

Defined Contribution Pension Plans:
Can the Real Estate Industry Tap this Growing Pool of Capital?

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

Master of Science in Real Estate Development

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ABSTRACT

This thesis explores the growth of defined contribution pension plans and the prospect of the real estate industry tapping this pool of capital. Research revealed that defined contribution plans are the fastest growing pool of capital in the U.S. capital market. However, these plans are less than one percent invested in real estate. Several arguments for including both public real estate investment trusts (REITs) and private real estate investments in a well-diversified portfolio were examined. These arguments suggest that there is significant potential for defined contribution plans to invest in real estate.

Next, the regulation of defined contribution pension plans was examined. Research showed that, within certain restrictions, defined contribution plans may invest in public and private real estate and real estate securities. A survey of plan sponsors and investment advisors was conducted in order to gauge the demand for public and private real estate by defined contribution pension plans. This survey revealed mixed interest for real estate at present but suggested that demand may grow in the near future. In addition, this survey revealed that in order for investment products to successfully attract defined contribution plan capital, those products must be liquid, easy to administer, and easy to understand. Three model real estate products that seek to meet the criteria of the defined contribution plan market are presented. These models represent variations on mutual funds, insurance company separate accounts, and synthetic guaranteed investment contracts.

Finally, the manner in which real estate must be marketed to defined contribution plans was examined. Research showed that real estate should primarily be marketed as an imbedded portion of a balanced fund or life-style fund. A conclusion is drawn that new alliances between investment advisors may be necessary in order to successfully create and market real estate to defined contribution plans.

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PREFACE

The pension fund industry in the United States is undergoing a transition from traditional, defined benefit (DB) plans to newer, defined contribution (DC) plans. This transition has important implications for the real estate industry. While defined benefit plans have been one of the largest sources of capital for real estate, defined contribution plans often have very different investment criteria and must be marketed to in fundamentally different ways. This thesis will explore the shift from defined benefit to defined contribution plans and examine ways in which the real estate industry can tap this growing pool of capital.

In Chapter One we will explore the growth of defined contribution plans relative to both defined benefit plans and the institutional capital market as a whole. We will also examine the present level of real estate investment by these plans as well as certain trends in the defined contribution market that may effect future investment allocations.

In Chapter Two we will examine the role of real estate, both public and private, in a well-diversified portfolio. Several studies which advise including both public and private real estate in an institutional portfolio will be examined and an argument for the applicability of these studies to defined contribution plan portfolios will be advanced.

In Chapter Three we will explore the legal ability of defined contribution plans to invest in real estate and real estate securities.

In Chapter Four we will present the results of a survey that we conducted of plan sponsors and investment advisors. We will profile the demand for real estate (both public and private) by defined contribution plans and suggest the specific characteristics that real estate investment products must have in order to successfully attract defined contribution plan capital.

In Chapter Five we will present three models of real estate investment products that seek to meet the specific demands of defined contribution plans. We will explore how these real estate investment products should be structured and suggest that new alliances between investment advisors may be necessary in order to successfully create and market real estate to defined contribution plans.

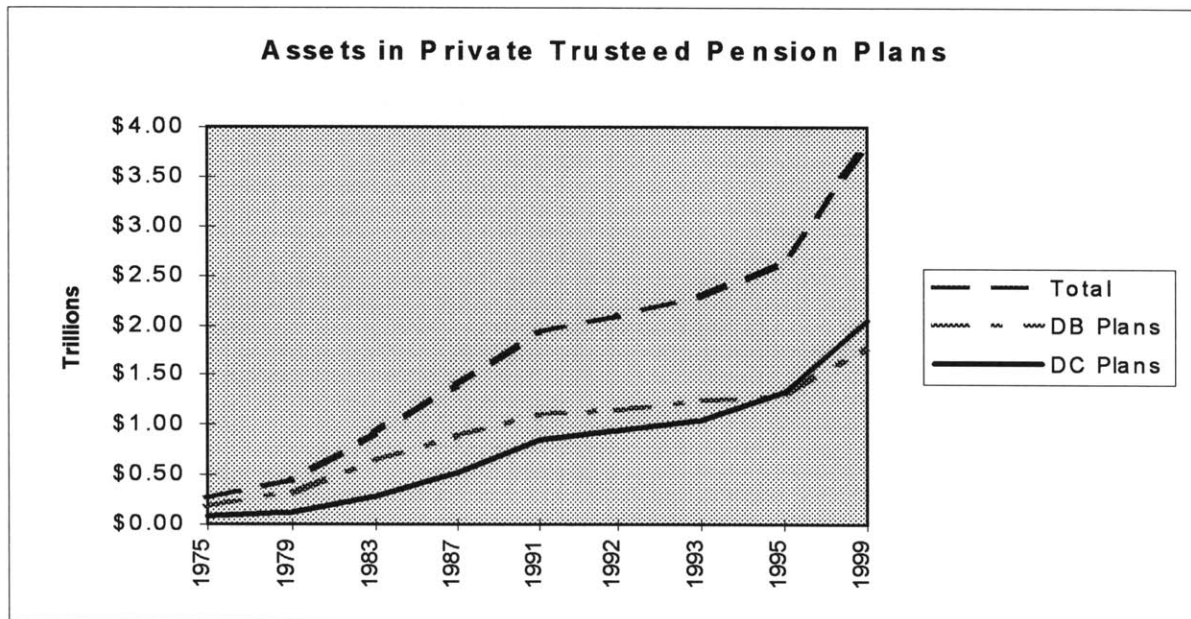
In Chapter Six we will summarize our findings and conclude that the real estate industry must recognize that U.S. pension funds are undergoing a fundamental shift from defined benefit to defined contribution plans and that investment products traditionally sought by defined benefit plans fail to meet the specific demands of the defined contribution plan market. Yet, we believe that the real estate industry *has* the ability to tap into defined contribution capital through publicly traded REITs and through new and innovative private real estate investment vehicles. Looking forward, therefore, we believe that opportunities exist in the defined contribution market for savvy real estate advisors and innovators.

CHAPTER ONE: DEFINED CONTRIBUTION PLANS -- A NEW FORCE IN THE U.S. INSTITUTIONAL CAPITAL MARKETS

Introduction

In 1995 an important milestone in the evolution of America's private retirement system was reached: Assets held in trust under single-employer defined contribution (DC)retirement plans exceeded those of defined benefit (DB) plans for the first time. (See Exhibit 1). Though this statistic only includes private pension plans, private plans are by far the largest and fastest growing type of pension plans.

Exhibit 1



As of year-end 1995, total private trusteed pension plans (excluding privately insured plans) had an estimated \$2.625 trillion in assets (See Exhibit 2). Of this amount, 50.5% were held by defined contribution plans, with the balance being held by defined benefit plans. Current projections by

Bernstein Research call for defined contribution plan assets to increase from \$1.325 trillion to \$2.050 trillion by year-end 1999, or an annual increase of approximately 11.53%. Defined benefit plans, however, are only expected to grow by about 8.4% per year over this period. This growth in defined contribution plans is all the more impressive considering that a decade ago, defined benefit plans had twice the assets of defined contribution plans. The growth of defined contribution plans has surged with increased acceptance by plan sponsors, more liberal eligibility requirements, accelerated vesting, and rising participation rates.¹ This shift is not a direct transfer of participants from defined benefit to defined contribution plans. Rather, industries that traditionally offered defined benefit plans are declining in importance, and smaller businesses in emerging industries have tended to adopt 401(k) and other defined contribution plans.

Exhibit 2

Assets in Private Trusteed Pension Plan (Strillions)					
Year	Total	Defined Benefit	%	Defined Contribution	%
1975	\$.259	\$.185	71.5%	\$.074	28.5%
1979	.445	.319	71.7%	.125	28.3%
1983	.923	.642	69.6%	.281	30.4%
1987	1.402	.877	62.6%	.525	37.4%
1991	1.936	1.101	56.9%	.834	43.1%
1992	2.094	1.146	54.8%	.947	45.2%
1993	2.295	1.245	54.2%	1.050	45.8%
1995 (1)	2.625	1.300	49.5%	1.325	50.5%
1999 (1)	3.845	1.795	46.7%	2.050	53.3%

Source: U.S. Department of Labor; Pension and Welfare Benefits Administration, Winter 1996. (excluding privately insured plans).

Note (1) Figures for 1995 and 1999 are from Bernstein Research.

The magnitude of the growth in defined contribution plans relative to defined benefit plans is more apparent by examining the number of active participants in the two plan types. (See Exhibit 3).

