	9.92	25.00	5.00
23	1,930,000	4,157,000	10	8.90	0.00	0.00
25	252,500	310,609	10	2.33	0.00	8.00
27	351,542	450,322	5	6.39	5.00	5.00
28	3,724,032	7,359,114	10	7.86	2.60	2.60
29	140,877	330,260	10	9.93	5.00	5.00
30	645,000	2,145,900	10	14.29	0.00	0.00
31	277,600	419,894	15	3.00	2.00	2.00
33	435,614	652,908	10	4.60	0.00	0.00
34	471,455	1,266,050	10	11.60	8.00	8.00
36	253,328	510,519	10	8.10	6.00	6.00
37	575,023	856,781	10	4.53	2.00	5.00
38	459,000	992,000	10	8.94	3.00	3.00
39	374,600	640,800	10	6.15	17.00	7.00

Source: Checklist of original and update appraisals.

which would account for the high growth rate; the other 11 had identical vacancy rates in the first and last years. While for most income-producing properties net operating income will undoubtedly increase over time, to sustain a compound annual growth rate in excess of 6 percent for a 10-year period might be viewed as speculative; therefore, the two appraisals that had growth rates in excess of 10 percent and no change in vacancy rate from year 1 to year 10 for a 10-year period appear to be unbelievable. The majority of appraisals performed from 1981 to 1985 were on buildings constructed in the 1960s and 1970s so that the income stream was well-seasoned and should have been impervious to rapid changes in either direction.

Changes in Capitalization and Discount Rates Over Time

The period from 1981 to 1985 saw a dramatic drop in the rate of inflation and in interest rates. Growth rates for income and expenses, discount rates, and capitalization rates should mirror this drop and should decline. Exhibits 6.21 through 6.25 tabulate growth rates, discount rates, capitalization rates, and the capitalization rate used to establish the resale price by the year the appraisal was completed. Regardless of the inflation rate or the level of interest rates, income apparently goes up by six percent per year. Expenses are not as consistent, but still tend to stay around the 6 percent growth rate. Probably the single most remarkable appraisal assumed that the gross income was increasing at 9 percent per year and expenses at only 3 percent--apparently inflation affects only income and not costs in the market for that subject property.

EXHIBIT 6.21
RATE OF GROWTH OF INCOME BY DATE OF APPRAISAL

RATE	1980	1981	1982	1983	1984	1985
5	0	0	4	1	1	0
6	0	0	1	5	5	2
7	0	0	1	1	1	0
8	0	0	2	0	0	0
9	0	1	0	0	0	0
AVERAGE	0	9.00	6.13	6.00	6.00	6.00

Source: Checklist of original and update appraisals.

note: The average rate of growth of income for 25 appraisals was 6.16 percent.

The capitalization rate increased slightly over the three years of a representative sample of observations (1982 through 1984) from 9.40 to 9.71 percent. During that same period the discount rate dropped on the average from 15.13 to 13.67 percent.

EXHIBIT 6.22
RATE OF GROWTH OF EXPENSES BY DATE OF APPRAISAL

RATE	1980	1981	1982	1983	1984	1985
3	0	1	0	0	0	0
5	0	0	2	1	0	0
6	0	0	1	5	4	1
7	0	0	2	0	1	0
8	0	0	2	0	0	0
AVERAGE	0	3.00	6.57	5.83	6.20	6.00

Source: Checklist of original and update appraisals.

Note: The average rate of growth of expenses for 20 appraisals was 6.05 percent.

EXHIBIT 6.23
CAPITALIZATION RATE BY DATE OF APPRAISAL

RATE	1980	1981	1982	1983	1984	1985
8	0	0	0	1	0	0
9	1	1	3	2	2	0
10	0	1	2	4	5	1
11	0	0	0	1	0	0
AVERAGE	9.00	9.50	9.40	9.63	9.71	10.00

Source: Checklist of original and update appraisals.

Note: The average capitalization rate for 24 appraisals was 9.58 percent.

EXHIBIT 6.24
DISCOUNT RATE BY DATE OF APPRAISAL

RATE	1980	1981	1982	1983	1984	1985
12	0	1	0	1	1	0
13	0	0	1	1	2	0
14	0	0	2	1	5	1
15	0	0	2	2	1	0
16	0	0	1	2	0	1
17	0	0	2	1	0	0
AVERAGE	0	12.00	15.13	14.75	13.67	15.00

Source: Checklist of original and update appraisals.

Note: The average discount rate for 28 appraisals was 14.43 percent.

Combining the results leads to some contradictions. The discount rate rate may fall [27] and the capitalization rate rise [28] if the anticipated inflation rate is estimated to decrease, which is certainly the case over the time period in question. However, if this was the case, the anticipated rate of growth of both income and expenses should have been decreased reflecting the lower anticipated inflation rate. The change in the average rate of growth of income changed less than .2 percent from 1982 to 1984, and the average growth rate for expenses changed by less than .4 percent and yet the discount rate fell by almost 1.5 percent on average. While there are other contributing factors (for instance the interest rate) a more consistent handling of the growth rates for income and expenses and the capitalization and discount rates would have been theoretically more appropriate. The rate used to capitalize income at the end of the holding period stayed fairly constant at 10 percent.

EXHIBIT 6.25
FINAL VALUE CAPITALIZATION RATE BY DATE OF APPRAISAL

RATE	1980	1981	1982	1983	1984	1985
8	0	0	0	1	0	0
9	0	0	2	2	0	0
10	0	0	2	1	8	2
11	0	0	1	3	0	0
12	0	0	1	0	0	0
13	0	0	1	0	0	0
AVERAGE	0	0	10.57	9.86	10.00	10.00

Source: Checklist of original and update appraisals.

note: The average capitalization rate for the determination of final sales price for 24 appraisals was 10.13 percent.

<u>Capitalizing Net Operating Income to Determine Resale Price</u>

The rate used to establish the resale price by capitalizing the income at the end of the holding period was investigated with respect to the rate and whether the appraisal used the income from the last year of the holding period or the income from the first year of new ownership.

Results seem to indicate that those using the last year of the holding period are more conservative on two counts. First, net operating income was held constant over the holding period in only one case; in all other appraisals, net operating income was increasing. Thus, using the first year of new ownership will result in the use of a higher net operating income. Second, on average those using the last year of the holding period used a higher capitalization rate: 10.67 percent versus a 9.80 percent average rate for those capitalizing the estimate of the income from the first year of new ownership (see Exhibit 6.26).

The impact of this assumption can best be demonstrated with an example: assume that net operating income is increasing at 6 percent per year and that estimated income for the last year of the holding period is $100,000. Using the 10.67 percent average capitalization rate on the last year's income ($100,000) results in a final estimated sale price of $964,320. If the income of the first year of new ownership ($106,000) and an average capitalization rate of 9.80 percent are used, the resulting sale price is $1,081,632, some 12.2 percent higher. Or, with these assumptions, a $117,313 higher resale price per $100,000 of net operating income results if the income from the first year of new ownership is used combined with the lower average capitalization rate. With a 10-year holding period and a discount rate of 15 percent, an increase in the present value of $30,000 per $100,000 of net operating income results. The correct method will be dictated by available data. The appraiser would have to determine if the comparable property's net income was historical, indicating that the last year of the holding period must be used, or that the net income was a projection, indicating that the first year of new ownership must be used. Unfortunately, determination of the resale price in the appraisals had the worst rating, telling if the comparable property's income, if given at all, was historical or a projection is virtually impossible. In any case, if income is assumed to be increasing and the historical income and sales price are known, the calculated capitalization rate based on a projection must be higher than that calculated on historical records. From this sample, the opposite is true.

EXHIBIT 6.26
FINAL VALUE CAPITALIZATION RATE BY WHICH INCOME CAPITALIZED

RATE	LAST YEAR	FIRST YEAR
8	0	1
9	1	3
10	4	9
11	2	2
12	1	0
13	1	0
AVERAGE	10.67	9.80

Source: Checklist of original and update appraisals.

Analysis of the Update Appraisals Received

The 17 update appraisals received from asset managers will be analyzed with respect to the original appraisal in terms of whether individual sections of the update improved upon, was similar in quality to, or was rated inferior to the corresponding section of the original study. Of the 17, 12 were performed by the same appraiser, and five by a new analyst. Six of the updates were full narrative reports, six were short narrative reports that relied heavily on the original appraisal, and five were letter updates only summarizing changes, if any, to the original. Exhibit 6.27 gives the original appraisal number, the date, and valuation for both the original and the update, and the annual compound growth rate required to reach the new value [29].

EXHIBIT 6.27
SUMMARY OF THE UPDATE APPRAISALS RECEIVED

	ORIGINAL DATE	APPRAISAL VALUE $MM	UPDATE DATE	APPRAISAL VALUE $MM	GROWTH RATE
19	12/83	3.660	04/85	3.860	4.07 %
20	07/82	0.591	07/83	.600	1.52 %
21	12/82	1.040	12/84	1.100	2.84 %
22	09/83	4.800	09/84	5.200	8.33 %
23	12/84	24.500	06/84	24.500	0.00 %
26	09/83	9.750	09/84	9.801	0.52 %
27	03/83	3.348	03/85	3.900	7.93 %
28	06/84	46.100	12/84	47.300	5.27 %
29	03/83	7.750	03/85	5.250	-17.69 %
30 *	06/82	14.100	06/83	15.000	6.38 %
31 *	09/81	3.135	09/83	3.200	1.03 %
32	07/80	3.630	07/83	3.700	0.64 %
33 *	12/83	5.300	12/84	5.360	1.93 %
34 *	07/82	7.950	03/83	9.240	22.20 %
36	12/82	3.100	12/83	3.050	-1.61 %
37 *	12/83	5.650	12/83	5.650	0.00 %
39	06/82	3.200	10/83	4.000	18.22 %
Simple average growth rate of all 17 updates					3.62 %

Source: Checklist of original and update appraisals.

* Indicates an update appraisal prepared by another analyst.

Fourteen of the 17 updates showed an annual increase in value, with the required compound growth rate of value ranging from a low of .52 percent per year to a high of 22.2 percent per year. The average growth rate for the 14 was 5.8 percent per year. For two, the value remained unchanged and, for the other two, the value decreased.

Market and Marketability

With respect to the overall market analysis, for four updates, this section showed an improvement, one analysis was inferior to the original study, and the other 12 showed no change from the original. Only three of the reports updated regional economic data, reinforcing a trend noted on the original appraisals that regional economic analysis combined with analysis of supply and demand is an area that needs improvement.

Cost and Market Comparison

The original appraisals paid little attention to the cost approach to value, as did the updates; only three made a new estimate of the land value and cost approach. These three updates all added new land sales to their analysis; but the problems noted in the original appraisals arose also in the updates, with respect to identifying terms of sale and adjusting for differences between comparable properties and the subject in which the overall adjustment process could not be replicated by the reader. Two of the updates were better prepared than the original in determining the land value, one was inferior, and 14 were of the same quality.

The market approach to value was updated in 12 of the 17 (70.6 percent), and all added new comparable sales to their reports. However, the same problems in land valuation existed in the market approach; thus, only one of the 12 showed any improvement over the original in this regard.

Income Approach to Value

Determination of gross income, vacancy rate, and estimation of operating expenses were analyzed against the original appraisal in arriving at net operating income. A better estimate was made in only one case for gross income, in three cases for expenses, and, as indicated by the market analysis section, in no cases for the vacancy rate. Determination of gross revenue and estimation of the vacancy rate were both rated inferior in three cases, and expense estimates were twice rated inferior to the original. The criterion was that if a change occurred in the projected level of income, vacancy rate, or expenses, the update should fully document that change. In the eight cases in which the update was inferior to the original, changes were not adequately documented; the reader was asked to accept the changes on faith rather than fact.

Exhibit 6.28 displays growth assumptions used for both income and expenses for the original and the update appraisal. Eight of the 17 had growth rates for income and expenses in both the original appraisal and the update. The estimate was lower in four of the eight for income and in five of eight for expenses. The balance of the observations had no change.

