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Portfolio analysis cont'd

portfolio analysis and management and those using them primarily for analysis of a specific investment decision. The emphasis of the user likely will be different if the question is one of overall portfolio allocation or one of deciding between two specific acquisition alternatives. But the question does seem to be, "How will we use this approach?" rather than, "Will it be used?"

In conclusion, managers and investors alike must address the challenge of strategy implementation and execution. Real estate is not like stocks and bonds. Should a stock manager decide to change investment strategy, he only needs to call the tracting desk. With real estate, however, no central clearing-house for properties exists. The manager must have the capability to execute the strategy.

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Equity real estate

by Harry D. Pierandri and Thomas J. Fitzgerald

Life insurance companies and pension funds are both in the business of building and preserving personal wealth. To this end, equity real estate has become an important part of their investment profiles. Real estate has been widely accepted as an asset class by mainstream institutional investors. However, real estate investment managers are still placed in the position of explaining what makes equity real estate different from other vehicles, how and why it performs well under various inflation scenarios, and the validity of appraisal-based real estate return components.

Equity real estate now constitutes approximately 4.9% of pension assets, and current projections call for this to increase to 6.3% by 1991. (Source: Greenwich Associates) Many larger corporate and public funds already have invested as much as 10% or more of their assets in it. With life insurance companies, equity real estate currently stands at approximately $37 billion, about 3.2% percent of their total assets. Additionally, this represents approximately 30% of the total money in equity real estate from financial institutions, the other two being commercial banks and savings and loan institutions. (Source: The Roulac Consulting Group of Deloitte, Haskins and Sells)

The industry standard, the FRC Property Index, shows equity real estate returns compare quite favorably to those of other asset classes:

Indeed, if one looks closely at the investment characteristics of equity real estate, the question is perhaps not why it has gained favor so quickly but why it took so long. Real estate has constituted the primary source of wealth around the world throughout most of history. In fact, it got its name because most lands belonged originally to a monarch, and "real" comes from the same Latin root as "royal."

Insurance companies have been investing in real estate since the 1800s. In the beginning and throughout most of this century, real estate was a static, put-and-take matter. Long-term mortgage loans were made at fixed rates. A property was appraised, and if underwriting criteria were met (loan to value ratios, debt service coverage), money was tied up for 25 or 30 years at a level rate of return. But in a strictly lending role, the mortgage bears a substantial part of the investment risk but not the accompanying upside potential. If the loan defaults, the company forecloses and has a property on its hands. As is the case with most debt instruments, if the property is a winner, the lender doesn't share in the winnings.

In the mid-1970s, major insurers like Equitable and Prudential began moving from strictly mortgage lending to acquiring and developing properties, either alone or with an equity joint venture partner/developer. At roughly

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For periods ending 12/31/88

	10 years	5 years	1 year
FRC Property Index	11.9%	8.3%	7.1%
S&P 500	16.3	15.4	16.6
Salomon Bros. High-Grade Corp. Bond Index	10.9	15.0	10.7
90-Day Treasury Bills	9.4	7.3	6.8
Consumer Price Index	5.9	3.5	4.4

Note: Returns are a combination of income and appreciation components. The FRC Property Index is composed of a universe of open-end equity real estate funds. These funds, which represent a broad range of property types and geographic locations, are considered excellent industry bellwethers.

60th anniversary for actuarial club

The Actuarial Club of the Pacific States will mark its 60th anniversary September 14-16 at the Four Seasons Biltmore Hotel in Santa Barbara. Enrolled actuary credit will be offered at the meeting. For further information, contact John Edwards at 818-577-1144.

Equity real estate cont'd

the same time, the effects of ERISA began to be felt, and fiduciaries began the mandated diversification process, with equity real estate as a prime vehicle for achieving this goal.