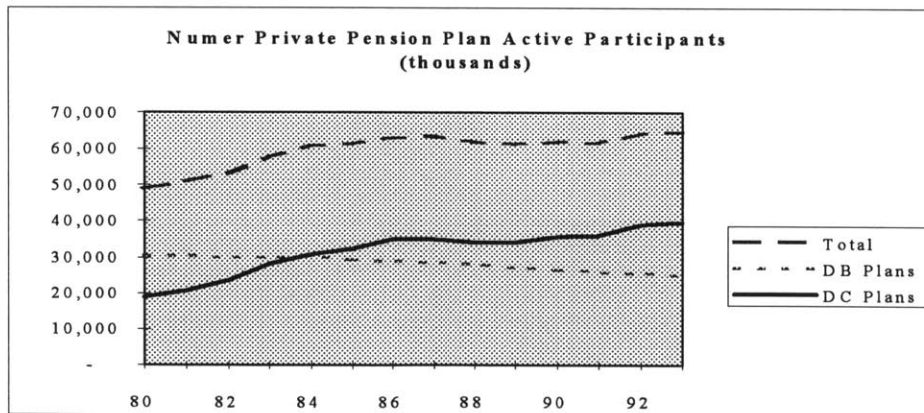
¹ Bernstein Research, "The Future of Money Management in America," 1995

This data shows that the number of defined contribution plan participants exceeded that of defined benefit plans back in 1984 and, as of year-end 1993, defined contribution plans accounted for roughly 61% of all private pension plan participants. The data also shows a slow but gradual decline in the number of defined benefit plan participants.

Exhibit 3

Number of Active Participants in Private Pension Plans					
Year	Total	Defined Benefit	%	Defined Contribution	%
1980	49,026	30,133	61.5%	18,893	38.5%
1981	50,825	30,082	59.2%	20,743	40.8%
1982	53,204	29,756	55.9%	23,448	44.1%
1983	57,808	29,964	51.8%	27,844	48.2%
1984	60,775	30,172	49.6%	30,603	50.4%
1985	61,268	29,024	47.4%	32,244	52.6%
1986	63,290	28,670	45.3%	34,620	54.7%
1987	63,391	28,432	44.9%	34,959	55.1%
1988	62,143	28,081	45.2%	34,062	54.8%
1989	61,294	27,304	44.5%	33,990	55.5%
1990	61,832	26,344	42.6%	35,488	57.4%
1991	61,518	25,747	41.9%	35,771	58.1%
1992	64,230	25,362	39.5%	38,868	60.5%
1993	64,683	24,964	38.6%	39,719	61.4%

Source: U.S. Department of Labor, Pension and Welfare Benefits Administration, 1995



Pension Funds and the Institutional Capital Market

In this section we assess the importance of the defined contribution plan market relative to the overall U.S. institutional capital market. The U.S. institutional capital market² was estimated at \$10 trillion as of year-end 1995.³ Pension funds constitute the largest percentage of the U.S. institutional capital market. As of year-end 1995, pension funds had a combined asset base of \$5.253 trillion. (See Exhibit 4). Of this amount, \$2.625 trillion was held by private pension funds (including multi-employer plans), state and local plans held \$1.290 trillion, private insured assets represented \$.938 trillion, and federal pension plans held \$.40 trillion.

Exhibit 4

Composition of U.S. Institutional Capital Market January 1996	
Defined Benefit Plans	\$ 1.300
Defined Contribution Plans	1.325
Total Private Trusteed Pension Assets	2.625
Privately Insured Pension Assets	0.938
State and Local Pension Plans	1.290
Federal Government Plans	0.400
Total U.S. Pension Plan Assets	\$ 5.253
Amounts in \$trillions of dollars	
Source: Bernstein Research, 1996	

The passing of the Employee Retirement Income Security Act of 1974 (ERISA) marked a significant change in the way traditional pension funds allocated investments among various asset classes. ERISA called for more diversification of pension plan investments – beyond typical

² This is broadly defined to include pension funds, insurance companies, mutual funds, commercial banks and thrifts, public real estate investment trusts (REITs) and real estate operating companies, private REITs, mortgage conduits, mortgage-backed securities (MBS) and commercial mortgaged-backed securities (CMBS), and public and private real estate syndication's. See Pagliari, Joseph L., "The Handbook of Real Estate Portfolio Management," Chapter 1, 1995, Irwin.

³ Blake Eagle, Chairman for the Massachusetts Institute of Technology Center for Real Estate.

investments in stocks and fixed-income securities. Most pension fund consultants, following the objectives of ERISA, have recommended allocations to real estate ranging from 5% to 15%.⁴ Greenwich Associates estimates the total defined benefit pension fund allocation to real estate was approximately 4.5% as of year-end 1995.

This 4.5% allocation by defined benefit plans has accounted for 95% of all pension fund real estate investment activity. The trend towards defined contribution plans, therefore, will have a profound impact on the way real estate is held in the future. Defined contribution plans tend to require much higher liquidity than do defined benefit plans. The primary reason for such liquidity requirements is that defined contribution plans are largely participant directed, meaning that each participant (of which there are over 40 million) can make asset allocation decisions on a periodic basis. In addition, there is a current trend in the defined contribution industry toward daily pricing and the ability to trade out of investments daily. This trend increases the liquidity required of assets in these plans.

Defined Contribution Plans Defined

Employer-sponsored pension plans follow one of two basic designs: defined benefit plans and defined contribution plans. In a defined benefit plan, pension benefits are typically derived from a formula based on a retiree's final average pay and years worked. The plan sponsors typically insure the plan participant that retirement benefits will be paid on a monthly basis from the date of retirement for the rest of the retiree's life. Defined contribution plans are more like tax-advantaged savings accounts in which money is invested by an employee (and often matched to some percentage by an employer) on a pre-tax basis. Unlike defined benefit plans, defined contribution plans do not guaranty a certain percentage of an employee's wage upon retirement. Defined contribution plans include 401(k), deferred compensation, employee thrift plans, and

⁴ Pagliari, Joseph Jr., "The Handbook of Real Estate Portfolio Management," Irwin 1995.

similar tax-qualified plans. Defined contribution plans may be either employer-sponsored or employee-directed. Employee-directed plans constitute over 90% of all defined contribution plans. Exhibit 5 summarizes key differences between these plan types.

Exhibit 5

Characteristics of Traditional Defined Benefit and Defined Contribution Plans	
Defined Benefit Plans	Defined Contribution Plans
<ul style="list-style-type: none"> • Funding flexibility • Reward older and longer service employees • Employer bears risk • Usually not portable • Require actuarial valuation • Relatively low employee understanding/appreciation • Potential for unfunded liabilities • Pension Benefit Guarantee Costs and Insurance • Allow post-retirement benefit increases • Permit subsidized early retirement • Provide benefits targeted to income replacement level • May provide past service benefits • Usual form of payment is monthly income 	<ul style="list-style-type: none"> • Potential for stable and predictable expense • Possible discretion in funding • Significant accruals at younger ages • Employee often bears investment risk • Portable • Actuarial valuation not required • Higher employee understanding and appreciation • No significant unfunded liabilities • No Pension Benefit Guarantee Costs and Insurance • Employer cannot provide post-retirement benefits • Do not permit subsidized early retirement • May not provide past service benefits • Benefits are not targeted to income replacement level
<p>Source: Employee Benefits Research Institute March, 1996.</p>	

Reasons for the Growth of Defined Contribution Plans

There are many reasons for the increasing popularity of defined contribution plans. For employees, the popularity of defined contribution plans began in the 1980s when Corporate America began to seize on the alchemy made possible by IRC Section 401(k).⁵ Tens of millions of employees have since learned to leverage their savings by turning otherwise taxable pay into tax-deferred invested income.

The ability of employees to save on taxes now by paying later is clearly a significant factor contributing to the growth of defined contribution plans. Yet, tax deferral is not solely

⁵ Raymond J. Rogers, "Judging defined contribution plans in the 1990s," *Journal of the American Society of CLU & ChFC*, July 1995.

responsible for the heavy emphasis employers place on these plans. A continuing shift in employment from the industrial to the service sector and a pronounced change to less permanent employment relationships in corporate America have favored defined contribution plans, as they offer employees enhanced portability of benefits.⁶

For employers, defined contribution plans generally carry lower administrative burdens than defined benefit plans. Greater regulatory requirements, more complex accounting rules, lengthened life expectancy, and more aggressive vesting schedules have combined to make defined benefit plans increasingly costly and difficult to administer. The cost of administering defined contribution plans, on the other hand, is significantly lower because sponsors are relieved from paying for actuarial services, appraisals for private equity investments, consultant fees, and insurance.