Converting Income Estimates to Value Estimates

In converting the estimate of income to a value estimate, 10 update appraisals used discounted cash flow alone, three relied on direct capitalization, and four used both methods. Fourteen of the 17 (82.4 percent) used discounted cash flow, and two updates that had originally used only direct capitalization included a discounted cash flow analysis in the update; one of the two dropped direct capitalization. One of the updates that had used both methods in the original used only direct capitalization in the update. No change occurred in the rating for determination of the capitalization rate; in using the discount rate, three updates showed improvement and two evidenced a poorer analysis.

In estimation of the capitalization rate used to determine resale price at the end of the holding period --the worst rated section in the original analysis--four updates showed improvement, but four others were inferior to the originals. Exhibit 6.29 gives the date of the appraisal, the capitalization rate, and the rate used for determining the resale price for both the original and update appraisals.

EXHIBIT 6.28
COMPARISON BETWEEN ORIGINAL AND UPDATE APPRAISAL OF
INCOME AND EXPENSES GROWTH RATES

NO.	DATE OF APPRAISAL ORIGINAL	UPDATE	GROWTH RATE INCOME ORIGINAL	UPDATE	GROWTH RATE EXPENSES ORIGINAL	UPDATE
19	12/83	04/85	5.0	4.0	5.0	4.0
20	07/82	07/83	0	6.0	0	6.0
21	12/82	12/84	6.0	3.5	6.0	3.5
22	09/83	09/84	0	0	0	0
23	12/84	06/84	0	IDN[a]	0	IDN
26	09/83	09/84	0	0	0	0
27	03/83	03/85	6.0	IDN	6.0	IDN
28	06/84	12/84	7.0	5.0	7.5	5.0
29	03/83	03/85	6.0	6.0	6.0	6.0
30	06/82	06/83	5.0	0	0	0
31	09/81	09/83	9.7	0	3.0	0
32	07/80	07/83	0	0	0	0
33	12/83	12/84	0	6.0	0	6.0
34	07/82	03/83	5.0	5.0	7.5	7.5
36	12/82	12/83	8.0	8.0	8.0	5.0
37	12/83	12/83	8.0	6.0	8.0	5.5
39	06/82	10/83	5.0	5.0	5.0	5.0
NO. OBSERVATIONS			11	10	10	10
PERCENTAGE			64.7	58.8	58.8	58.8
AVERAGE			6.4	5.5	6.2	5.4

Source: Checklist of original and update appraisals.

a Indicates impossible to identify the growth rate.

With the decline in inflation and interest rates from 1980 to 1985, the three rates displayed in Exhibit 6.29, all things being equal, would be expected to decline. A capitalization rate was used in five originals and updates. The update rate was lower, as expected, once, three times it was the same, and once it increased. In 12 appraisals (both originals and updates) using a discount rate, the rate went down 10 times (83.3 percent) and stayed the same in the other two. The capitalization rate for the final value estimate was also used in 12 originals and updates, going down in five updates, staying the same in five, and increasing in two. The rates moved down, as expected, 16 (55.2 percent) of the 29 times, stayed the same 10 times (34.5 percent) and went up three times (10.3 percent). On average, rates moved as expected; the average capitalization rate dropped from 9.9 to 9.7 percent, the average discount rate dropped from 14.6 to 13.6 percent, and the final value capitalization rate dropped from 10.6 to 10.3 percent [30].

EXHIBIT 6.29

COMPARISON BETWEEN ORIGINAL AND UPDATE APPRAISALS OF CAPITALIZATION, DISCOUNT, AND FINAL VALUE CAP RATES

	DATE OF APPRAISAL		CAP RATE		DISCOUNT RATE		FINAL VALUE CAP RATE	
NO	ORIGINAL	UPDATE	ORIGINAL	UPDATE	ORIGINAL	UPDATE	ORIGINAL	UPDATE
19	12/83	04/85	0	0	15.0	14.8	11.5	11.5
20	07/82	07/83	10.5	0	0	14.4	0	11.0
21	12/82	12/84	0	0	14.0	13.8	10.0	10.0
22	09/83	09/84	10.0	10.0	0	0	0	0
23	12/84	06/84	0	10.3	14.0	12.0	10.0	11.0
26	09/83	09/84	9.0	9.5	0	0	0	0
27	03/83	03/85	10.5	0	15.3	14.0	10.5	9.8
28	06/84	12/84	0	0	14.5	14.0	10.0	9.3
29	03/83	03/85	0	9.0	17.5	15.5	11.0	10.5
30	06/82	06/83	9.5	9.5	15.0	14.0	12.0	12.0
31	09/81	09/83	10.0	10.0	12.5	0	0[a]	0
32	07/80	07/83	9.8	0	0	12.0	0	8.4
33	12/83	12/84	0	0	12.5	12.5	8.0	9.0
34	07/82	03/83	0	0	13.0	12.0	12.0	12.0
36	12/82	12/83	10.0	9.5	15.0	14.0	10.0	9.5
37	12/83	12/83	0	0	14.0	14.0	9.0	9.0
39	06/82	10/83	0	0	17.0	14.0	13.5	11.5
NO. OBSERVATIONS			8	7	13	14	12	14
PERCENTAGE			47.1	41.2	76.5	82.4	70.6	82.4
AVERAGE			9.9	9.7	14.6	13.6	10.6	10.3

Source: Checklist of original and update appraisals.

a Did not use capitalization of net operating income to arrive at final value estimate.

Capitalization Rates, Discount Rates and Time

With the danger of biasing the results toward appraisals that had an update, Exhibits 6.21 through 6.25 are reproduced in Exhibits 6.30 through 6.34 with the inclusion of data from the update appraisals. As stated earlier with respect to the drop in the inflation rate and in the level of interest rates, a drop would be expected in growth rates to income and expenses, in the capitalization rate used in direct capitalization and in determination of the resale price, and in the discount rate used for discounted cash flow. On average, the expected drop occurred for the the growth rate (income from 6.16 percent to 5.96 percent and expenses from 6.05 percent to 5.81 percent) and the discount rate (from 14.43 percent to 14.17 percent). Conversely both capitalization rates on the average went up --the rate used in direct capitalization from 9.58 percent to 9.61 percent and the rate for capitalizing future income to arrive at a final sales price from 10.13 percent to 10.20 percent.

EXHIBIT 6.30
RATE OF GROWTH OF INCOME BY DATE OF
ORIGINAL AND UPDATE APPRAISALS COMBINED

RATE	1980	1981	1982	1983	1984	1985
3	0	0	0	0	1	0
4	0	0	0	0	0	1
5	0	0	4	3	2	0
6	0	0	1	7	6	3
7	0	0	1	1	1	0
8	0	0	2	1	0	0
9	0	1	0	0	0	0
AVERAGE	0	9.00	6.13	6.00	5.65	5.50

Source: Checklist of original and update appraisals.

Note: Average rate of growth of income for 35 appraisals was 5.96 percent.

EXHIBIT 6.31
RATE OF GROWTH OF EXPENSES BY DATE OF
ORIGINAL AND UPDATE APPRAISALS COMBINED

RATE	1980	1981	1982	1983	1984	1985
3	0	1	0	0	1	0
4	0	0	0	0	1	1
5	0	0	2	4	1	0
6	0	0	1	6	5	2
7	0	0	2	1	1	0
8	0	0	2	0	0	0
AVERAGE	0	3.00	6.57	5.81	5.68	5.33

Source: Checklist of original and update appraisals.

Note: Average rate of growth of expenses for 31 appraisals was 5.81 percent.

EXHIBIT 6.32
CAPITALIZATION RATE BY DATE OF
ORIGINAL AND UPDATE APPRAISALS COMBINED

RATE	1980	1981	1982	1983	1984	1985
8	0	0	0	1	0	0
9	1	1	3	4	3	1
10	0	1	2	5	7	1
11	0	0	0	1	0	0
AVERAGE	9.00	9.50	9.40	9.64	9.78	9.50

Source: Checklist of original and update appraisals.

Note : Average capitalization rate for 31 appraisals was 9.61 percent.

EXHIBIT 6.33
DISCOUNT RATE BY DATE OF
ORIGINAL AND UPDATE APPRAISALS COMBINED

RATE	1980	1981	1982	1983	1984	1985
12	0	1	0	3	3	0
13	0	0	1	1	3	0
14	0	0	2	6	6	3
15	0	0	2	2	1	1
16	0	0	1	2	0	1
17	0	0	2	1	0	0
AVERAGE	0	12.00	15.13	14.16	13.49	14.86

Source: Checklist of original and update appraisals.

Note: Average discount rate for 42 appraisals was 14.17 percent.

EXHIBIT 6.34
FINAL VALUE CAPITALIZATION RATE BY DATE OF
ORIGINAL AND UPDATE APPRAISALS COMBINED

RATE	1980	1981	1982	1983	1984	1985
8	0	0	0	2	0	0
9	0	0	2	4	2	1
10	0	0	2	1	9	3
11	0	0	1	5	1	1
12	0	0	1	2	0	0
13	0	0	1	0	0	0
AVERAGE	0	0	10.57	10.17	9.94	10.36

Source: Checklist of original and update appraisals.

Note: Average capitalization rate for the determination of final sales price for 38 appraisals was 10.20 percent.

Including data from update appraisals on the final sales price and whether the capitalization rate was applied to the last year of ownership or the first year of new ownership does little to change the results addressed earlier dealing with the more optimistic outcome using the first year of new ownership (a higher estimate of income is capitalized at a lower rate resulting in a higher value estimate). Results from that addition are in Exhibit 6.35.

Overall Rating of the Update Appraisals

The overall rating of 11 sections of the update appraisal is summarized in Exhibit 6.36 [31]. Ten specific areas of the update appraisals were addressed along with an overall opinion of the update with respect to the original. Of 187 potential responses, 29 (15.5 percent) updates proved to be an improvement over the original, 25 (13.4 percent) were inferior, and the balance--71.1 percent--were judged to be equal to the original. The high rate of unchanged updates would not be a problem if the originals had been highly rated--hardly the case here. On the whole, the updates did little, if anything, to change the assessment of a set of mediocre original appraisals.

EXHIBIT 6.35
FINAL VALUE CAPITALIZATION RATE BY WHICH INCOME CAPITALIZED

RATE	LAST YEAR	FIRST YEAR
8	1	1
9	3	6
10	4	11
11	5	3
12	2	1
13	1	0
OBSERVATIONS	16	22
AVERAGE	10.61	9.90

Source: Checklist of original and update appraisals.

EXHIBIT 6.36
SUMMARY OF RATINGS OF UPDATE APPRAISAL

SECTION	BETTER	NO CHANGE	WORSE
Market analysis	4	12	1
Land valuation	2	14	1
Market approach	1	16	0
Gross revenue	1	13	3
Vacancy losses	0	14	3
Expense section	3	12	2
Capital. rate	0	17	0
Discount rate	4	12	1
Resale price	4	9	4
Income approach	4	9	4
Overall opinion	6	5	6
Total	29	133	25
% of possible	15.5	71.1	13.4

Source: Checklist of original and update appraisals.

Conclusion

Are the practices currently in use between asset managers and independent fee appraisers providing consistently accurate valuations of the real estate assets? Based on the results of this study, the answer to this initial question must be no. Appraisers are not giving asset managers what they ask for, in many cases are not following prescribed appraisal theory, and often the analysis presented in the appraisals could not be replicated by the reader. Which is not to say that no good appraisals appeared in the 39 original appraisals or the 17 update appraisals reviewed; some works were excellent.

At the outset of this chapter the goal was set to determine the consistency and quality of appraisals prepared for the pension industry by evaluating the variation and level of performance of a sample of appraisals scored on the content of individual sections of the reports. An average appraisal would have scored 60 percent, while a good 80 percent, an excellent 100 percent, a fair 40 percent, and a poor appraisal would have scored 20 percent. The 39 original appraisals in the sample, 37 of the 39 prepared by designated appraisers, averaged just over 58 percent, slightly below average. The range was from 32 percent (poor to fair) to 89 percent (good to excellent) with a standard deviation of over 13 percentage points. A 95 percent confidence interval (two standard deviations) for the sample is 32 percent to 84 percent indicating wide variation in the quality of the reports. The variability centers on a mean that is below average indicating a lack of overall quality for the sample. In summary, some of the most serious flaws in the appraisals were:

1. Failure to tie the projected vacancy rate to the market supply and demand analysis,

2. Failure to disclose terms of sale for comparable sales,

3. Failure to explain adjustments in the market comparison approach for replication by the reader,

4. Failure to provide a discounted cash flow analysis for multitenant properties,

5. Poorly justified capitalization rates, discount rates and resale price capitalization rates.

The low average score, high variability in scores, and the specific flaws listed suggest that standardization of an appraisal policy, a set of protocols, and a formal letter of engagement might add to the consistency of the valuation process and might provide asset managers with a better product for the money expended.