In addition, the high inflation and investment market volatility of the 1970s had made it clear to pension fund managers that stocks could not be relied on as the sole means of participating in economic growth. As stated in "Our Expanding Universe: The Case for Pension Fund Investment in Property,"[1] real estate provides the needed alternative – an equity investment with its own unique characteristics, distinct from stocks. Among these are:

- Each property, by virtue of its location, characteristics and tenancy, is unique in many respects. This is a fundamental difference from the securities world where each share of a company's stock is exactly the same.
- Rents on commercial properties are more difficult for the government to regulate than wages and prices. Even when the government imposed wage and price controls in the past, these have generally not applied to rents on commercial buildings.
- Even following a sharp decline in income, a corporation would not normally reduce its space requirements if it believes the decline is temporary. Barring widespread bankruptcy among tenants, income streams for a fully leased property can be projected with a fairly high degree of confidence.
- Supply and demand dimensions in real estate have a long time frame. When a tight market develops, several years will be needed for developers to alleviate the situation. Conversely, if many developers include expectation of demand that does not occur, properties can be slow in leasing.

By nature, property is immobile. For example, scarcity in Los Angeles cannot be met by surplus in Denver.

- The cash flow from real estate to a tax-exempt pension fund is not reduced by income tax. However, a corporation is a taxable entity, and the income tax it pays cannot be recovered by stockholders, not even tax-exempt pension funds.
- A property's investment performance can be significantly affected by the investment manager, who can enhance its operations. A financial asset performs the same way for everyone.

Thus, real estate and stocks are essentially different and have different cyclical behaviors. Adding property to an investment universe provides fundamental diversification.

Disputing the inflation myth

Real estate investment fiduciaries are often faced with the persistent notion that, despite a record of competitive returns, real estate's "hard asset" characteristics work only during periods of high inflation. However, a study undertaken by Equitable Real Estate[2] in the mid-1980s disputes this contention.

Using as a model a Class A downtown office building in a major market, 10-year rates of return were calculated under three inflation scenarios including disinflation (3.1%), constant (6.0%) and hyperinflation (9.4%). As expected, hyperinflation created the highest nominal rate of return at 15.4%, but disinflation actually encouraged the largest real investment growth of 10.8%, almost doubling the hyperinflation return of 6.0%.

Rates of Return

Inflation	Real Rate	Nominal Rate
Disinflation (3.1%)	10.8%	13.9%
Constant (6.0%)	8.3	14.3
Hyperinflation (9.4%)	6.0	15.4

Ideally, leases are designed to protect against inflation, as with rent increases keyed to the CPI, or with relatively short terms that can be renegotiated to take advantage of strong market demand. In a hyperinflation environment, rents, which have to be fixed for some period, will almost invariably lag behind skyrocketing prices. Therefore, real returns are lowest. Under the disinflation scenario, the opposite is true as locked-in rents maintain the income forecast in the face of price rises that are slower than expected.

Due to the lack of a ready market in which property investments can be traded and priced instantly, the appreciation component of real estate returns is usually figured through appraisal. According to Ibbotson and Siegel[3], use of the three establish appraisal methods – income capitalization, replacement cost and sales of comparative properties – helps smooth returns, or reduce the apparent standard deviation. Each method employs a different data. Income capitalization involves completing ten-year cash flow projections and lease-by-lease analysis, and applying a discount rate to assign a present-day dollar value to this income stream. Replacement cost seeks to establish what current costs would be to replace the property. Comparative sales investigates what comparable property is commanding in the same or a similar market.

Despite this smoothing effect and the basic soundness of the appraisal process, some investors believe in developing new ways to compare real estate returns to those of other asset classes. One novel idea was developed by David Shulman of Salomon Bros.,[4] who suggested that publicly traded companies' reported earnings could be capitalized at a market rate and then compared to appraisal-based real estate returns. For the sake of comparability, however, investors would be resistant to the idea of giving up the transaction prices they had in stocks and bonds.

Many suggest that a transactions-driven system of valuing properties should be developed to augment the current system. A report by Mike Miles of the University of North Carolina at Chapel Hill[5] describes one approach:

> *"The methodology employed consists of estimating the value of different characteristics of a sample of sold properties, adjusting these estimated values by an amount consistent with the effect that the various characteristics have on the probability that a property will be sold, and then applying these adjusted values to the characteristics of a sample of unsold properties."*

After conducting his study, Miles concluded, "While the risk-adjusted real estate returns are still attractive in a portfolio setting, they are not as unbelievably attractive as appraisal-based returns had previously made them appear."

In conclusion, real estate investments by institutions, particularly pension funds, have come under intense scrutiny over the past quarter-century and have proven themselves under a variety of market environments. Equity real estate is an investment unique unto itself. It is an equity investment that allows partici-

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Equity real estate cont'd

pation in economic growth while esponding to different market forces other than common stocks. And despite its ability to provide an inflation hedge, its real return is proven to be strong in both periods of stable prices and disinflation.