ERISA has also clearly left its mark by excising significant premiums from all defined benefit plans in order to bail out those plans that are under-funded. ERISA has also subjected the net worth of corporations sponsoring defined benefit plans to the reach of the Pension Benefit Guaranty Corporation. For many employers, however, the appeal of defined contribution plans is more fundamental: they subject the corporation to less risk. Defined contribution plans make no commitment regarding how much in the way of retirement benefits will be available for distribution nor how long such benefits will last. Thus, defined contribution plans relieve the employer of the entire risk of *both* investment performance and longevity of benefit payments.⁷ Unfortunately, assuming the purpose of the plan is to produce retirement income, this is a zero-sum game. Risk is merely shifted to plan participants who, for the most part, are ill-prepared to deal with it. However, the investment management community has been quick to seize the role of

⁶ Ibid.

⁷ Ibid.

educator for such plan participants. In fact, defined contribution plan participant education is a flourishing industry, and most large investment management firms provide such services to plan sponsors.

The Composition of Defined Contribution Plan Assets

Thus far we have established that defined contribution plans are the largest single component of the institutional capital market and are likely to increase in size. The question now arises, how are these plans investing relative to defined benefit plans? More specifically, are defined contribution plans invested in real estate? In this section we will examine how defined contribution plans are investing and identify those investments with which real estate must compete for this pool of capital.

Exhibit 6

Asset Mix of Select Pension Funds						
Type of Investment	Public D.B. Plans		Corporate D.B. Plans		Corporate D.C. Plans	
	1993	1995	1993	1995	1993	1995
Domestic Stocks	40.7%	43.3%	47.1%	47.8%	51.2%	56.1%
Total International	5.9%	10.9%	11.5%	14.5%	1.0%	2.0%
Total Domestic Bonds	41.0%	35.9%	28.6%	25.5%	12.5%	10.2%
Other Investments:						
Equity Real Estate	3.4%	3.3%	4.4%	4.0%	0.3%	0.1%
Real Estate Mortg.'s	3.1%	1.2%	0.0%	0.2%	-	-
GICs	0.1%	0.1%	0.7%	0.4%	26.5%	22.9%
Short-term Securities	4.2%	3.1%	3.8%	3.1%	6.0%	4.7%
Other	1.6%	2.3%	3.8%	4.1%	2.4%	3.9%
Source: Greenwich Associates, Investment Management 1996.						

Exhibit 6 shows the asset mix of both defined contribution and defined benefit plans. Private defined contribution plans were significantly under-invested in real estate equity relative to public

and private defined benefit plans as of year-end 1995, with an allocation of just .1% compared to between 3.3% and 4.0% for public and private defined benefit plans, respectively. This fact demonstrates a tremendous opportunity for the real estate industry to attract more private defined contribution investment (provided this industry can deliver investment vehicles with adequate liquidity, etc.). Given that defined contribution plans held \$1.325 trillion in assets as of year-end 1995 (see Exhibit 2), a 2% allocation would infuse approximately \$26.5 billion into the real estate industry. By 1998, if projections by Bernstein Research hold true, this pool of capital will grow to \$2.050 trillion. The same 2% allocation to real estate would then increase the total invested in real estate to \$41.0 billion!

The fact that private defined contribution plans are under-invested in real estate relative to their peer defined benefit plans begs the question, what investments are they over-invested in? The answer is Guaranteed Insurance Contracts or GICs, and to a lesser extent, short-term securities. While defined contribution plans are not likely to reduce their allocations in short-term securities soon because of their need for a more liquid portfolio, their 23% allocation to GICs could arguably be challenged. GICs are simply investment contracts written by insurance companies against their general accounts which guarantee a fixed return and return of principal. Investors in GICs do not hold a specific basket of securities; rather, they look solely to the insurance company for payment under the contract. Though not separately disclosed, included in this allocation are synthetic GICs. Synthetic GICs are increasingly popular because they allow the investor to retain possession of a pool of assets (usually fixed-income instruments). The principal of this pool of assets is guaranteed, or "wrapped," by the issuer of the synthetic GIC. Of course, such guaranteed investments do not typically produce significant returns. In fact, GICs and synthetic GICs typically yield only a 5-5½% rate of return. The tendency of defined contribution plans to have such a high allocation to safe but low yielding investments has caused many industry professionals to express concern that participants are not earning a high enough return to

accumulate sufficient assets for the future. (See Under-investment and Inflation Concerns on page 19).

To conclude, defined contribution plans have virtually no allocation to real estate while their peer defined benefit plans have allocations typically ranging from 3.3% to 4%. At the same time, defined contribution plans have 23% on average invested in GIC portfolios or “stable-value” funds while defined benefit plans have almost no allocation to these relatively low yielding instruments. Much has been written about defined contribution plans having too high an allocation to stable value funds. Therefore, we contend that there may be an opportunity for the real estate industry to find a niche in these plan menus. Real estate is arguably a good candidate to compete with the GIC market, and is widely expected to produce higher returns in the future.

Current Issues Facing Sponsors of Defined Contribution Plans

Proposed Legislation Allowing Public Employees to Switch from DB to DC Plans

As much as \$165 billion in defined benefit plan assets may be liquidated if the California State Senate approves legislation to allow public employers to set up defined contribution plans. Assembly Bill 3252, which was passed by the State Assembly in early 1996, allows public employers participating in the California Public Employees’ Retirement System (CalPERS) and the California State Teachers’ Retirement System (CalSTRS) to establish an alternative defined contribution plan to run alongside their existing defined benefit plans.⁸ The major features of this bill include mandating that public employers give existing and future employees an irrevocable choice between remaining in the defined benefit plan and transferring benefits to a defined contribution plan. More than 1.2 million employees are now covered under the defined benefit plans of CalPERS and CalSTRS.

⁸ Williamson, Christine “California Funds Dear Asset Drain - Defined Contribution Bill Brouhaha,” *Pension & Investments*, June 24, 1996.

The implication of this bill, if passed, could be far reaching. In Oakland County, Michigan, for example, 10% of defined benefit plan assets, representing 40% of eligible employees, were moved into a defined contribution plan during the first year in which a similar bill was passed. For the two huge California funds, with combined assets exceeding \$165 billion, a 10% flight of defined benefit participants could trigger the need to liquidate some \$16.5 billion in assets. The passing of this bill could serve as a catalyst for other states considering plan conversions.

Under-investment and Inflation Concerns

Many pension consultants and industry professionals stress that under-investment is a serious issue facing plan sponsors.⁹ They reason that too many employees participating in profit sharing plans, 401(k) plans, and other defined contribution plans have opted to keep their money in short-term, seemingly low-risk investments when given the responsibility of choosing how their plan will be invested. This strategy will likely prove to be a problem for these individuals because of two factors; inflation and increasing life expectancy. Although inflation has been moderate over the last decade, it is a potential threat to the purchasing power of retirement income. In addition, as life expectancy continues to improve, assets that participants have accumulated will have to stretch further.

Raymond Rogers, a reputable industry specialist, stresses that perhaps nowhere is the inflation risk more easily demonstrated than during the distribution phase of a defined contribution plan.¹⁰ This phase is the time during which the retiree needs to arrange the investment and outflow of funds to create a match between two "lifetimes," one human and the other monetary. Exhibit 7 depicts the financial life expectancy of money accumulated in a retirement plan given various

⁹ Alexander Sussman, "The Investment Horizon: How can Employers Assure adequate Retiree Benefits in the Coming Years?" *Compensation & Benefits Review*, Jan/Feb 1996.

¹⁰ Raymond J. Rogers, "Judging defined contribution plans in the 1990s," *Journal of the American Society of CLU & ChFC*, July 1995.

withdrawal and investment return rates. (The exhibit assumes a constant 3% rate of inflation). The shaded area represents combinations of withdrawal and investment return rates that will exhaust the principal within 15 years – a period well within the life expectancy of the typical retiree.