NOTES

1. American Institute of Real Estate Appraisers, The Appraisal of Real Estate, (Chicago:AIREA), pp. 31 and 32.

2. Ibid., p. 107.

3. Ibid., p. 351.

4. Ibid., p. 361.

5. Seven of the appraisals did not use the cost approach to value.

6. Ibid., p. 314.

7. The final draft of Proposed Note 2 to the Standards of Professional Practice of AIREA on "Cash Equivalency in Value Estimates," specifically requires an appraiser to clearly define the terms of financing for both the subject and comparable sales.

8. To replicate means that the reader should be able to perform the same set of calculations and arrive at the identical answer the appraiser did.

9. Contemporary theory asserts that a point score method is better, Richard U. Ratcliff, Ratcliff Readings on Appraisal and Its Foundation Economics, Landmark Research, Madison, Wisconsin.

10. AIREA, p. 317.

11. Ibid,. p. 320.

12. Ibid., p. 331.

13. Martin, p. 28, makes a strong statement against a static model (direct capitalization) and favors a dynamic model (discounted cash flow) that can take into consideration such factors as inflation, competitiveness of the property, and capital expenditures, to name just a few.

14. Availability of appraisals from asset managers was made possible in part due to a pledge of absolute confidentiality and thus the author, firm, and property under consideration can not be identified. The quotation was from the first-ranked appraisal in the study.

15. AIREA, p. 383.

16. This author must take exception with AIREA policy in stating that commissions can be deducted in the year payable or expensed over the lease term (AIREA, p. 365). A projection of cash flow must estimate when the cash expenditure is made and must never use accrual accounting techniques.

17. AIREA, p. 365.

18. Ibid., p. 369.

19. Ibid., pp. 360, 361.

20. Ibid., p. 361.

21. John D. Dorchester, Jr., "The Next Era in Appraisal: Opportunity vs. Obsolescence," The Appraisal Journal (January 1985), p. 9.

22. Discovered only when the computer program used to verify calculations failed to arrive at the same present value. Hand calculations discovered the mid-year discounting.

23. Rod P. Johnston, "Appraising Income-Producing Properties: Another Way," The Appraisal Journal (January 1985), p. 28.

24. Ratings were intended to be rigorous with the assumption that, due to time and money constraints, no appraisal would approach 100 percent.

25. The calculation was to take the n-1 route of the net operating income in the last year divided by the net operating income in the first year minus one.

26. Large differences in the vacancy rate between the first and last year of the appraisal might very well result in a calculated growth rate that made no sense.

27. If the discount rate is made up of both a real rate of return and a premium for inflation then the rate would fall if inflation was projected to be lower.

28. The capitalization rate would rise reflecting the lower expectations of inflation and a resulting lowering of future income levels and thus a lower value.

29. The compound growth rate is the n-1 route of the update valuation divided by the original valuation, where N equals the time in months between the original and update divided by twelve.

30. No explanation is given on why the change in the discount rate is so much greater than for the two capitalization rates.

31. Estimation of reserves for replacement had no change in any of the 17 updates from the original appraisal.

CHAPTER 7

CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Introduction

The goal of this research has been to determine if an acceptable level of performance was being achieved by outside fee appraisers for asset managers contracting for the independent valuation of pension fund real estate assets. An acceptable level of performance would mean:

1. No significant overstatement of real estate values in the portfolio that would lead to under funding future benefits,

2. Recognizing entry and exit values must be set on appraised values rather than market values, it is still necessary to control variance due to bias and lack of comparability in the appraised value reported.

3. Because the appraisal is a costly annual management expense, it would be desirable that information provided be not only a valuation, but also a bench mark for fund and asset manager performance. In this way, the appraisal can become a more cost effective service.

Results of analysis of data from the questionnaire completed by asset managers (Chapter 5), the checklist of the original appraisals (Chapter 6), and the checklist of the update appraisals (Chapter 6) received in the study leaves little doubt that the level of performance by outside fee appraisers is inconsistent. Moreover performance standards could be helped by a standardized appraisal policy statement, a set of protocols in the procurement of appraisal services, and a formalized letter of engagement.

The results indicate a standardization of the appraisal procurement process is needed because reviewed appraisals, in general, did not provide asset managers with desired information indicated in the questionnaire, often violated prescribed appraisal theory, and were, at the very best, just average in quality. Only 17 of the 44 asset managers answering the questionnaire have an approved policy statement on the procurement of appraisal services and fewer, only 13, use a letter of engagement to convey the policy to the outside appraisal firm. Such a step can only add to the tools real estate asset managers need to convince pension fund managers to increase their commitment to real estate in their portfolios [1].

This chapter will present a proposed appraisal policy statement [2], discuss the need for protocols in data collection, present a proposed set of protocols, present a proposed letter of engagement, and make recommendations for further research. These conclusions were first presented to PREA in a jointly authored report with Professor James A. Graaskamp; it is no longer possible to distinguish the originality and origins of certain concepts.

Appraisal Policy Statements

A full appraisal of a specific property as a bench mark for investment decision and review may be appropriate as a condition to acquisition, renovation, and capital improvement. The appraisal also may be used as a control on disposition and sale, or as an annual valuation during ownership phase to set share values for a CREF and to gauge asset manager's performance.

To improve reliability and comparability a standard appraisal policy statement by those that procure outside appraisal services would identify the issues for which the appraisal is required, values to be determined, and establish certain procedures to be observed in the appraisal procurement process.

The present research concluded that the sample of appraisals received in the study showed inconsistencies with established appraisal theory and deviated from the desires that asset managers expressed in the questionnaire. These inconsistencies can lead to valuation variance attributable to poor definition of the assignment, systematic bias of appraisal firms, or nonstandard data definitions.

Nevertheless, 27 of the 44 asset management and pension sponsor groups responding to the survey were silent in terms of any written appraisal policy and only 13 had established written guidelines for procurement, use, or content standards governing appraisal of real property. The fact that a few fiduciaries specifically addressed these possibilities both in terms of policy directives and procurement practices indicates growing recognition that some policy standards are necessary. In addition, some investment sponsors may wish to enhance the relevance of appraisal reports by requiring additional elements that are optional with the client.

Both associations of real estate asset managers, PREA and NCREIF, have addressed the issue of a standardized method of procuring appraisal services: NCREIF through an attempt to develop a standard letter of engagement [3] (see Chapter 2) PREA by funding this study.

Congress has recognized that there was a need for consistency in appraisal with their September 1986 House Report 99-891, "The Impact of Appraisal Problems on Real Estate Lending, Mortgage Insurance, and Investment in Secondary Market." It probably should be presumed that ERISA is not far behind the lead congress took with mortgages. Recognition that certain standard definitions and procedures are critical for communication, cross-comparisons, and evaluation of appraisal performance has already appeared in the directives of the Federal Home Loan Bank Board for mortgage finance appraisals of investments properties, currently termed R-41(b&c) (see Chapter 2). These directives set a precedent for a written policy by those who have fiduciary responsibility for assets viewed by the Federal Savings and Loan Deposit Insurance Corporation (FSLIC) [4]. Existence of a written policy raises new levels of responsibility for fiduciaries. Parallels certainly exist in terms of pension fund relationships to Employees' Retirement Insurance Security Act (ERISA) and pension fund trustees as fiduciary managers of pooled savings for commercial investment.

In Europe a more elaborate set of standards and policy guidelines has or excellent ratings, and 13 (33 percent) fair or poor ratings. All but two of the appraisals were signed by a designated appraiser.

EXHIBIT 6.13
RATING OF THE APPRAISAL

CATEGORY	EXCEL.	GOOD	AVER.	FAIR	POOR
Discount rate	5	11	12	0	5
Resale price	0	7	15	0	11
Income section	1	12	12	5	9
Overall appraisal	1	10	15	10	3

Source: Checklist of original and update appraisals.

The person reviewing the appraisals was asked if they would hire this appraiser based on this report. The results were: without reservation, seven (18 percent); with some directions and instructions, 19 (49 percent); and, no, under no circumstances based on this report, 13 (33 percent).

Exhibit 6.14 summarizes rankings given to various sections of the appraisal reports. Sections with the highest average score are the determination of market rents, gross revenue, and expenses, all with an average score above three--an average rating. The section with the lowest average score was the determination of resale price with an average of 2.11, just slightly above a fair rating. Those sections that show the most variability are determination of the discount rate (standard deviation of 1.40), overall opinion of the appraisal (standard deviation of 1.39), vacancy loss determination (standard deviation of 1.28), and determination of the resale price (standard deviation of 1.20).

Exhibit 6.15 contains the frequency distribution of percentage scores. The bulk of the appraisals, 26 (or two-thirds) fell between 50 and 79 percent; only two were above and 11 below. Over 28 percent of the appraisals received in the study had an average percentage score of under 50 percent and only two (5 percent) ranked above 80 percent [24].

Actual scores for each appraisal are summarized in Exhibit 6.16. A simple percentage score of all appraisals would result in those appraisals that omitted a section(s) appearing to be rated lower than those completing all sections. Thus, an adjusted percentage score was used for comparison purposes. The percentage adjusts for the 31 instances that a ranking could not be given because a section of the appraisal was omitted or a technique being rated was eschewed. The average appraisal received an adjusted percentage score of 58.1 percent with a standard deviation of 13.2. The first appraisal received the highest score (89.1 percent) and the 31st the lowest (31.7 percent). The exhibit also breaks out the percentage score by property type. On average shopping centers scored highest and industrial buildings lowest.

EXHIBIT 6.14
SUMMARY OF RATINGS OF APPRAISAL SECTIONS

RATING OF	EXCEL	GOOD	AVER	FAIR	POOR	NA	AVE.	ST DEV.
Market analysis	1	6	15	12	5	0	2.64	0.99
Land valuation	0	5	19	5	3	7	2.81	0.82
Market approach	2	6	16	9	3	3	2.86	0.99
Market rents	8	25	0	4	2	0	3.85	1.04
Gross revenue	1	19	13	4	2	0	3.33	0.90
Vacancy losses	3	9	13	3	9	2	2.84	1.28
Expense section	3	22	0	11	2	1	3.34	1.15
Alterations, replacements	0	2	23	2	11	1	2.42	0.98
Discount rate	5	11	0	12	5	6	2.97	1.40
Resale price	0	7	0	10	11	11	2.11	1.20
Income approach	1	12	12	9	5	0	2.87	1.08
Overall opinion	4	10	0	15	10	0	2.56	1.39
Total	28	134	111	96	68	31		
% of possible	6.0	28.6	23.7	20.5	14.5	6.6		

Source: Checklist of original and update appraisals.

EXHIBIT 6.15
DISTRIBUTION OF PERCENTAGE SCORES

RANGE	NO. APPRAISALS	PERCENT
30-39	4	10.3
40-49	7	17.9
50-59	9	23.1
60-69	11	28.2
70-79	6	15.4
80-89	2	5.1
TOTAL	39	100.0

Source: Checklist of original and update appraisals.

been developed for fixed asset valuation and reconciliation of the appraisal/accounting interface. The Royal Institute of Charted Surveyors (RICS) in conjunction with the International Assets Valuation Committee of London (England has prepared an appraisal policy manual (see Chapter 2). These documents provided some definitions and guidelines for the recommendation that follow.

Research has shown the need for an appraisal policy statement, a set of information processing protocols, and a standardized letter of engagement. Both R-41(b&c) and RICS manuals are more detailed and elaborate than is appropriate for PREA at this time, but they provide some suggestions regarding appropriate subject matter for a policy statement draft. Exhibit 7.1 contains a proposed appraisal policy statement.