It should be noted that during periods of high interest rates and increasing inflation, real estate is the only investment in insurance company portfolios that increases in value. Fixed-rate mortgages and bonds, on the other hand, lose value because of their below-market rates of return.

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4. Shulman, David. "The Relative Risk of Equity Real Estate and Common Stock: A New View." Salomon Bros., June 30, 1986.
5. Miles, Mike. "Real Estate as an Asset Class: A 25-Year Perspective." Salomon Bros., January 1989.

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U.S. National Center for Health Statistics to hold conference in July

The Public Health Conference on Records and Statistics will be held July 17-19 in Washington, D.C. It will focus on health statistics related to promotion and prevention, surveillance and epidemiology, and targeting services. A special session will discuss marriage and divorce statistics. For further information, contact Nancy G. Hamilton, OPEP, PHCRS, National Center for Health Statistics, 3700 East-est Highway, Room 2-12, Hyattsville, aryland 20782, (301-436-7122). There is no registration fee. Although the registration deadline was originally June 9, Ms. Hamilton has told us that admission after that date is possible.

Book review

Southwestern saga follows Texas actuaries

by E.J. Moorhead

On the Trail of Actuaries in Texas, 1844-1964, by Annie N. and Lloyd K. Friedman, pp. 216, Watercress Press, 1988.

In the fall of 1983, the Actuaries' Club of the Southwest set an example that other clubs and writers would do well to follow. Its president, Edwin E. Hightower, proposed as one of its projects a "history of the Club and actuarial practices in the Southwest." The hour produced not just the man but the married couple – Lloyd K. Friedman and his wife, Annie. Would that other laborers in the historical vineyard could be half as fortunate! These authors, with the acknowledged aid of other enthusiasts, required fewer than five years to produce a thoroughly entertaining and informative, even inspiring, volume.

The book is in three chronological parts of four chapters each, ending with an epilogue and three appendices descriptive of the 1949 foundation of the sponsoring club. The volume's frontispiece portrays the two actuaries whose impacts upon the profession's maturing in the Southwest were exceptional – Lawrence M. Cathles (1877-1958), an immigrant from Scotland, and Texas-born Paul V. Montgomery (1886-1980).

Annie and Lloyd made extensive use of taped interviews, some of them giving the words of widows of the actuaries concerned. They also dug deeply into documentary accounts for the biographies. Readers are thus favored with an appreciation of the activities, mind-sets and eccentricities of more actuaries than most outsiders would have guessed contributed to the significance and reputation of our profession in Texas. More than 60 men and women received greater than passing mention.

Readers should feel even further indebted to the Friedmans for devoting 10 pages to a charming O. Henry story about the chivalry of Luke Coonrod Standifer, Texas Commissioner of Insurance, Statistics, and History in the 1880s. This is icing on the cake.

The North American actuarial profession, although rightly considering itself one of the learned societies, has a sadly spotty record when it comes to putting on paper the story of its own heritage. The founders of the Actuarial Society of America in 1889 behaved almost as though no profession existed before their time; a few personal reminiscences and trade paper news items are all that we have today about 80 years of struggle and experimentation. And the Actuarial Society placed a low valuation upon its library; sporadic appropriations to buy books were voted, but in general the quantity now in the shelves is far less than it should be, especially considering the vigor for many years of the book review sections of actuarial journals.

Curiously, the Friedman's book is not for sale. The largest supply of copies sits at the *Yearbook* address of Jack A. Rollier. Requests accompanied by a check for $15 per copy payable to the Actuaries' Club of the Southwest to help cover publication costs will be cheerfully received. If a desire for good reading about the profession prevails among today's actuaries, Rollier's supply surely will be quickly exhausted.

E. J. Moorhead, a former SOA President, is the author of the new book, *Our Yesterdays: the History of the Actuarial Profession in North America.*

Study materials for SOA exams

Study manuals and textbooks for the November 1989 SOA exams are available from Actuarial Study Materials. For a complete list, write to A.S.M., P.O. Box 522, Merrick, NY 11566.

Mail alert

Second Ballots for the Society's 1989 elections will be mailed to all Fellows July 18. Ballots must be returned to the Society office by August 18.