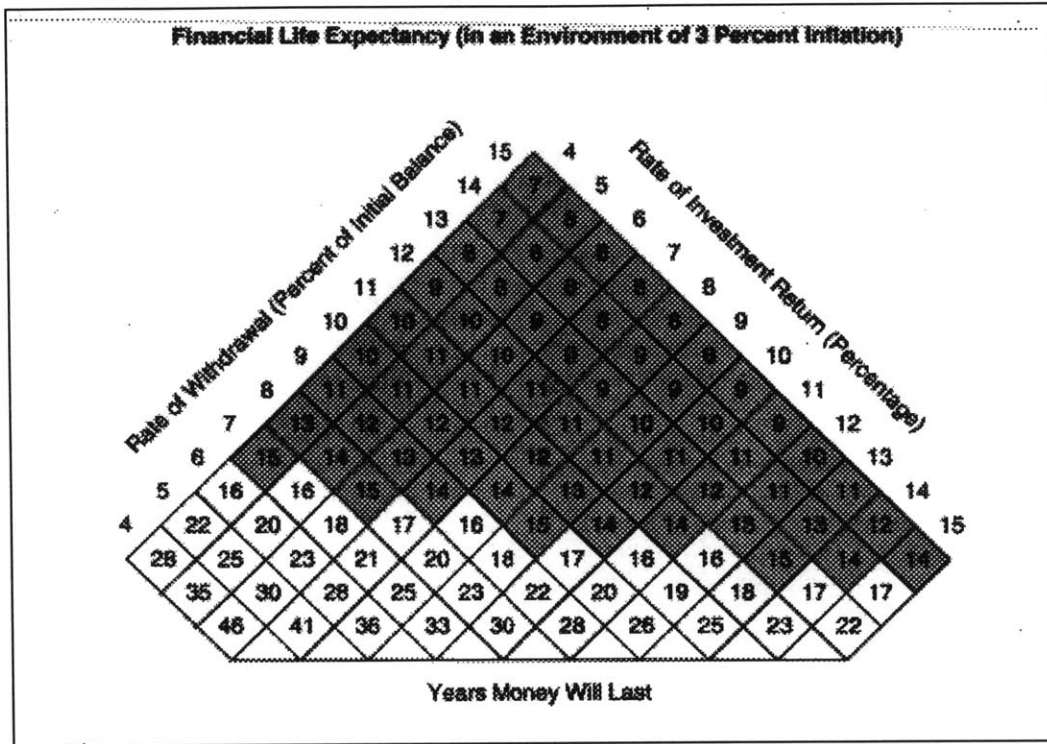
It is likely, therefore, that many future retirees may find that their retirement savings are insufficient to span their lifetimes. To avoid this scenario, many in the industry claim that most retirees need to assume significantly greater investment risk than they would otherwise like to tolerate.¹¹ As evidenced by numerous surveys, the current makeup of investments in defined contribution plans is very conservative.¹² Most financial planners agree that many participants in these plans currently have less to fear from investment risk than from inflation.¹³

¹¹ Sussman, Alexander “The Investment Horizon: How can Employers Assure Adequate Retiree Benefits in the Coming Years?” *Compensation & Benefits Review*, Jan/Feb 1996.

¹² An Institute of Management & Administration survey reported in IOMA's Report on Defined Contribution Plan Investing (April 25, 1995) found that nearly two-thirds of plan sponsors are concerned about their participants' investment choices for their plan assets, which tended to be too risk averse to provide adequate retirement income. Also see the annual Survey on Employee Savings Plans conducted by Foster Higgins, Princeton, NJ (1994)

¹³ Sussman, Alexander “The Investment Horizon: How can Employers Assure Adequate Retiree Benefits in the Coming Years?” *Compensation & Benefits Review*, Jan/Feb 1996.

Exhibit 7



The Need for Investment Education and the Growing Popularity of Lifestyle Funds

As a result of concerns about participant under-investment, many in the pension industry are advocating that participants be better educated as to the importance of asset diversification. These industry professionals maintain that plan sponsors should offer participants a broader choice of investment options including mutual funds containing small-cap stocks, mid-cap stocks, venture capital, depletable natural resources (e.g., timber and oil exploration ventures), *diversified quality real estate*, and investments outside the U.S.¹⁴ Indeed, in the course of our interviews with plan sponsors, many of them indicated that there is already a trend towards substantially

¹⁴ Sussman, Alexander "The Investment Horizon: How can Employers Assure Adequate Retiree Benefits in the Coming Years?" *Compensation & Benefits Review*, Jan/Feb 1996.

increasing the number of menu options. However, they also noted that in some cases, sponsors provide too many options with too little education, leaving participants no better off than if they were given a copy of the Wall Street Journal from which to choose investments.

As plan sponsors add more choices, it becomes increasingly necessary for individuals to better understand each investment option, its associated risk characteristics, and its likely performance relative to other choices. A survey conducted by the pension consulting firm Rogers Casey (cosponsored by the Institute of Management and Administration) indicated employee education is the single most important issue facing plan sponsors in the next five to ten years. John Webster of Greenwich Associates suggests that two factors make investment education so important. One is a growing realization that most 401(k) participants are not always able to make very sound investment decisions. The other is a growing awareness of where the responsibility may eventually lie for these investment decisions (despite section 404(c)). For most employers, Mr. Webster asserts, the Truman adage is on point: “The buck stops here.”

Innovations in investment choices are making it easier for participants to increase their return on plan investments. Though still relatively rare, a growing number of plan sponsors (7% of plans according to the IOMA survey) are offering *lifestyle funds* as investment options in their participant-directed 401(k) and profit sharing plans. Although a wide variety of investment vehicles currently characterize themselves as lifestyle funds (also known as asset-allocation funds), all share one common feature: they adjust the investment mix according to the risk threshold or age of participants. This feature allows lifestyle funds to better respond to changes in investment markets so that participants – who typically do not have much investment experience – are not faced with making difficult asset-allocation decisions. Furthermore, participants can change their level of investment risk as their personal situations change (such as marriage or the birth of children) or as they get closer to retirement age.

Conclusion

Defined contribution plans have experienced extraordinary growth and have now surpassed defined benefit plans in total size (in the private sector). These plans, however, are significantly under-invested in real estate. Accordingly, we believe that an opportunity exists for real estate to be introduced to defined contribution plans.

In this chapter we have examined the forces that have contributed to the growth of defined contribution plans. Namely, defined contribution plans allow participants to leverage their savings by turning otherwise taxable pay into tax-deferred invested income. They also provide participants with greater flexibility because the retirement benefits that they accumulate are portable. For plan sponsors, the benefits of defined contribution plans include lower administrative burdens, lower costs, and less risk because sponsors are generally not liable for the retirement benefits accrued in these plans.

Several issues may dramatically reshape the future growth of the defined contribution plan market. The first is proposed legislation to allow employees in the California public retirement systems to convert their defined benefit plan accumulations into defined contribution plan assets. This bill could trigger similar bills in other states, which could vastly accelerate the growth of defined contribution plans (at the direct expense of defined benefit plans). Second, industry specialists have expressed increasing concern that participants in defined contribution plans have invested too conservatively (the under-investment problem) and may face a shortfall of retirement benefits at retirement. Third, a recent trend in the industry toward increasing the number of investment choices on plan menus has led to a corresponding need for greater participant investment education. Finally, a trend towards lifestyle funds and balanced accounts may signal a partial reversion by defined contribution plans to professional portfolio management similar to that found in traditional defined benefit plans.

CHAPTER TWO: REAL ESTATE'S ROLE IN THE DIVERSIFIED PORTFOLIO

Real estate has a role in the institutional portfolio, given its inflation hedging qualities. "Real estate's benchmark portfolio is the CPI." An objective of the asset class is to earn a consistent rate of return of 300 to 500 basis points above the CPI, which it has generally done (except for the 1990-1994 period which saw the worst recession in real estates history).¹⁵

Introduction

The purpose of this chapter is to demonstrate that real estate has a place in a defined contribution plan portfolio. We will discuss and assess the continued validity of several traditional arguments which advocate including real estate in institutional portfolios. We will then examine the role of the relatively new public real estate investment vehicles, and explore how these securities fit into a real estate portfolio. We conclude this chapter by discussing why we think these studies are equally applicable to defined contribution plan portfolios.

The Traditional Arguments for Private Direct Equity.

In this section we discuss some of the traditional arguments as to why real estate should be included in institutional portfolios. We begin by discussing the unique characteristics of the claim on a real estate investment. We then examine the validity of the long-running argument that real estate returns are less volatile and tend to be negatively correlated with inflation. Finally, we briefly discuss one of the tenets of Modern Portfolio Theory that suggests that a truly diversified portfolio must hold components of all sectors that comprise a nation's wealth.

¹⁵ Blake Eagle and Susan Hudson-Wilson, Chapter 1: "Real Estate Markets: A Historical Perspective," in *Managing Real Estate Portfolios*, Susan Hudson-Wilson and Charles H. Wurtzebach, 1994 Irwin PP. 1-49.

Real Estate is a Unique Investment.