EXHIBIT 7.1

PROTOTYPE APPRAISAL POLICY STATEMENT

Because pension sponsors must compare their assets against the present value of future liabilities, a periodic valuation of the assets is necessary. For real estate assets, this valuation requires an independent appraisal. The appraisal not only values the asset but also provides the basis for measuring share values for a CREF but also gives valuable information concerning asset and asset manager performance.

A. Specific questions to be addressed by appraisal value determination:

1. Unit price of investment shares assuming real estate interests are priced at probable price or market value at which those specific interests could be sold at a given date as specified or defined by AIREA on specified valuation dates as a bench- mark for buy or sell transactions of investment shares. Unless otherwise specified, all definitions as established by AIREA will be used. The real estate asset being valued shall be broken into component values for:

    a. Land,
    b. Building(s),
    c. Furnishings and equipment,
    d. Assumable financing,
    e. Existing leases, and
    f. Any other legal constraint or benefit deemed necessary to be specifically identified as part of the asset package to be sold.

2. Asset value of a specific interest in a specific property given income and resale prospects for the underlying collateral.

3. Allocation of market value to specific components of expected real estate return including distributable

cash available from existing contracts and leases, distributable cash that could be realized by recapture of leasehold interest at current market value, distributable cash to be realized from systematic inflation of rental structures, and distributable cash to be realized from resale at original cost and resale adjusted for anticipated price appreciation or decline [a].

4. Periodic financial indicators of operating expense ratios, cash break even points, ratio of income reinvested in leasing and tenant improvements, capital improvements, as well as annual variance in revenue and expense realizations versus budget pro formas.

B. Definition of real estate investment categories and appraisal values relevant to each:

1. Investment grade properties (operational and 80 percent occupied)

   a. Market value of encumbered fee [b]

   b. Leasehold value of encumbrances to be recaptured [c].

2. Development properties (vacant, in transition, or less than 80 percent leased and occupied)

   a. Cost outlays or market value, whichever is lower

   b. Future value discounted by cost to complete (as in R 41(b&c) prototype).

3. Financial participation contract: investment value as discounted cash flow less reserve for resale cost. (custom- crafted, hybrid equity contract unlikely to meet presumptions of fair market value).

C. Definition of in-house appraisal standards:

1. All valuations for open ended funds are ultimately the responsibility of an in-house valuation, since the in-house procedure will set the value between outside independent appraisals and may override the conclusions made by the independent appraiser [d]. The independent appraiser is essentially auditing the objectivity of the in-house group by referring to external market facts, local conditions, and freedom from contagious collective optimism of the ownership. The in-house committee must avoid the subjectivity of a single individual, must establish a consistent procedure, and must record critical factors in their valuation process to be explicitly addressed in the next scheduled

independent appraisal. Fund management must limit the deviation of annual independent values from in-house values to no more than ___ percent from the lower value.

2. The in-house review committee will consist of no less than three persons, two of whom may have appraisal backgrounds while the third may be the property manager responsible for the asset to be valued. Acquisition agents, general management personnel, or institutional officers involved in fund marketing cannot be official members of the in-house review committee.

3. In-house appraisals of individual properties shall be provided as necessary to set portfolio values for official purposes and a summary of appraisal considerations must be put in writing in the property file on each occasion that the appraisal is reviewed or adjusted indicating the reasons for the action taken. Key assumptions of in-house committee must be explicitly analyzed by outside independent appraiser at the time of the next independent appraisal.

4. Period values should be reported to indicate value reported by the last independent outside appraisal, value added by additional capital investment from that date including the cost of the capital investment and the probable change in income that will result from the improvement, value lost from partial sale, equity withdrawal, or other financial adjustments, and value lost or gained due to in-house adjustments and the net value at the close of the subject period. Finally, the report should indicate the total change in value since the previous period of valuation.

5. Fund managers must define accounting rules for operating income distinct from capital investment outlays for amortized leasing commissions, tenant improvements, lease re-purchase, and renovations. Added investments between independent appraisals will be superseded by the next independent appraisal with an appropriate adjustment to additional capital investment.

D. Definition of frequency of appraisal by independent appraisers:

1. Annual appraisals for open-ended fund.

2. Three-year appraisals for closed funds.

3. Whenever value changed by in-house managers exceeds 5 percent of previous independent appraisal or ___ percent of total portfolio value.

4. Change of more than ___ percent in capital investment

through partial sale or expansion and refurbishment.

E. Control of accidental or systematic bias in the independent appraisal process:

1. A single appraiser will be assigned responsibility for the valuation and will hold a designation from one of the professional appraisal associations and will abide by the appropriate conduct standards [e].

2. The appraiser responsible for the valuation will have experience with property type under study.

3. To preserve the independence of the appraiser in terms of aggregate fees collected, relationships with subsidiaries, and protection of appraiser from intimidation through conditional fee collection no more than 20 percent of the gross annual billings of an appraisal firm will be allowed to be paid by any one asset management firm [f].

4. Any one appraisal firm will prepare no more than three consecutive independent appraisals on any one property [g].

5. Copies of previously prepared appraisals will not be supplied to a subsequent appraisal firm [h].

F. The contract for appraisal services will specify that either a report will be supplied by the asset manager, an investigation allowance provided, or waiver of responsibility stated in writing for the influence of the following for the property appraised:

1. Toxic wastes in the ground or spilled on the site.

2. Asbestos removal or other building code internal hazards.

3. Survey, deed restraints, or development code restrictions whose impact could adversely affect building value in the marketplace.

4. Any hidden mechanical or structural problem.

G. Specification of the discounted cash flow as methodology as a primary appraisal tool while permitting the appraiser to:

1. Utilize lease abstract reviews by other independent professionals without having to read the leases themselves.

2. Specify assumptions and empirical support for lease renewals based on projections of supply and demand for space.

3. Unbundle total value attributable to cash flow, change

in cash flow, equity build-up from amortized debt and resale components.

4. Provide key financial ratios such as expense ratios, cash break even, collection ratios on pass throughs.

5. Accept a standard accounting convention to place appraisal on cash basis accounting standard [i].

H. Optional policies of fund managing board could include:

1. Decision to spot-check appraisals on a random audit basis directly by pension fund managers bypassing asset managers.

2. Determination by pension fund trustees for random audit inspections of properties owned or contained within unit shares of commingled fund investors.

3. Requirements of pension fund managers for specialized engineering reports of properties with possible latent defects on some periodic basis furnished to the appraiser or requested by the appraiser.

a. See Exhibit 7.3, Standard Letter of Engagement for details.

b. Existing leases and assumable financing should be taken into account.

c. Leasehold value, when viewed over time, will indicate the asset manager's performance in recapturing values for the beneficiaries of the fund.

d. Only one fund specifically limited increases in values over the independent valuation.

e. The Standards of Professional Practice and Conduct of the Society of Real Estate Appraisers or the Code of Professional Ethics and Standards of Professional Practice of the American Institute of Real Estate Appraisers.

f. While the appraiser certifies that the fee for the appraisal is not dependent on the valuation derived, the accountant goes further and certifies that he has no other ongoing business relationship with the client, which expands the certification of independence.

g. Twenty-nine asset managers indicated that the same firm performed the appraisal on a given property each year.

h. Seven asset managers indicated that they supplied copies of the old appraisal on a property to the new firm.

i. In the analysis of the appraisals received in the study, only 25 cases out of a possible 134 (less than 20 percent) had an adjustment for income and expenses to recognize the differences between accrual income and cash flow.

Protocols Controlling Data Sources and Proper Appraisal Assumptions

The explosion of data, recognition of the investment risk inherent in the quality of data provided, and the discipline and cost of electronic data processing have outstripped working ethics and rules provided by professional appraisal societies. Many appraisers use outside market and engineering studies as a starting point for their work, relying on limiting conditions to provide a hold-harmless assumption on the reliability of outside data. At the same time, professional societies seem to argue that use of an outside data source is evidence that the appraisal is reliable and implies that the appraiser has exercised due diligence regarding the quality of the outside report.

Recent investment banking prospectuses have advanced appraisal value conclusions where leases were read by one professional group that forecasted revenue, where operating expenses were studied by a CPA firm and converted to a forecast of net operating income, with or without engineering assistance, and where the appraiser began by placing a value on a net income figure estimated by others. These practices may conflict with the concept of an independent valuation, while at the same time extensive hold-harmless clauses undermine the utility of an estimated sales price when legal, engineering, or environmental pitfalls have been ignored.

The appraiser has become the economic interpreter who must synthesize the significance of information from multiple professional sources into an estimate of the most probable price at which a property would sell if buyer and seller were fully informed about the facts available on diligent search. Relevant available details must be available to the appraiser and assumed acceptable as received from a professionally designated accountant (CPA), certified property manager (CPM), professional engineer (PE), attorney (JD) or registered architect (AIA). Indeed, the appraiser of the future may have these other professions in the appraisal office as a natural assemblage of professional real estate services. At the same time some major data incompatibility issues must be addressed in terms of the interface of appraisal with accounting, legal concepts of real property, and pitfalls inherent in land use control. Inquiry must also question legal liability for environmental degradation and opportunity for subtle distortion of the future by extrapolation of the past using computerized modeling of incomplete systems and invalid assumptions.

Research has shown (as reported in Chapters 1 and 2) that valuation of income real estate properties relies more and more on discounted cash flow simulation of property performance or a single price earnings ratio method called overall capitalization [5]. Discounted cash flow presumes the real estate is simulated on a strict cash accounting basis, whereas the Financial Accounting Standards Board (FASB) advocates accrual accounting for real estate including adjustment of nominal debt to economic equivalents. This dichotomy will become a major source of confusion for both appraisers and those who rely on appraisal reports. Here the Asset Management Association can have an impact by setting a standard to which all members would subscribe. Ironically, the overall capitalization rate method is based on an economic accrual method with reserves for replacement of short-lived items, but pursues an alternative method of smoothing net income that would be incomprehensible to FASB and its goals to measure economic productivity. The method of building a capitalization rate conceals implicit assumptions about a trend line of future property income and, thus, a future sales price of the asset.

Major conflicts in the accounting/appraisal interface concern amortization of deferred expenditures or tenant improvements, leasing commissions, points paid for long-term financing, and accounting procedures for recognizing income in markets where rent concessions are prevalent.

Another major area of concern in the accounting/appraisal interface is the necessity to allocate or attribute income to land, building, tangible personal property, intangible personal property, and working capital. When should the appraiser delineate revenues from the real estate enterprise and when should the appraiser value the whole as a going concern? Again, the Asset Management Association has an opportunity to set standards to which accountants must accommodate.

Traditionally, appraisers side-step encroachment on other professions by denying responsibility for legal or engineering issues, unless physical structural failures were clearly apparent to the untrained eye. However, appraisal evaluations that ignore basic engineering obsolescence relative to energy consumption, maintenance cost, or environmental risks for such things as asbestos and toxic waste can be construed as misleading. Major concern of those leading appraisal reform is to avoid the sin of omission which is implicitly misleading. Therefore, the logical sequence of appraisal would be to incorporate engineering surveys done prior to the appraisal of the structure, its equipment, and its site. Exhibit 7.2 is a prototype set of protocols regarding the appraiser, other professionals, and the asset managers staff.

As a general principle, the appraiser has unique expertise in collection and analysis of market data and off-site transactions as compared to the professional responsibility of the accountant and designated property manager for on-site data collection and control. Traditional appraisers were expected to reconstruct lease rolls, profit and loss statements, property management strategy, and probable financial structure of a buyer rather than accept data from others without challenge and without concurrence. Given the costs of micro data review, should the appraiser be expected to serve as an auditor of internally-generated data? Appraisal societies and asset managers must define:

1. Responsibility of the appraiser to flag legal, engineering, traffic, or structural issues requiring professional review,

2. Legitimacy of appraiser accepting audits of leases, operating budgets, and revenue collections provided by other professionals',

3. Legitimacy of appraiser accepting data on electronic media such as floppy disc for use in cash flow or data management models provided by:

    a. The asset manager client
    b. The accountant for the client
    c. Independent purveyors of software and operating

data

d. Market researchers, or

e. Investment brokers and Property managers.