Real estate is a unique investment. First, the nature of the claim on the underlying assets in a real estate investment is different from other asset classes.¹⁶ Real estate is a highly tangible asset. The useful life of a real estate holding is generally much longer than, for example, a typical machine used to produce durable goods. Also, because land underlying property does not depreciate (in the long term), a real estate investment will have residual value once the improved property becomes obsolete (either from physical or functional obsolescence). Contributing to the stability of real estate's residual value is the fact that land tends to appreciate over time. Also, the claim to the equity holder of a real estate investment has fixed-income characteristics to the extent that there are operating leases in place, and has characteristics of a common stock for the residual claims that accrue upon lease expiration.

Second, because of the immobility of the underlying assets, real estate investments are subject to movement in metropolitan area supply and demand conditions, while businesses that underlie common stock investments (with sometimes multiple locations) tend to be influenced by more national supply and demand conditions. Also, there are fundamental differences in cash flows. Leases allow real estate investors to pass a portion of general business risk onto others. As such, property can often avoid part of a business cycle through a multi-period lease.

A third unique feature of real estate involves control over operating decisions. In real estate investment, an investment manager often has tactical control over important business decisions. In contrast, a stock investment provides much less direct control over daily business decisions of the company management team.

¹⁶ Mike Miles, "The Enhanced Core: Performance Distinctions Between Alternative Definitions of the Baseline Real Estate Portfolio," *Real Estate Finance*, Spring 1996, 83.

These unique characteristics of real estate come at a cost, however. Along with more tactical control comes higher operating fees. Also, real estate is generally less liquid because sales occur less frequently, and the transaction costs are measurably higher. Because of infrequent trading, appraisals must be used to measure total return performance. Much has been written about the downward bias of real estate return volatility because of the effect of appraisal smoothing; the tendency for appraisals to be influenced by prior period reports.¹⁷ Finally, given the size of investment-grade real estate transactions, investors take longer to establish a significant portfolio, and take on more non-systematic risk (largely due to the “lumpiness” of asset purchases).

Real Estate Returns Are Less Volatile and Have Hedging Qualities – Historical Performance Measurements Revisited

In this section we examine updated performance data in order to corroborate the traditional argument that real estate returns exhibit less volatility than do corporate equities or bonds, and that these returns are partially hedged during periods of high inflation. Exhibit 8 shows real estate performance returns, as compiled by the National Council of Real Estate Investment Fiduciaries (NCREIF), compared with returns of other asset classes. Panel A shows a full twenty-year history and thus spans several market cycles for each asset class. Panels B through E provide five-year intervals of this performance data. Taken together, Panels A through E provide a good perspective of the return performance of the various asset classes as well as their standard deviations (volatility) and correlation with one another. Several observations can be made from the above data.

- First, during periods of high inflation (1976 to 1980), the NCREIF returns demonstrated significant hedging qualities, with a correlation of almost .6 with inflation. This confirms the long running contention that real estate indeed has inflation hedging capabilities. Meanwhile,

¹⁷ David Geltner (1992-1994) has developed methodology for “unsmoothing” appraisal returns. His work confirms the downward bias cited here.

small-cap stocks and REIT stocks (NAREIT Index) demonstrated a slight negative correlation with inflation, meaning that returns were slightly eroded during this period.

- Second, the NCREIF index demonstrates that real estate returns are considerably less volatile than those of stocks or bonds. However, there is considerable debate as to the effect appraisals have in estimating the appreciation component of real estate returns.
- Third, for all except the high inflation period (1976 to 1980), real estate has been uncorrelated with both stocks and bonds. During the high inflation period, real estate demonstrated a significant negative correlation with both the S&P, small-cap stocks, and bonds (around -50%). This pattern (low-to-zero correlation in most periods and significant negative correlation in inflationary periods) demonstrates real estate's value in diversifying and hedging portfolio returns.

In conclusion, the arguments that real estate returns (i) tend to be less volatile, (ii) have little to no correlation with other equities or fixed-income securities (providing diversification), and (iii) are positively correlated with inflation (providing a natural hedge), still appear to be valid.

Exhibit 8

Panel A. Historical Returns, Standard Deviations, and Correlation Coefficients 1976 - 1995

Investment	Mean Qtr. Return	Std. Dev.	Annual Real Return ³	Mixed-Asset Correlation Matrix ⁵								
				S&P 500 Index	Small-Cap Stock	L-T Gov't Bonds	L-T Corporate Bonds	NCREI F Index	NAREI T Index	Foreign Stocks	Inflation	
S&P 500 Index	3.72%	7.16%	8.89%	1.000								
Small-Cap Stocks¹	5.19%	11.37%	13.63%	0.766	1.000							
Long-term Government Bonds¹	2.72%	6.56%	4.96%	0.411	0.196	1.000						
Long-term Corporate Bonds¹	2.71%	5.95%	5.05%	0.400	0.223	0.973	1.000					
NCREIF/PRISA⁴	2.05%	1.84%	2.98%	-0.079	-0.026	-0.190	-0.207	1.000				
NAREIT Index	3.95%	7.12%	9.91%	0.651	0.761	0.332	0.357	0.082	1.000			
Foreign Stocks²	3.97%	8.81%	9.42%	0.559	0.414	0.357	0.319	0.023	0.503	1.000		
Inflation	1.29%	0.91%	0.00%	-0.151	-0.029	-0.346	-0.0349	0.493	-0.079	-0.251	1.000	

¹ Ibbotson & Associates
² Morgan Stanley EAFE.
³ Annual real return adjusted for inflation: $[(1 + i: \text{quarterly})^4 / (1 + \text{inflation: quarterly})^4] - 1$
⁴ The Prudential PRISA portfolio is used for 1976-1978.
⁵ Based on nominal quarterly returns.

Exhibit 8

Panel B. Historical Returns, Standard Deviations, and Correlation Coefficients 1976 - 1980

Investment	Mean Qtr. Return	Std. Dev.	Annual Real Return	Mixed-Asset Correlation Matrix								
				S&P 500 Index	Small -Cap Stock	L-T Gov't Bonds	L-T Corporate Bonds	NCREI F Index	NAREI T Index	Foreign Stocks	Inflation	
S&P 500 Index	3.51%	6.30%	4.33%	1.000								
Small-Cap Stocks	9.06%	13.29%	25.76%	.745	1.000							
Long-term Government Bonds	.68%	7.45%	-6.90%	0.401	0.321	1.000						
Long-term Corporate Bonds	.85%	7.40%	-6.28%	0.396	0.344	0.992	1.000					
NCREIF/PRISA	3.61%	1.26%	5.49%	-.197	-.500	-.479	-.547	1.000				
NAREIT Index	6.44%	6.19%	16.74%	0.624	0.749	0.457	0.500	-.479	1.000			
Foreign Stocks	4.20%	6.28%	7.19%	0.450	0.468	0.605	0.626	-.415	0.410	1.000		
Inflation	2.23%	0.94%	0.00%	-.002	-.268	-.0118	-.142	0.581	-.248	-.0083	1.000	

Panel C. Historical Returns, Standard Deviations, and Correlation Coefficients 1981 - 1985

Investment	Mean Qtr. Return	Std. Dev.	Annual Real Return	Mixed-Asset Correlation Matrix								
				S&P 500 Index	Small -Cap Stock	L-T Gov't Bonds	L-T Corporate Bonds	NCREIF Index	NAREIT Index	Foreign Stocks	Inflation	
S&P 500 Index	3.77%	7.67%	9.41%	1.000								
Small-Cap Stocks	4.91%	10.29%	13.33%	.827	1.000							
Long-term Government Bonds	4.22%	7.38%	11.43%	0.663	0.344	1.000						
Long-term Corporate Bonds	4.43%	7.11%	12.41%	0.697	0.398	0.982	1.000					
NCREIF/PRISA	2.99%	0.98%	7.28%	-.227	-.177	-.135	-.211	1.000				
NAREIT Index	4.74%	6.55%	13.87%	0.822	0.792	0.499	0.559	-.008	1.000			
Foreign Stocks	4.08%	8.83%	10.28%	0.586	0.462	0.328	0.331	0.086	0.575	1.000		
Inflation	1.19%	0.83%	0.00%	-.462	-.251	-.0469	-.548	0.018	-.538	-.0478	1.000	

Exhibit 8

Panel D. Historical Returns, Standard Deviations, and Correlation Coefficients 1986 - 1990

Investment	Mean Quarterly Return	Std. Dev.	Annual Real Return	Mixed-Asset Correlation Matrix								
				S&P 500 Index	Small Cap Stock	L-T Gov't Bonds	L-T Corporate Bonds	NCREIF Index	NAREIT Index	Foreign Stocks	Inflation	
S&P 500 Index	3.59%	9.33%	8.66%	1.000								
Small-Cap Stocks	0.87%	11.63%	-3.41%	0.920	1.000							
Long-term Gov't Bonds	2.75%	5.92%	6.36%	0.168	0.123	1.000						
Long-term Corporate Bonds	2.60%	4.22%	6.05%	0.030	0.021	0.951	1.000					
NCREIF/PRISA	1.31%	0.80%	1.17%	0.035	0.182	-0.076	-0.049	1.000				
NAREIT Index	0.40%	7.02%	-3.42%	0.821	0.898	0.334	0.258	-0.186	1.000			
Foreign Stocks	5.10%	12.66%	13.67%	0.651	0.621	0.317	0.205	0.060	0.750	1.000		
Inflation	1.02%	0.60%	0.00%	-0.136	-0.092	-0.605	-0.538	0.129	-0.346	0.649	1.000	

Panel E. Historical Returns, Standard Deviations, and Correlation Coefficients 1991 - 1995

Investment	Mean Qtr Return	Std. Dev.	Annual Real Return	Mixed-Asset Correlation Matrix								
				S&P 500 Index	Small Cap Stock	L-T Gov't Bonds	L-T Corporate Bonds	NCREIF Index	NAREIT Index	Foreign Stocks	Inflation	
S&P 500 Index	4.00%	4.42%	13.37%	1.000								
Small-Cap Stocks	5.93%	8.09%	21.09%	0.622	1.000							
Long-Term Gov't Bonds	3.23%	4.54%	10.00%	0.549	0.009	1.000						
Long-Term Corporate Bonds	2.95%	3.49%	8.99%	0.648	0.122	0.980	1.000					
NCREIF/PRISA	0.27%	1.83%	-1.77%	-0.057	-0.090	-0.083	-0.113	1.000				
NAREIT Index	4.21%	7.26%	13.66%	0.418	0.565	0.209	0.270	-0.019	1.000			
Foreign Stocks	2.49%	5.36%	6.69%	0.304	-0.032	0.417	0.358	0.115	0.359	1.000		
Inflation	0.70%	0.26%	0.00%	-0.093	-0.243	-0.047	-0.047	0.137	-0.359	0.071	1.000	

The Diversified (“Market”) Portfolio Argument (Breakdown of U.S. Wealth)

Advocates of Modern Portfolio Theory¹⁸ suggest that a truly diversified portfolio holds investments in all segments that comprise a nation’s wealth. This theory essentially maintains that investors should hold portfolios that consist of various combinations of a risk-free asset and a diversified portfolio (“market portfolio”), depending on their tolerance for risk.

Following this line of reasoning, several studies have been done to determine an appropriate allocation to real estate. Miles et al [1996] use the Wilshire 5000 index to approximate the value of all U.S. publicly traded equity. This index is valued at roughly \$5.5 trillion. Commercial real estate in the U.S., Miles estimates, is approximately \$4 trillion. Assuming that one-third of this commercial real estate is institutionally owned, the ratio of commercial real estate to stocks is about one to four, making real estate roughly 25% of an equity (stock) allocation. A similar study was undertaken in 1976 by the Frank Russell Company and Salomon Brothers which found that a perfectly diversified “market portfolio” would require a 27% allocation to real estate equity.

The Emergence of Public Real Estate Investment Vehicles

The Role of REITs in Real Estate Portfolios

Several studies have been conducted to examine the REIT industry and the role that REIT securities should have in a portfolio of real estate equity. In this section, we will discuss two such studies and then evaluate their implications for including public real estate securities in defined contribution plan menus.

¹⁸ Modern Portfolio Theory (MPT) has its roots in a paper written by Harry Markowitz in the 1950s.

*The Geltner et al. Study*¹⁹

Geltner et al. maintain that a longer term horizon should be employed when applying modern portfolio theory (MPT) to evaluate the role of public and private real estate in an institutional portfolio. Their reasoning is that the use of short-period (quarterly or annual) return statistics is not appropriate *when assets are not “informationally efficient.”*²⁰ Real estate, because of the appraisal smoothing problem in its return data, is not informationally efficient.

Most institutional investors have a medium to long-term investment horizon that is arguably better represented by a five-year period than, for example, a quarterly or annual period. Therefore, Geltner et al. employ this five-year investment horizon to evaluate a proper allocation to *both* private and public real estate in a typical institutional portfolio. Adjusting the NCREIF index for its known smoothing effect on private real estate returns and adjusting the NAREIT index for the effect of leverage, the authors find that there is more correlation between public and private real estate than previously thought.. Exhibit 9 summarizes the results of this analysis. Geltner et al. computed a correlation coefficient between public and private real estate (as measured by the NAREIT and NCREIF indices, respectively) of .338. (However, using quarterly return series analysis, this correlation drops considerably – see Exhibit 8 Panel A).

With correlations in the 30% range, Geltner shows that *both* public and private real estate should be included in institutional portfolios. The question then becomes how much of an allocation should real estate have? Exhibit 10 provides a summary of a mean-variance efficient frontier developed by Geltner et al. to determine various allocations for real estate.

¹⁹ Geltner, Rodriguez, and O’Conner, “The Similar Genetics of Public and Private Real Estate in the Optimal Long-Horizon Portfolio Mix,” *Real Estate Finance*, 12 issue 3, Fall 1995, 13.

²⁰ The expression “informational efficiency” refers to the speed in which information about a particular asset is reflected in its price.

Exhibit 9

Risk and Return Expectations for 5-Year Horizon Optimal Portfolio				
	S&P 500	L.T. Gov't Bonds	NAREIT *	NCREIF **
Mean Return	52.28%	26.97%	29.90%	11.23%
Standard Deviation	31.52%	32.64%	41.48%	28.30%
<i>Correlations:</i>				
S&P 500	100.0%			
L.T. Gov't Bonds	49.6%	100.0%		
NAREIT *	49.5%	42.3%	100.0%	
NCREIF **	25.2%	-6.1%	33.8%	100.0%
* Unlevered				
** Unsmoothed				

Exhibit 10

Mean-Variance Efficient Frontier, Five-year Investment Horizon					
Portfolio		Allocation Percentage			
Mean Return	Std. Dev.	Stocks	Bonds	Public Real Estate	Private Real Estate
25.0%	20.54%	18.33%	33.31%	7.94%	43.48%
30.0%	21.36%	32.49%	24.12%	8.77%	34.63%
35.0%	22.83%	46.65%	17.98%	9.60%	25.78%
40.0%	24.84%	60.80%	11.85%	10.42%	16.93%
45.0%	27.27%	74.96%	5.72%	11.25%	8.08%
Note: Returns are expected inflation-adjusted and cumulative over a five-year period.					

The results of this analysis confirm that both public and private real estate should play a significant role in the portfolio of a typical pension fund. For example, if a given fund has a portfolio-wide target real return of 35% over a 5-year period, Geltner et al. reason that an allocation of roughly 36% to real estate is appropriate (consisting of approximately 10% public and 26% private real estate). At lower return thresholds private real estate dominates their allocation matrix, while at

higher return thresholds private real estate falls out altogether. In conclusion, while this study suggests higher allocation levels than the 5% to 15% historically recommended by pension consultants, it is one of the more noteworthy studies documenting the role that public equity real estate securities, in addition to private real estate, have in large diversified portfolios.

*The Hartzell et al. Study*²¹

Hartzell et al. confirm private real estate's inflation hedging qualities (when markets are at or near equilibrium), but also conclude that publicly traded real estate has no hedging ability at all (as with stocks). As for diversification benefit, Hartzell et al. demonstrate that private real estate performs well in diversifying a mixed-asset portfolio. They go on to discuss how public real estate (REITs) has become less correlated with the S&P 500 and small-cap stocks but, nonetheless, cannot be expected to provide diversification benefits on a stand-alone basis.

However, REITs *combined* with private real estate investments are shown to enhance portfolio performance. Hartzell et al. performed several optimal portfolio weightings using mean returns, standard deviations, and correlations over several different time periods (similar to the analysis performed by Geltner et al.). To adjust for the effect of "appraisal smoothing," the authors simply doubled and tripled the volatility of the NCREIF index (versus attempting to unsmooth the index as was done by Geltner et al.).

The authors conclude that depending on return expectations and the investor's perception of the accuracy of the NCREIF Index, institutional investors can enhance portfolio performance by including public real estate in a private portfolio. For investors with moderate risk and return objectives, risk-adjusted performance can be enhanced by allocating between 15% and 25% to REITs.

²¹ David J. Hartzell, Charles H. Wurtzbaach, and David E. Watkins, "Combining Publicly Traded Real Estate Securities with Privately Held Portfolios," *Real Estate Finance*, Fall 1995 26.