4. Legitimacy of appraiser accepting a property management program being implemented by the asset manager as a point of departure for future revenues, expenses, and project characteristics.

EXHIBIT 7.2

PROTOTYPE APPRAISAL PROTOCOLS REGARDING DATA SOURCES AND ASSUMPTIONS

Appraisal protocols are concerned with the responsibility for supplying data and critical appraisal assumptions and the degree to which the appraiser must concur, be held harmless, or empirically validate through independent research the data in question. Issues raised by protocol grow out of availability of electronic data files, increasing conflicts in accounting and valuation procedures, growing legal and engineering pitfalls of land use controls, liability for environmental degradation, and a trend toward computerized modeling of future property market and financial performance. The following page presents a proposed set of protocols regarding who has responsibility for certain assumptions and data sources in the appraisal process. Because each asset manager may conduct their business differently, other sources of data will need to be evaluated for objectivity and the source should be identified so the reader can evaluate objectivity.

EXHIBIT 7.2A

PROPOSED APPRAISAL PROCESS PROTOCOLS

DATA ITEM OR ASSUMPTION	APPRAISER SUPPLIES	APPRAISER REVIEWS	APPRAISAL SOCIETY STANDARDS	APPRAISER'S ENGINEER	OWNER'S LEGAL SERVICES	OWNER'S POLICY STATEMENT	PROPERTY MANAGER	OWNER'S ARCHITECT
Legal Description of Property Interest					X			
Deed restrictions and covenants					X			
Five-year chronology of ownership and trans. involving transfer of fee		X			X			
Lease abstracts		X					X	
Engineering assumptions			X	X				X
Strategic management plan		X				X		
Selection of the definition of values to be reported		X	X			X		
Application of market comparison method and unit of comparison	X		X	X				
Application of cost to replace method and unit of comparison	X			X		X	X	X
Application of normalized income capitalization	X		X					
Adjustment to accounting history to establish normalized income	X					X	X	
Treatment of existing financing	X		X		X	X		
Logic for income capitalization rate	X		X			X		
Cash flow format		X	X			X		
Cash flow forecast	X		X			X		
Revenue under contract		X	X			X		
New contract revenue		X	X					
Lease turnover cost		X	X				X	
Rental concessions		X	X				X	
Market conditions, leasing strategy and net capture	X		X			X		
Gross and net operating expenses		X	X				X	
Gross and net real estate taxes	X	X	X					
Third-party financing format for most probable buyer	X		X			X	X	
Present value disaggregated by source of financial interest	X		X					
Economic environment	X		X			X	X	

Note: X denotes source and/or responsibility for data.

Proposed Letter of Engagement

The proposed letter of engagement, Exhibit 7.3, for procuring appraisal services for the original appraisal of a real estate asset owned by or on behalf of pension funds is designed to allow the asset manager flexibility in defining the assignment of the independent fee appraiser and yet allow for consistency in the valuation of pension fund real estate assets. The letter is not intended to hinder the professional appraiser or limit their independence in the appraisal process but rather to assure that the finished product follows guidelines approved by the Professional Asset Management Association and accepted appraisal theory.

The letter is heavily footnoted for clarification, and explanation based on the asset manager's response to the questionnaire, analysis of the appraisals submitted by asset managers, recommendations of the research team, and feedback from PREA's research committee. The letter of engagement is divided into four sections:

1. Specifications of the assignment--including the purpose of the appraisal and definitions of value and real estate interests to be valued.

2. Appraisal protocols--setting responsibilities for interpreting leases, integrating engineering data into performance forecasts, and projections to be derived for future performance from existing accounting data.

3. Appraisal methodology--a statement of the minimum content, techniques to be used, and required data to be submitted.

4. Appraisal business arrangements--those items concerning the contractual hiring of the appraisal firm.

EXHIBIT 7.3

DRAFT OF A STANDARD LETTER OF ENGAGEMENT

Date

Name and Address

Re:

Dear

We wish to engage your services for the appraisal of the referenced property to determine the market value of the interests owned by ______________________________ as of ________, 19__. The appraisal shall be prepared in accordance with the definitions, specifications, and requirements put forward in this letter. Your signature accepting this assignment witnesses your agreement with the terms as stated.

SPECIFICATIONS OF THE ASSIGNMENT

The purpose of the appraisal assignment is [a]:

a. Basis for investment share unit value
b. Basis for evaluation of management performance
c. Basis for monitoring buy-sell transactions
d. Inspection of the property and independent review of leases
e. Other____
____

The assignment is to estimate the market value of the subject property as defined by The American Institute of Real Estate Appraisers (AIREA).

Property rights to be valued are the fair market value as defined by AIREA, assuming a cash sale, and then the net investment value which could be attributed to assumable financing, existing leases, personal property, or intangible assets [b].

Final value should be allocated among the following assets (check where appropriate):

[] 1. Total land & building
[] 2. Land
[] 3. Surplus land
[] 4. Buildings
[] 5. Working capital
[] 6. Personal property
[] 7. Financing package (if transferable)
[] 7. Existing leaseholds
[] 8. Amortizing assets such as tenant improvements
[] 9. Intangible assets
[] 10. Other________________
____

APPRAISAL PROTOCOLS

Appraisal protocols relate to which parties will supply data and assumptions for the appraisal. The following matrix details data required, key assumptions to be made, and the party responsible for supplying the information.

Refer to Appraisal Protocols As To Data Sources and Assumptions, Exhibit 7.2 .

APPRAISAL METHODOLOGY

Other than where the client or client's agents have supplied data or assumptions, appraisal practice as prescribed by one of the professional associations should be followed. Concerning the three approaches to value, the following should be adhered to:

1. The cost approach--optional unless the data are needed for insurance purposes.

    a. In valuing the land as if vacant, follow the procedure prescribed below in the market comparison approach.

    b. The cost of the building new should be taken from one of the cost estimating services, adjusted for time and geographic location, or from a local engineer or architect with cost- estimating experience on this type of property.

    c. Estimates of depreciation should be detailed and fully documented so that the reader can arrive at the same estimate after reading the report and inspecting the property.

2. The market comparison approach must be completed and fully documented or an explanation of the nonapplicability of the approach because of lack of comparable sales must be provided.

    a. At least three comparable sales must be analyzed with a full description of the property and the transaction, including terms of sale.

    b. If the sales are not cash transactions, the price must be adjusted to a cash equivalent price. Adjustments must be specifically identified so that the reader can replicate calculations to arrive at the same value [c].

    c. The appraisal should identify and discuss the units of comparison to be used in the approach.

    d. Justification and explanation for each adjustment for comparability must be documented so that it can be replicated by the reader [d].

e. Value conclusions should be reported as a range to reflect potential error in available information or interpretation.

3. An income approach to value must be performed with discounted cash flow using cash accounting before taxes. Refer to the protocols section concerning who will provide key data and assumptions.

   a. Historical operating results, where applicable, of at least the previous year must be provided in the report. If historical operating results are in terms of accrual accounting, they should be adjusted, with full documentation, to reflect actual cash transactions and not accruals [e].

   b. The projection of cash flow shall be presented for the appraisal projection period, with appropriate assumptions explicitly stated and either documented or referenced as to source [f].

   c. Cash flows should be assumed to occur at the end of each year [g].

   d. The method of determining the final resale price should be fully documented or referenced as to source.

   e. The discount rate used to calculate present value should be fully documented or referenced as to source.

   f. The cash flow and resulting present value of the project should be unbundled and presented in five parts:

      1) Present value of an annuity for the holding period equal to the distributable cash [h] that can be projected from the income currently under contract--that is, income under contract less operating expenses for the subject property assuming no additional occupancy and no increases to either income or expenses [i].

      2) Present value of the increases to cash throw-off over the income under contract as established in #1 for the holding period.

      3) Present value of any reduction of indebtedness over the holding period.

      4) Present value of the sale at the end of the holding period should be reported in two parts:

         a) present value of sales proceeds that assumes no increase in value over the holding period, and

         b) present value of the difference between the actual assumed resale price and the present value arrived at in a).

5) Present value of the original indebtedness.

6) As an example:

ASSUMPTIONS:

1. Net operating income currently under contract is $100,000, increasing at 4 percent per year.

2. Resale price based on a capitalization rate of 10 percent on the last year of income.

3. A discount rate of 15 percent for present value purposes.

4. A mortgage balance of $650,000 with 25 years remaining, an interest rate of 11 percent, and monthly payments of $6,370.74.

STANDARD PRESENT VALUE CALCULATIONS

Year	Net Operating Income	Less Debt Service	Equals Distributable Cash		Present Value Factor[a]	Present Value
1	100,000	76,449	23,551	X	.869565	20,479
2	104,000	"	27,551	X	.756144	20,833
3	108,160	"	31,711	X	.657516	20,850
4	112,486	"	36,037	X	.571753	20,604
5	116,986	"	40,537	X	.497177	20,154
6	121,665	"	45,216	X	.432328	19,548
7	126,532	"	50,083	X	.375937	18,828
8	131,593	"	55,144	X	.326902	18,027
9	136,857	"	60,408	X	.284262	17,172
10	142,331	"	65,882	X	.247185	16,285
Total	1,200,611					192,780

Resale Price	1,423,311		
Less Loan Balance	560,510		
Net Proceeds	862,801	X .247185	213,271
Total Present Value of Equity			406,051
Plus Loan Balance Beginning of Projection			650,000
Present Value of Project			1,056,051

a Assumes end of year cash flows.

PROPOSED FORMAT FOR PRESENT VALUE CALCULATIONS

	PRESENT VALUE	PERCENT OF TOTAL
a. Present value of the annuity of income under contract $25,551 X 5.018769	118,197	29.1 %

b. Present value of increases to income:

Year	Change in Distributable Cash		Present Value Factor[a]	Present Value
1	0	X	.869565	0
2	4,000	X	.756144	3,025
3	8,160	X	.657516	5,365
4	12,486	X	.571753	7,139
5	16,986	X	.497177	8,445
6	21,665	X	.432328	9,366
7	26,532	X	.375937	9,974
8	31,593	X	.326902	10,328
9	36,857	X	.284262	10,477
10	42,331	X	.247185	10,464
Total	200,611			

	PRESENT VALUE	PERCENT OF TOTAL
b. Total	74,583	18.4 %
c. Present value of any decrease in debt (650,000 - 560,510 =89,490X.247185 =	22,121	5.5 %
d. Present value of net resale assumption assuming resale price equal to current valuation. 1,056,051 - 560,510 = 495,541 X .247185 =	122,490	24.7 %
e. Present value of the increase in value. 367,260 X .247185	90,781	22.4 %
Present Value of Equity	406,051	100.1 %
f. Present value of original debt	650,000	
Total Present Value of Project	1,056,051	

g. Key financial ratios including distributable cash as a percentage of original cash equity, and as a percentage of current net worth, expense ratios, implied annual compound growth rate of net income for the holding period, and other indices of investment performance should be calculated.

APPRAISAL BUSINESS ARRANGEMENTS

I understand that the fee for this assignment will not exceed $_______________ and that this fee includes an allowance for technical assistance of $_________________ to cover _______________________________ _____________________________________ [j]. Iunderstand that _______________ ______ from your office will conduct the appraisal and that the report will be signed by ______________________________.

________ copies of the appraisal shall be completed and delivered to our offices at ____ __________________ no later than _________________________. Should the appraisal fail to be delivered on or before this date, a penalty of ___________ per working day will be deducted from your fee. In addition, we understand that you and all personnel involved in the appraisal will be available for a review meeting within ____________ days of the delivery of the final report.

I understand that your firm carries and will continue to carry insurance for errors and omissions in the amount of $_______________________________ (please return current certificate with signed document).

Our fund manager ______________________________ and building manager ___________________________ will be available for meetings regarding assignment and gathering of necessary documents.

Documents to be made available to the appraiser and where they are available include [k]

____
____
____
____
____
____

Documents in the final report will include but not be limited to [l]:

____
____
____
____
____
____

Standard terminology as contained in ______________________________________ ___________________________ [m] shall be used in the report, the ethical standards ____ [n] shall be adhered to and the controls as presented in R 41(b) concerning self-contained reports or listing of reports incorporated by reference shall be followed.