Implications of these Studies

Both the Geltner and Hartzell studies advocate a role for real estate in mixed-asset institutional portfolios, and in particular, call for public securities (REITs) to be included in real estate equity portfolios. REITs are still not seen as providing a pure-play on the underlying real estate assets. However, the correlation of REITs (measured by the NAREIT index) with private equity real estate (measured by the NCREIF index) may be higher than previously thought. As the REIT industry matures, it is widely expected to experience less volatility, which may stimulate greater acceptance as an alternative to private equity real estate investments. We conclude that these studies support the argument that both REITs and private real estate should be included in well-diversified portfolios.

Can the REIT Market Grow Fast Enough to Accommodate Institutional Demand?

The capitalization of REITs has grown from \$4 billion in 1990 to \$60 billion as of June 1996.²² This tremendous growth has slowed recently (since 1994) due to a lack of IPO's, which is largely attributed to the re-emergence of private market capital availability. Some question whether the REIT industry will have a large enough capitalization to accommodate the potential appetite of pension funds (including defined benefit and defined contribution plans). However, at least one prominent REIT investment advisor predicts that through secondary offerings and private placements, the capitalization of the REIT industry will surpass \$200 billion by the year 2000.²³

Spurring the growth in private placements may be transactions such as the California State Teachers Retirement Fund's (CalSTRS) securitization of real estate assets held in its defined benefit plan portfolio. Over the next several years, CalSTRS will be working with its advisor, Aldrich Eastman Waltch, to exchange its real estate holdings for shares in existing REITs.

²² Discussions with Wilson MaGee, Principal at the Penobscot Group. These amounts exclude health care REITs and include partnership units (typically from private placements).

²³ Discussions with Wilson MaGee, Principal at the Penobscot Group.

Empirical Evidence – Trends in the Defined Benefit Plan Industry

Thus far we have examined relatively theoretical arguments made for including real estate in the portfolios of pension plans. The purpose of this section is to demonstrate that these arguments are being applied and that pension officials are, indeed, investing in real estate. In fact, they are expected to increase their allocations in the near term. Exhibit 11 shows pension plan sponsors' mean 5-year return expectations for various asset classes. This data was derived from a survey performed by Greenwich Associates, a prominent pension consulting firm.²⁴ The Greenwich Associates survey is reportedly the most comprehensive of its kind, with 1,600 or approximately 75% of all plan sponsors participating (both defined benefit and defined contribution plans). The most notable observation from this data is that pension officials expect only modest performance from domestic and international equities and they expect real estate to perform at more historically normal levels. These expectations by plan sponsors are not surprising. The Russell NCREIF index is showing much improvement in recent real estate performance. This index shows a first quarter 1996 total return of 2.6%, of which 2.16% was current income and .44% was capital appreciation.²⁵ This is a marked improvement from the negative returns experienced during the height of the real estate recession.

Perhaps more importantly, the *Greenwich Associates report indicates that pension officials expect to increase their allocations to real estate in the coming years*, from 3.1% as of year-end 1995 to 3.7% in 1998.²⁶ A recent survey done by graduate students at the MIT Center for Real Estate (sponsored by the Pension Real Estate Association) corroborates the Greenwich

²⁴ Greenwich Associates, *Investment Management 1996*.

²⁵ Russell-NCREIF Index.

²⁶ Greenwich Associates, "*Investment Management 1996*."

findings²⁷. We interpret this information as supporting the arguments made for including modest allocations to real estate in well-diversified portfolios.

Exhibit 11

Mean 5-Year Rate of Return Expectations – All Plan Sponsors			
Type of Investment	U.S.	U.K.	Canada
Short-term Investments	4.8%	6.7%	6.0%
Fixed Income	7.5%	8.0%	8.5%
Domestic Equities	9.8%	8.5%	9.2%
International Equities	10.5%	8.9%	10.3%
Real Estate	7.8%	7.6%	7.1%
Expected Rate of Inflation	3.5%	4.9%	3.2%
Exhibit 11b Change in Projected Asset Mix			
Type of Investment	1993	1995	1998 est.
Domestic Common Stocks	44.2%	46.4%	45.5%
Domestic Bonds	32.7%	28.1%	27.0%
International (stocks & bonds)	8.0%	10.4%	13.1%
Equity Real Estate	3.6%	3.1%	3.7%
Real Estate Mortgages	na	1.4%	1.4%
GICs	3.0%	3.9%	3.6%
Cash & Short-term	3.9%	3.5%	2.1%
Other	4.6%	3.2%	3.6%
Total	100.0%	100.0%	100.0%

Implication for Defined Contribution Plan Participants

In this chapter we have discussed the role of real estate in a well-diversified portfolio. All of the traditional arguments advocate a significant allocation to real estate assuming moderate return expectations. However, do these arguments apply to defined contribution plans? We have

²⁷ Daniel McCadden and Peter McNally, "U.S. Pension Fund Investment in Real Estate: A 25 Year History & 5 Year

uncovered nothing to suggest that individuals (investing on their own account or through defined contribution plans and/or mutual funds) should not follow the same strategy as defined benefit plan sponsors who invest on behalf of their plan participants. The same principal of maximum return for given risk (or mean-variance optimizing) still applies. Defined contribution plans and defined benefit plans both have the same objective – to accumulate sufficient proceeds over a long-term investment horizon in order to meet long-term liabilities. Therefore, we believe that real estate belongs in a well-diversified, efficient portfolio and should be included in defined contribution plan investments.

Forecast,” Masters Thesis, Massachusetts Institute of Technology, Aug. 1996.

CHAPTER 3. CAN DEFINED CONTRIBUTION PLANS INVEST IN REAL ESTATE?

Introduction

In this chapter we will explore the regulation of defined contribution plans (*primarily 401(k) plans – the most popular and fastest growing segment of defined contribution plans*) as they pertain to plan investments. The objective of this chapter is to gain a basic understanding of the duties and restrictions that the Employee Retirement Income Security Act (ERISA) and the Internal Revenue Code (IRC) place on plan sponsors, investment advisors, and plan assets – as they relate to possible investment in real estate by defined contribution plans.

A thorough discussion of pension law is well beyond the scope of this thesis. In general terms, however, the law places various fiduciary duties on plan sponsors and investment advisors, requires certain levels of asset performance and diversity, and mandates minimum levels of liquidity and periodic valuation of plan assets. In addition, ERISA rules prohibit many types of transactions between plans and various plan “insiders” such as plan sponsors and trustees. Each of these regulations has implications for defined contribution plans investing in real estate.

This chapter will demonstrate that, within certain restrictions, defined contribution plans may legally invest in public and private, securitized and non-securitized real estate.

Plan Assets

A discussion of the regulation of defined contribution plans and their investments must begin with an understanding of “plan assets.” *ERISA and IRC asset performance requirements that may restrict the investments that defined contribution plans may make only apply to “plan assets.”*

An understanding of “plan assets,” therefore, is key to answering the question whether, or in what form, defined contribution plans may invest in real estate

Generally, if a defined contribution plan owns real property in its own name, that real property is considered a plan asset. More frequently, however, a defined contribution plan will invest in another entity such as a mutual fund or insurance company separate account. *When a defined contribution plan invests in another entity, the plan’s assets include its investment (for example, a mutual fund unit) but do not, solely by reason of such investment, include any of the underlying assets of the entity in which it has invested.* For example, if a defined contribution plan invests in a publicly traded REIT, none of the real estate that the REIT owns are considered plan assets. Instead, the plan’s interest in the REIT, the REIT security (stock), is the only plan asset. Accordingly, ERISA and IRC standards that may restrict the investments that defined contribution plans may make only apply in evaluating the REIT security. The underlying real estate is not governed by pension law and is not directly considered when evaluating the REIT security as a plan investment.

Whether the underlying assets of an entity in which a defined contribution plan invests are plan assets or not depends on the type of entity and/or the size of that investment. (See Exhibit 12 and Exhibit 13). *Generally, the underlying assets of an entity in which a defined contribution plan*

*invests are considered plan assets unless the entity is a publicly traded company, a mutual fund, an operating company, or if the investment is not significant.*²⁸

Assets of Publicly Traded Companies and Mutual Funds

When a defined contribution plan invests in companies whose securities are widely held and freely transferable, or companies that are registered under the Investment Company Act of 1940 (typically mutual funds), the actual securities or mutual fund units are plan assets. The underlying assets of those companies or mutual funds, however, are not deemed plan assets and are therefore not subject to ERISA.²⁹ Accordingly, ERISA and IRC rules that may restrict the investments that defined contribution plans may make only apply in evaluating the public security or the mutual fund unit. Any underlying real estate that those entities may own is not governed by pension law and is not directly considered when evaluating the security or mutual fund unit as a plan investment.