We understand that your firm maintains the right to review and approve copies of any portion of the appraisal report published or quoted in any public materials, prospectus, or circulars.

If you are in agreement with the above, please sign and return the original to my attention.

Sincerely,

Accepted by______________________________
Title____________________________________
Date_____________________________________

a. Select one or more of the alternatives.

b. Because of the split by asset managers in what interests are to valued, as an alternative: "The property rights to be valued are the net investment value of the property encumbered by existing leases, benefited by assumable financing and other entitlements, and including personal property." While either definition of interest to be valued will result in the same final valuation, the one included in the body of the letter is recommended by the research team since it allows for an evaluation of management performance over time. Effective management would close the gap between investment value and unencumbered market value.

c. Less than 40 percent of the comparables had terms of sale identified.

d. In almost 90 percent of the comparables, an assertion was made that adjustments were made but the reader was unable to replicate the adjustment.

e. In particular, the appraiser should be conscious of historical rent concessions given and the impact on recognized income; recognition of overage rent, escalators, and reimbursables should reflect when the income is realized on a cash basis. Estimation of leasing commissions and tenant improvements should reflect when those expenditures will actually be made.

f. The appraisals under study reflected a consistent failure in explicitly stating assumptions and/or documenting sources of the assumptions. To claim `it is the opinion of the appraiser' is insufficient for assumptions, like the discount rate, that have such an impact on value.

g. While arguments can be made for mid-year discounting, each fund and the industry must become totally consistent in this respect if any hope of comparing fund values. The convention is overwhelmingly in favor of end-of-the-year discounting (37 of 39 appraisals).

h. Distributable cash is defined as:

> Gross income including base rents, rent escalations, overage rents, recovery of expenses,common area maintenance charges and any other miscellaneous income attributable to the project.
>
> Less losses due to vacancy.
>
> Equals effective gross income.
>
> Less all operating expenses including but not limited to real estate taxes, property insurance, utilities, and maintenance.
>
> Equals net operating income.

Less tenant improvement expenditures, leasing commissions, and capital expenditures.

Equals Distributable Cash.

Less interest and principal payments on debt.

Equals Cash Throw-off.

i. The projection of net operating income for year one can be used as a proxy for income under contract to simplify calculations.

j. Technical assistance could include but not be limited to hiring of engineers, architects, or legal counsel to review the property and/or documents relevant to the assignment.

k. These would include historical operating results, legal documents such as title reports, lease abstracts, or other contracts defining interests, relevant zoning ordinances, building codes, code violations or nonconforming waivers and maps, photos, floor plans, and graphics.

l. These would include legal documents such as title reports, lease abstracts, or other contracts defining interests, relevant zoning ordinances, building codes, code violations, or nonconforming waivers and maps, photos, floor plans, and graphics.

m. As an example: The Appraisal of Real Estate, The American Institute of Real Estate Appraisers, eighth edition, Chicago, Illinois, 1983.

n. As an example: "Code of Professional Ethics and Standards of Professional Practice," The American Institute of Real Estate Appraisers, (Chicago, IL: 1985)

Final Comments and Conclusions

This study concluded that current practices of procuring outside fee appraisals of real estate assets by asset managers for pension funds led to inconsistent appraisals that would distort share values in CREFs, distort pension fund assets in relation to the present value of future liabilities, and provide no accurate picture of both asset and asset manager performance. On the surface, the problem seemed to rest with the appraisal profession (the low average score for the appraisals under study). However, the research of procurement procedures indicates that at least some of the unevenness of appraisal performance is caused by failure of the consumer of appraisal services to communicate needs and expectations for the appraisal product. Regardless of the source of the problem, unless cured, continued investment in real estate by pension sponsors might be curtailed.

The asset manager needs to learn how to contract for professional services in appraisal just as he has learned to deal with architects, lawyers, accountants, and others who supply professional services [6]. The proposed policy statement, protocols and letter of engagement are intended to provide the consumer of appraisal services a standardized means of communicating needs and expectations to the provider of appraisal services. In addition, these documents will provide quality control guidelines for policing the product.

For those appraisers providing a quality service (and there were many), these documents should cause little if any additional work. Those appraisers providing an inferior product (unfortunately, too many) might find implementation of the documents a severe burden on their business.

Implementation of the appraisal policy statement, appraisal protocols, and standardized letter of engagement should lead to more consistent valuations for asset managers and thus for their pension sponsors. Standardization, by eliminating bias and unevenness in the appraisal product, will contribute to trust and encourage continued investments in the real estate medium.

Recommendations for Further Research

This research study is comprehensive in terms of contracting for outside independent appraisal services. There are two major questions that still need to be addressed. First, is to recognize that the role of appraisal in establishing equity between new investors and exiting investors in an open-end fund could be mitigated by altering the institutional process of funding or disinvesting units of the fund. Foe example, those withdrawing might be charged an appraisal risk discount of 2 or 3 percent, a discount hopefully representing an estimated standard error in total value and sensitive to the number of properties in the fund. Larger funds would have greater benefit of offsetting error and thus a lower discount. Alternatively, a call to withdraw would automatically be distributed overtime, say six quarterly payments based on the unit value in each quarter. Six quarters would permit two independent appraisals to occur for the majority of properties and hopefully, adjust for error in a single period. Further intensive research is needed for greater equity, such as the disenchantment clause in a joint venture. Secondly, the in-house review process was discussed in the study but, due to the paucity of data [7], insufficient conclusions could be drawn about the current state of the in-house review process. This area is important because for most funds the in-house review process occurs three times to each outside appraisal and only two firms in the survey indicated an established policy that would not allow the in-house review to raise the properties value above the outside valuation level. Asset managers are very sensitive on this issue wanting to maintain the independence of the outside valuation while the in-house review can override the independent appraisal.

Any set of documents that attempts to control professionals in work where they were basically uncontrolled in the past should cause some stir. Additional research into the reaction of the appraisal profession, pension sponsors, and governing bodies [8] might be appropriate.

Probably the most interesting and valuable research would be to look at appraisals prepared for firms who institute the proposed documents both before and after implementation to determine if the policy statement, protocols, and letter of engagement do indeed lead to more consistent valuations. This research would require a longitudinal study of a selected number of firms who instituted the documents to grade a sample of their appraisals over time (as was done in this study) and compare them to a sample of graded appraisals from firms that disregarded these documents.

A future journal article will contain a simple grading system based on the check list used to review the original appraisals. This will enable the practitioner to review appraisals received to evaluate whether they are getting there money's worth.

NOTES

1. While a work of this sort usually involves research and conclusions solely by the author, this study was unique in that the funding source (PREA) was deeply committed to the research and the final product. PREA's input into the drafting of the policy statement, protocols, and letter of engagement proved invaluable, as was the input of Professor James A. Graaskamp of the University of Wisconsin.

2. The appraisal policy statement along with the appraisal protocols and letter of engagement were drafted, submitted to the PREA research committee for recommendations, redrafted based on their recommendations and submitted to the general membership for comment and a further draft.

3. NCREIF has developed a standardized letter of engagement but it was unaccompanied by an appraisal policy statement or appraisal protocols.

4. Committee on Government Operations, "Impact of Appraisal Problems on Real Estate Lending, Mortgage Insurance, and Investments in the Secondary Market," 99th Congress, 2d Session, House Report 99-891 (Washington, DC: September 1986).

5. Kenneth M. Luscht, "The Behavior of Appraisers in Valuing Income Property: A Status Report," The Real Estate Appraiser and Analyst (July-August 1979).

6. In traditional areas where appraisals have been used for mortgage loans, tax appeals, and, eminent domain, the appraiser is part of a team with an advocacy position. Relative to pension assets and the ability to maintain trust between those with the ultimate responsibility to invest the funds and asset managers with specific property investment responsibility there is a unique opportunity for objective appraisal of real estate assets over a series of time periods.

7. While each asset manager was asked for sample in-house review reports only three were received and thus insufficient data were available to draw any conclusions.

8. ERISA, for instance, for the pension industry.

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APPENDIX

RREEF
The RREEF Funds

Donald A. King, Jr., Principal

March 22, 1985

M. Thomas Lardner
Lehndorff Management
3737 Noble, Suite 200
Dallas, TX 75204

Dear Mr. Lardner:

In October of last year the PREA research committee approved a study designed to standardize appraisal policy and the letter of engagement to be used in contracting for outside professional appraisal services in the valuation of pension fund owned real estate assets. Professor James A. Graaskamp, the Chairman of the Real Estate and Urban Land Economics Department at the University of Wisconsin-Madison, an academic member of PREA, was selected to oversee the research that would be conducted by one of his doctoral candidates. Because of the need for the study the Homer Hoyt Institute and PREA have funded the research.

At our January meeting the research committee met with Professor Graaskamp and Robert Gibson, the doctoral candidate, concerning a draft of the questionnaire to be sent to each PREA member. The questionnaire was redrafted and resubmitted to the research committee for comment and testing.

The finished product of this process is enclosed. It is anticipated that the results will provide PREA members with the means to standardize the appraisal of owned real estate assets. The success of the research effort now rests with the PREA membership. Your cooperation in filling out the enclosed questionnaire and supplying the documents requested is essential to the eventual completion of the standardized appraisal policy and letter of engagement.

The research team has indicated that all materials will remain confidential and that the appraisals requested will be promptly returned. RREEF has completed the questionnaire and supplied the requested documents, as have other members of the research committee.

875 North Michigan Avenue Suite 4114 Chicago, Illinois 60611 312/266-9300

RREEF

The RREEF Funds

If you have any questions please feel free to contact Professor Graaskamp or Bob Gibson in Madison, or myself. Thank you for your cooperation in the study.

Sincerely yours,

Donald A. King, Jr.

Donald A. King, Jr.
Principal

DAK/rag

Enclosures

The School of Business
University of Wisconsin–Madison

Graduate School of Business
1155 Observatory Drive
Madison, WI 53706
608/262–1555

March 22, 1985

M. Thomas Lardner
Lehndorff Management
3737 Noble, Suite 200
Dallas, TX 75204

Dear Mr. Lardner:

The Pension Real Estate Association (PREA) Research Committee has approved a study designed to develop a standardized appraisal policy manual for asset managers and a letter of engagement for appraisal services related to periodic valuation of pension fund real estate assets. The purpose of the study is to analyze the use of appraisals in the setting of unit values and to measure asset manager's performance; it is not the purpose of the study to define the relevance of appraisals to buy and sell decisions or operational problems like a real estate tax appeal.

The ability to accurately estimate asset values and measure asset performance relies largely on the ability to define income attributable to a specific asset at a specific point in time and to attribute a probable sales price attainable for the asset held at a specific point in time. The probable market price is generally determined quarterly to set investment unit values for new investors and repurchase of old shares, to inform investors of portfolio progress relative to earlier quarterly bench marks, and to measure performance of asset managers in both absolute and relative terms. Typically an independent appraisal provides a report of value on each anniversary following acquisition and an in-house committee reviews values each quarter.

To date there has been no standardization of the appraisal process to allow for consistent and objective reporting of fund values, except for such appraisal conventions which reflect the influence of the major appraisal organizations. These conventions are most often matters of form rather than substance. The study hopes to identify major causes of appraisal variation in substance and to suggest minimum provisions in a letter of engagement for appraisal services which PREA could advocate for standardization within its membership.

The study is designed to collect and analyze eight sets of data that PREA members are being asked to supply, including:

1. Any written policy on appraisal procedure specified by pension sponsors or generated by the asset managers used:

   a. in the direction and control of outside appraisal professionals engaged to appraise properties in the portfolio(s) managed by PREA members;

   b. when performing in-house appraisal for quarterly or other periodic asset valuation to set unit values.

2. Current drafts of any letters of engagement required by PREA members for outside appraisal services, supplied by appraisal firms prior to supplying appraisal services to the PREA member and/or provided by pension sponsors as a requirement of securing an asset management contract.

3. Any real estate accounting classification manual used for the accounting of your owned real estate assets.

4. The most recent annual report on each of your funds for pension investors

5. Any spread sheet that your firm requires and provides to outside appraisers for analysis of individual leases.

6. Two sample outside appraisals received for each of two separate owned properties, preferably dated between January 1982 and December 1984, and the in-house review appraisals completed in the interim. (Appraisal materials will be kept confidential and immediately returned after data on appraisal methods is extracted.)

7. A list of firms presently approved by the PREA member for the appraisal of owned real estate assets to clearly define the number of firms engaged in pension fund real estate appraisal. (The list will remain confidential and only a count of firms and individual appraisers will be kept.)

8. Answers to the enclosed questionnaire.

The questionnaire was designed to cover both outside appraisal issues, and in-house appraisal review issues. It is intended to discover what policy is being followed by PREA members with regard to outside appraisal services and in-house reviews. It is designed so that short answers, yes/no, checks or numerical rankings are required. In some questions room has been left for comments. The research team encourages comments from PREA members on all questions.

The study is being conducted by Robert A. Gibson, a Doctoral Candidate under the direction of Dr. James A. Graaskamp of the Department of Real Estate and Urban Land Economics of the Graduate School of Business, University of Wisconsin, Madison, Wisconsin. All data and information supplied by PREA members will be held confidential by the research team. Findings will be reported in aggregate only; no mention of individual properties, asset managers, appraisal firms or individual appraisers will be released by the research team.

If you have any questions please feel free to contact either of us at our campus offices or at home.

Sincerely yours,

Dr. James A. Graaskamp
office--608-262-6378
home --608-238-8452

Sincerely yours,

Robert A. Gibson
608-263-2649
608-274-1217

JAG/RAG/rag

Enclosures

A STUDY OF THE APPRAISALS OF PENSION FUND REAL ESTATE ASSETS

Sponsored by PREA and The Homer Hoyt Institute

BACKGROUND

A procurement policy for the outside appraisal of real estate assets would establish the frequency of outside appraisals, the definition of value to be applied, any segregation of interests to be valued separately, the format of required reporting, the minimum acceptable qualifications of the appraiser, the normal rotation of appraisal reviews by independent appraisers, limitations on the use of certain appraisal methods and assumptions, and the right to audit appraiser files for information and data not otherwise contained in the final report. Logically a procurement policy would be required before defining content in a standard letter of engagement.

1 Concerning the outside appraisal of owned real estate assets does your organization have: (Answer A - for all owned properties, M - for most properties, S - for some properties, N - for no)

a. A written official appraisal policy to be followed that has been approved by your board or investment committee? ______

b. A written appraisal policy that has not been officially approved by your organization? ______

c. A written appraisal policy supplied by the pension sponsor of a segregated account or as a condition of investing in a commingled fund. ______

d. No written policy or guidelines concerning the outside appraisal of real estate assets? ______

If yes, please enclose a copy of the policy with the completed questionnaire.

---

2. In general, how often are owned real estate assets appraised by an outside independent appraisal firm? (Answer A - for all owned properties, M - for most properties, S - for some properties, N - never)

a. More than once a year ______

b. Once a year ______

c. Once every two years ______

d. Less often than every two years ______

e. No specific schedule, it depends on the property ______

f. Other or exceptions (specify) ______

____

____

3. In general, is the outside appraisal required to be: (Check one in each of the three columns)

	FOR THE ORIGINAL APPRAISAL	FOR SUBSEQUENT APPRAISALS BY THE SAME FIRM	FOR SUBSEQUENT APPRAISALS BY A DIFFERENT FIRM
a. A narrative report? (a full prose description)	______	______	______
b. A form report? (a preprinted check list)	______	______	______
c. A letter report? (the asset value with caveats and notes available in the appraisal office)	______	______	______
d. Other? (specify)	______	______	______

____

____

4. Comment on the need for an appraisal report signed by a designated appraiser, such as an MAI, SREA, SRPA or ASA.

a. Always required, fund policy ______

b. Usually required by pension sponsor ______

c. Occasionally required by pension sponsor ______

d. No policy or pension sponsor requirements but have usually used designated appraisers ______

e. No policy or pension sponsor requirements but occasionally use designated appraisers ______

f. Rarely use designated appraiser, and prefer: ______

1. CPA ______
2. CRE Analyst ______
3. Investment Banker ______
4. A firm of Consulting Economists/Land Use Analysts ______
5. An undesignated appraiser ______
6. Other (specify) ______

______

______

5. Do you ever hire an appraisal firm because of its particular specialization in a property type?
☐ YES ☐ NO

Identify the total number properties owned, by property type for all funds managed for pension sponsors and if yes, specify by checking which property type requires a specialization by the appraisal firm.

	NUMBER OWNED OF THIS TYPE	YES, SPECIALIZATION REQUIRED FOR (CHECK)
a. Apartments	______	______
b. Office buildings	______	______
c. Shopping centers	______	______
d. Industrial buildings	______	______
e. Warehouse buildings	______	______
f. Hotel/motels	______	______
g. Mixed use structures	______	______
h. Agricultural land	______	______
i. Speculative acreage	______	______
j. Other (specify)	______	______

______

______

6. Do you have a list of approved appraisal firms? ☐ YES ☐ NO

If yes, please enclose a copy with the completed questionnaire.

7. From the list below, rank the five most important factors, from the most important (1) to the least important (5) in selecting an appraisal firm.

a. A national firm with branch offices and many appraisers for capacity to handle most or all of your work ______
b. A local firm familiar with the market for each property ______
c. A national firm specializing in a specific property type ______
d. The number of designated appraisers in the firm ______
e. A firm that you have worked with in the past ______
f. The cost of the appraisal ______
g. Referral from others ______
h. Other (specify) ______

___ ____

___ ____

8. From the list below, rank the five most important reasons, from the most important (1) to the least important (5), that would lead to cutting an appraisal firm from your approved list or if you do not have an approved list would cause you to change appraisal firms.

a. Failure to meet deadlines ______
b. Errors in facts ______
c. Errors in computations ______
d. Quality of prose exposition ______
e. Failure to use discounted cash flow in the income approach to value ______
f. Failure to disclose full information on comparable sales in the market approach to value ______
g. Unwillingness to accept pro formas supplied by asset manager ______
h. Over restrictive qualifying and limiting conditions ______
i. Variance in values from one year to the next ______
j. An increase in cost ______
k. Quality of photographs and drawings for pension sponsor review ______
l. Other (specify) ______

___ ____

___ ____

BACKGROUND

Real estate assets can be carried on the books and given a single value as a going concern or classified into subsets such as, land, building, furnishings, and amortized values such as, tenant improvements, and financial premiums and then aggregated for each asset type.

9. Is your fund accounting organized by:

a. Individual total project values? ______
b. Project values subclassified as to land, building, personality, etc.? ______
c. Other (specify) ______

___ ____

___ ____

Enclose a copy of your real estate accounting classification manual with the questionnaire.

10. Regardless of how the fund accounting is handled, do you request the outside appraisal firm performing the appraisals to segregate value for any of the following items (A - always, M - most of the time, O - occasionally, N - never)?

a. Land ______
b. Surplus land ______
c. Building/structures ______
d. Working capital ______
e. Personal Property ______
f. Financing package (if transferable) ______
g. Existing leaseholds ______
h. Amortizing assets such as tenant improvements ______
i. Intangible assets ______
j. Other (specify) ______

____

____

BACKGROUND

Definition of fair market value requires definition of the interest to be appraised, such as fee simple unencumbered by existing leases, and most recently requires that the value first be reported as a cash sale and then value can be modified by any increment attributed to financing, structuring and contract rents.

11. Which of the following represents, in terms of a definition of interest to be appraised and definition of value, full disclosure to the investors in your fund?

a. Would you report only the net investment value of a property encumbered by existing leases, benefited by assumable financing and other entitlements, and including personal property, cash reserves, OR ______
b. Would you report fair market value as defined by the Institute, assuming a cash sale and then report the net investment value which could be attributed to assumable financing, existing leases, personal property or intangible assets. ______
c. Do you give the appraiser direction as to the definition of value to be applied and any segregation of interest such as assumable financing, leasehold encumbrances, or non real estate assets to be valued separately. ______

Comment ____

____

____

____

12. Would you think it might be a useful measure of investment performance to provide annual comparisons of market value and investment value to indicate the efficiency with which asset managers are recapturing leasehold values, managing cash assets, and creating value for capital invested in property improvements or deferred expenditures? ☐ YES ☐ NO

Comment ____

____

____

____

BACKGROUND

Auditing procedures require replication, verification, and control of inadvertent bias. Cost efficiency favors annual review by the same appraisal firm, which may provide incentive and opportunity for knowing the property well. On the other hand, periodic change in appraisal assignments provides the opportunity for independent verification, replication, and discovery of bias.

13. How do you determine an appropriate fair price for a first time outside appraisal of an owned real estate asset?
    a. By bid from those firms on your approved list ______
    b. A bench mark per unit (i.e. cents per square foot or $ per room, etc.) ______
    c. A set number of basis points of asset value ______
    d. Other (specify) ______

____

____

14. If the same firm is contracted to perform a follow up outside appraisal, how would you determine an appropriate price?
    a. A percentage of the original appraisal cost ______
    b. A bench mark per unit (i.e. cents per square foot or $ per room, etc.) ______
    c. A set number of basis points of asset value ______
    d. Other (specify) ______

____

____

15. How many different real estate interests did your fund manage for pension sponsors which required periodic outside appraisals in 1984? ____________

16. What was the actual total cost expended by your firm for outside appraisals in 1984? ____________

17. In 1984 how many different appraisal firms did your firm use for outside appraisal services? ____________

18. In general for a given property do you have the same appraisal firm do the outside appraisal each year? ☐ YES ☐ NO

    If yes, do you allow the same appraiser to perform the analysis each year? ☐ YES ☐ NO

    If No:

    a. How often do you change the assignment of appraisal firms to different properties?
        1. Every year ______
        2. Every second year ______
        3. Every third year ______
        4. Less often than every third year ______

    b. Is this policy the same for all properties? ☐ YES ☐ NO

(Question 18 is continued on next page)

If No, Comment ______________________________

____

____

c. Is this policy the same for all pension sponsors who deal with the asset manager for separate accounts or alternative funds? ☐ YES ☐ NO

Comment on any unusual sponsor's requirements for appraisals ______________________________

____

____

d. Are copies of the old appraisal supplied to the next firm? ☐ YES ☐ NO

19. How many different funds that hold real estate interests does your firm manage? ________

	NUMBER OF FUNDS	ASSET VALUE	ASSET MANAGERS GROSS MANAGEMENT FEES - 1984
a. Open end commingled fund	____	____	____
b. Closed fund	____	____	____
c. Segregated account	____	____	____
d. Mortgage fund	____	____	____
e. Joint venture fund	____	____	____
f. Participating or convertible mortgage fund	____	____	____
g. Other (specify)	____	____	____

____

____

If annual reports are available for any of these funds please enclose them with the questionnaire.

20. Of all the real estate assets requiring periodic outside appraisals how many are:

a. Owned free and clear of debt or joint venture interest ____

b. Owned with debt financing but no joint venture interest ____

c. Owned with a joint venture interest but no debt ____

d. Owned with both debt and joint venture interest ____

e. Represent participating or convertible mortgages ____

f. Other (specify) ____

____

____

21. For those properties owned with a joint venture interest is the periodic appraisal contracted for by:

a. The joint venture partner providing a periodic independent appraisal as a responsibility of the managing partner? ☐ YES ☐ NO

b. The asset manager contracting for an outside appraisal of the underlying real estate asset? ☐ YES ☐ NO

c. The asset manager converts real estate values according to the profit distribution formula to assign a value in-house to the joint venture interest of the fund? ☐ YES ☐ NO

d. Does the fund have a policy for booking values created by development, new leases, or funding of capital losses before or after the fact as adjustments to the appraisal? ☐ YES ☐ NO

e. Other (specify) ☐ YES ☐ NO

____

____

22. For those properties that are participating or convertible mortgages, is the policy for valuation:

a. To be carried at book value ☐ YES ☐ NO

b. Is book value adjusted periodically to reflect participating interest in the appraised value of the underlying real estate ☐ YES ☐ NO

c. Is revalued periodically based on appraised value of the underlying real estate ☐ YES ☐ NO

e. Other (specify) ☐ YES ☐ NO

____

____

BACKGROUND

In an 'Exposure Draft on the Proposed Guide on the Use of Real Estate Appraisal Information' by the Committee on Real Estate Accounting, Accounting Standards Division of the American Institute of Certified Public Accountants, it is stated that "the appraiser should not have a relationship that would affect his objectivity toward the entity being audited or the property being appraised. The appraiser's objectivity may be affected by any of these conditions:

1. He has a direct or indirect material financial interest in the entity or in its real estate assets.
2. His fee is contingent or based on his valuation conclusions.
3. The type and extent of other services he performs for the entity are significant."

23. Do you have a dollar limit to the amount of fees any one appraisal firm can earn on an annual basis performing outside appraisals for your firm?

a. There are no limits set ______

b. There is a fixed dollar limit ______

c. There is a limit set in terms of the number of properties any one firm can appraise each year ______

d. The limit is set at a percentage of the appraisal firm's gross annual billings ______

e. Other (specify) ______

____

____

24. A critical assumption is the percentage increase in rent that occurs when a lease is renewed or rolled over when values are based on discounted cash flow over time.

a. Do you supply the appraiser with an acceptable range of inflation adjustments, such as 4-5 percent ☐ YES ☐ NO

b. Is the appraiser entitled to set their own percentage of adjustment ☐ YES ☐ NO

If yes, what justification must he provide ______________________________

____

____

c. Would you prefer the English method of rolling leases at the market rent for the date of the appraisal without anticipation of future inflation to eliminate bias in both revenues and resale price (the captialization rate or discount rate may reflect attitudes about future inflation)? ☐ YES ☐ NO

25. A second critical assumption in the use of discounted cash flow is the anticipated resale price of the property at the end of the projection period. Do you supply the appraiser a suggested gross income multiplier, net income multiplier or some other formula to establish a resale price assumption? ☐ YES ☐ NO

26. Do you put any limits on the appraiser as to what methods, techniques or procedures can and cannot be used? ☐ YES ☐ NO

If yes, please specify if these are not included in your letter of engagement ______________

____

____

27. Do you limit the types of qualifying and limiting conditions specified by the appraiser in the appraisal report? ☐ YES ☐ NO

If yes, please specify if these are not included in your letter of engagement ______________

____

____

28. Have you ever or do you specifically reserve the right to audit appraiser files for information used but not included in the appraisal report? ☐ YES ☐ NO

29. Do you require the appraiser to specify price, terms and conditions of sale and explicitly define and identify comparables on the market comparison approach to value? (Appraisers may prefer to provide a general description and reference their own files in the name of confidentiality.) ☐ YES ☐ NO

Comment: ____

____

____

BACKGROUND

Appraisal of income properties requires agreement on the definition of income in terms of the accounting rules for cash and accrual treatment of both capital and operating outlays, as well as, tying of receipts and outlays under the lease terms, the evaluation of the brick and mortar, the economic characteristics of the structure, location, legal contracts, and the accounting systems used.

30. Does the appraiser have freedom of access to any of the following architectural, engineering or legal information? (Answer A - always, M - most of the time, S - some of the time, N - never)

    a. Architectural review ______
    b. Structural engineering audits ______
    c. Energy audits ______
    d. Thermography studies ______
    e. Legal counsel paid for by asset manager for interpretation of encumbrances on the fee, lease terms, or other finance contracts ______

31. For the following, who provides the appraiser with the data? (Answer A - all the time, M - most of the time, S - some of the time, N - never)

	PROPERTY MANAGEMENT FIRM	ASSET MANAGEMENT FIRM	CPA WHO PERFORMS AUDITS	NOT PROVIDED
a. Gross revenue	______	______	______	______
b. Operating expenses	______	______	______	______
c. BTU usage	______	______	______	______
d. Kilowatt hour usage	______	______	______	______
e. Reimbursables collected	______	______	______	______
f. Tenant improvements to be amortized	______	______	______	______
g. Leasing commissions to be amortized	______	______	______	______
h. Leasing commissions payable	______	______	______	______
i. Delinquencies in rent	______	______	______	______
j. Space rented but not occupied	______	______	______	______
k. Common area maintenance charges	______	______	______	______
l. Reimbursements collected relative to potential	______	______	______	______
m. Non real estate income from sale of utilities, janitorial services, etc.	______	______	______	______

32. The accounting for real estate is attempting to emphasize and improve consistency with accrual accounting, while investment cash flow models and income tax philosophies prefer to use cash accounting. Some appraisers tend to unilaterally combine cash and accrual accounting. Does your organization attempt to control these potential conflicts in your procurement of appraisals?

    ☐ YES ☐ NO

    If yes, How? ______________________________

33. Is the appraiser supplied with a prepared cash flow statement or computerized cash flow model capable of dealing with individual leases and terms and providing a spread sheet rent roll?

a. We provide a specific spread sheet format the appraiser is to follow ______

b. Each of our appraisers are permitted to use their own spread sheet approach but must address individual lease terms ______

c. We do not specify that individual lease terms must be analyzed ______

If you supply the spread sheet, please supply an example.

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34. Does your public accounting firm review the finished appraisal report for reasonableness of financial projections? (A - all the time, M - most of the time, S - some of the time, or N - never?) ______

35. Do you have an appraisal review process with which to challenge the appraiser's assumptions and methodology? ☐ YES ☐ NO

If yes, who is responsible for the review?

a. The property/asset manager ☐ YES ☐ NO

b. The sponsor's account manager ☐ YES ☐ NO

c. The investment committee, if issues are brought to their attention ☐ YES ☐ NO

d. Other (specify) ☐ YES ☐ NO

______

______

36. Is there some other administrative process for appraisal review to maintain objectivity? ☐ YES ☐ NO

Comment ______

______

______

BACKGROUND

Any explicit appraisal policy for the outside appraisal of real estate assets would manifest itself in the letter of engagement to the selected firm.

37. Do you have a standard letter of engagement used for outside appraisals of owned real estate assets? ☐ YES ☐ NO

If No, please comment on your procedures for review and control of the appraisal product ______

______

______

If yes, please enclose a copy with the completed questionnaire.

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38. Do you ever use a letter of engagement provided by an appraisal firm(s)? ☐ YES ☐ NO

If yes, please enclose copies with the completed questionnaire.

39. Do you ever use a letter of engagement provided by a pension sponsor(s)? ☐ YES ☐ NO

If yes, please enclose copies with the completed questionnaire.

40. Do you believe PREA could establish consistency in the valuation of owned real estate assets by establishing a protocol for appraisal policy and minimum provisions for a letter of engagement to be implemented by each member of PREA? ☐ YES ☐ NO

Comment: ______________________________

41. If PREA did supply minimum provisions for a letter of engagement would your firm be inclined to use it? (Answer A - always, M - most of the time, S - sometimes, N - never) ______

Comment: ______________________________

BACKGROUND

A policy for an in-house appraisal or appraisal review would establish the frequency of the review, the format of required reporting, the normal rotation of in-house staff in the review process and the procedure for the review and potential change in value.

42. Who performs the in-house appraisal review?

a. An in-house staff appraiser(s) ______

b. The account manager ______

c. A committee made up of: ______________________________

d. Other (specify) ______

43. Who has the responsibility to change a property value and thus the share value of the fund?

a. The chief officer of the asset management firm ______

b. The investment committee ______

c. The account manager ______

d. Other (specify) ______

____

____

44. Concerning the in-house appraisal review of owned real estate assets does your organization have: (A - all owned properties, M - for most properties, S - for some properties, or N - for no)

a. A written official appraisal policy to be followed that has been approved by your board or investment committee? ______

b. A written appraisal policy that has not been officially approved by your organization? ______

c. A written appraisal policy supplied by the pension sponsor of a segregated account or as a condition of investing in a commingled fund. ______

d. No written policy or guidelines concerning the in-house appraisal of real estate assets? ______

If yes, please enclose a copy of the guidelines or policy with the completed questionnaire.

---

45. How often are in-house appraisals conducted for the purpose of adjusting asset values, if appropriate?

☐ a. Once a quarter
☐ b. Once a year
☐ c. Once every two years
☐ d. Less often than once every two years
☐ e. No specific schedule, it depends on the property

46. In general does the in-house appraisal require?

☐ a. On-site inspection of the property
☐ b. Only in-house review of the income data
☐ c. Other (specify) ________________________________

____

____

47. Is the in-house appraisal required to be?

☐ a. A narrative report (a full prose description)
☐ b. A form report (a preprinted check list)
☐ c. Memorandum for the file
☐ d. Minutes of the appraisal committee meeting
☐ e. Other (specify) ________________________________

____

____

48. What percentage of those involved in the in-house appraisal review have a professional appraisal designation? ______

49. How does the in-house review appraiser treat capital expenditures that modify the property?

☐ a. Tenant improvements are included in income value and amortized in expenses

☐ b. Expenditures only appear to the degree that they modify net operating income in excess of amortization of the expenditure

☐ c. Capital expenditures are added to the former appraised value and carried forward to the next independent appraisal

☐ d. Other (specify) ______

______

______

50. What percentage differential on a quarterly basis between outside appraised value and in-house appraised value is required to trigger a change in the fund value?

a. Percentage change required to raise value ______

b. Percentage change required to lower value ______

c. No percentage specified, rather on a property by property basis ______

Comment ______

______

______

51. Do you have any decision rules under which the following occurences would possibly change an asset's value and thus the fund value? (Answer R - the rule is part of our policy statement, S - by subjective judgement, N - no likely change in value)

a. Lease cancellation ______

b. Change in the occupancy percentage ______

c. An announcement of significant competition going under construction ______

d. A natural castrophe ______

e. Physical impairment of building ______

f. Other (specify) ______

______

______

BACKGROUND

The appraisal process is a sensitive issue because unit values are precise for sale or liquidation of units in any quarter. The inequities of appraisal error might be mitigated through administrative modification of the unit pricing and liquidation process.

52. Insurance companies maintain a real estate asset valuation reserve to absorb fluctuations in investment values. Would it be best for commingled funds to maintain an asset valuation reserve which would be deducted from unit values cashed out and added to the purchase price of new unit value investments to equalize the equity risk for valuation variance for those investing and those withdrawing from an open ended fund? ☐ YES ☐ NO

    Comment ______

53. Requests for withdrawal of unit funds or investment of additional funds could be automatically prorated over five periodic valuation dates to smooth variance attributable to mixing in-house and outside appraisals. Do you believe such a process would reduce the current pressure on the appraisal element for open end fund values? ☐ YES ☐ NO

    Comment ______

BACKGROUND

Each PREA member is asked to include with the completed questionnaire two outside appraisals and the intervening in-house appraisals on two properties. The outside appraisals should be completed at least one year apart and both completed between January of 1982 and December of 1984. If possible the properties selected should be different types (apartments, office buildings, shopping centers, industrial, hotel, etc.) and be conducted by a different appraisal firm. These appraisals will be used to study the techniques, procedures and methods currently in use by the appraisal profession. All information, data, policy statements, letters and appraisals received for this study will be kept in the strictest confidence. The results will be reported in aggregate only and will not reference any specific property, asset manager, appraisal firm or individual appraiser. Appraisals will be returned to the asset manager as soon as data is extracted.

NAME OF FIRM ______

PERSON TO CONTACT REGARDING STUDY ______

TITLE ______

ADDRESS ______

______

PHONE NUMBER ______

CHECK LIST

ENCLOSED		NOT ENCLOSED WE DO NOT HAVE OR USE
[ ]	Appraisal policy for outside appraisals	[ ]
[ ]	Appraisal policy for in-house appraisal review	[ ]
[ ]	Letter of engagement developed by your firm	[ ]
[ ]	Letter of engagement supplied by appraisal firm	[ ]
[ ]	Letter of engagement supplied by pension sponsor	[ ]
[ ]	Approved list of appraisal firms	[ ]
[ ]	Real estate accounting classification manual	[ ]
[ ]	Annual report for funds managed	[ ]
[ ]	Spread sheet supplied to appraiser	[ ]
[ ]	Four appraisals, two each on two properties	
[ ]	The completed questionnaire	

THE UNIVERSITY OF WISCONSIN RESEARCH TEAM AND PREA'S RESEARCH COMMITTEE THANK YOU FOR YOUR COOPERATION