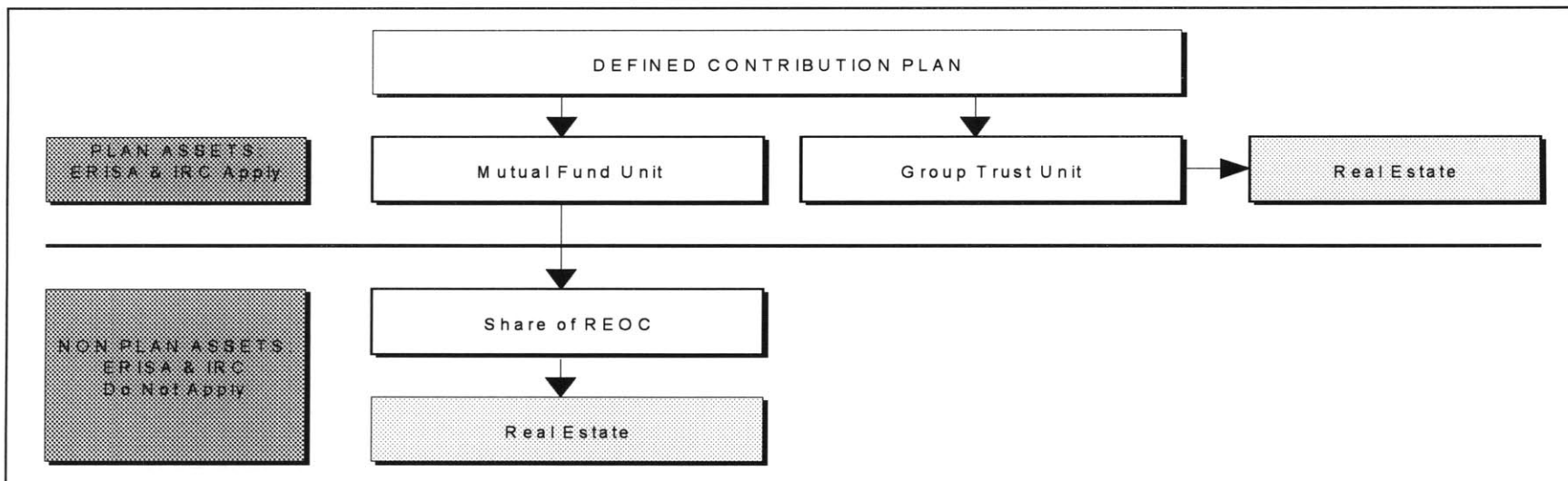
²⁸ See generally DLR 2510.3-101 et seq.

²⁹ DLR 2510.3-101(b).

Exhibit 12

INVESTMENT VEHICLES AND PLAN ASSET STATUS											
Investment Vehicle	Mutual Fund	Publicly Traded Corporation	Publicly Traded REIT	Private REIT	501(c)(25) Holding Corp.	Limited Liability Company	Partnership (<25% Interest)	Partnership (>=25% Interest)	Insurance Company Separate Account	Group Trust	Bank Trust Fund
Plan Asset	Fund Unit	Publicly Traded Security	Publicly Traded Security	Shares in a REOC	Shares in a REOC	Shares in a REOC	Limited Partnership Share	Underlying Assets are Plan Assets	Underlying Assets are Plan Assets	Underlying Assets are Plan Assets	Underlying Assets are Plan Assets

Exhibit 13



Assets of Private Operating Companies

Likewise, the underlying assets of private operating companies are not deemed plan assets subject to ERISA even if defined contribution plans invest in the equity of those companies.³⁰ Instead, when a defined contribution plan invests in a private operating company, the shares or securities of the operating company are the only plan assets. An operating company is an entity that is primarily engaged “in the production or sale of a product or service other than the investment of capital.”³¹ Real estate operating companies (REOCs) are one type of operating company within the meaning of DLR 2510.3-101(c). A REOC is an entity that, on a yearly basis, holds at least 50 percent of its assets in the form of real estate and that, on an ongoing basis, actively manages or develops that real estate.³² With regard to plan investments, therefore, a plan that seeks to invest in real estate through a REOC need only be concerned with the prudence of the REOC shares as investments, not the individual real estate assets that the REOC may own.

Assets of Non Publicly Traded Entities

The assets of entities whose equity interests (e.g., stock or partnership shares) are not widely held and freely transferable will not be deemed plan assets if less than 25% of the value of each class of that entity’s equity interests are owned by benefit plan investors such as 401(k) defined contribution plans.³³ However, if 25% or more of the value of any class of those entities’ equity interests comes to be owned by qualified benefit plans, the underlying assets of those entities *will* be deemed plan assets. Accordingly, ERISA and IRC rules that may restrict plan investments will apply when evaluating a plan’s interest in the entity (i.e., the stocks or partnership shares) *and* to the underlying assets of those entities. In addition, the directors of a non publicly traded entity that is 25% or more owned by qualified benefit plans are deemed plan fiduciaries subject to

³⁰ DLR 2510.3-101(c).

³¹ DLR 2510.3-101(c).

³² DLR 2510.3-101(e).

³³ DLR 2510.3-101(f).

significant legal duties to plan participants. As a result, many non-publicly traded entities seek to ensure that a 25% concentration of ownership by qualified pension plans does not occur.

Summary: Plan Assets

ERISA and IRC rules that may restrict the investments that defined contribution plans may make only apply to “plan assets.” Equity interests in other entities (e.g., securities or partnership shares) that are held by defined contribution plans are always deemed plan assets. Whether the underlying assets of those entities are deemed plan assets, however, will often depend on the type of entity. In the case of a publicly traded corporation, for example, even if defined contribution plans invest in that corporation’s stock, the assets of the corporation are not considered plan assets. Accordingly, a defined contribution plan need not directly consider those assets when contemplating investment in that corporation’s stock, and the corporation may operate without being subject to ERISA. This is also the case for mutual funds and real estate operating companies.

Although the underlying assets of some entities may not be deemed plan assets, it is important to note that the equity interest (e.g. stock, mutual fund unit, or partnership share) that a defined contribution plan may own *is* considered a plan asset the prudence of which may reflect the underlying assets of the entity. Therefore, for example, if a defined contribution plan invests in equity interests (shares) of a REOC that owns poorly performing, highly illiquid real estate, the REOC shares themselves may be imprudent investments because the performance of those REOC shares may closely reflect the performance of the underlying assets. With regard to defined contribution plans investing in real estate, therefore, an understanding of pension law is important whether the underlying real estate is deemed to constitute plan assets or not.

The Prudence of Real Estate Investments

Pension law restricts defined contribution plans from investing in, or offering, particular investments or types of investments that are considered imprudent and, therefore, inappropriate for qualified plans. In most circumstances, however, public and private, securitized and non-securitized, institutional grade real estate is clearly within the realm of prudent investments and is, therefore, legal.

The Internal Revenue Code (IRC) and Title I of ERISA impose fiduciary duties on plan sponsors and investment advisors that curtail the types of investments they can make or offer to participants of defined contribution plans. Generally, these duties seek to ensure that plan assets are reasonably invested in the interest of plan participants. The prudence of particular investments for a defined contribution plan depends on many factors including the investment's risk/return characteristics and the investment's role in the portfolio as a whole. In addition, IRC and ERISA require that defined contribution plans meet minimum liquidity levels and that they be valued at least once per year.

Plan Sponsors

The primary legal duty of a defined contribution plan sponsor is to offer employees a choice of reasonably prudent investment options and to ensure that risk/return characteristics of those options are reasonably disclosed. Generally, plans must be administered for the exclusive benefit of the employees and their beneficiaries.³⁴

A plan sponsor's fiduciary duties are both affirmative and negative. Specific affirmative duties include selecting proper investments, properly diversifying, ensuring liquidity and achieving a

³⁴ 26 USC 401(a).

reasonably adequate return. Negative duties include ensuring that the plan does not engage in certain prohibited transactions.

Investment Advisors

Under ERISA, plan sponsors may seek to limit the scope of their fiduciary duty with respect to investment decisions, by appointing “investment managers.” A plan sponsor who appoints an investment manager retains the fiduciary duty to oversee that investment manager.³⁵ An investment manager, as defined by ERISA, is an investment advisor who has registered with the Securities and Exchange Commission (SEC) as an “investment manager” in order to advise pension clients.

Generally, a fiduciary duty will be imposed upon an investment advisor who is hired by the plan sponsor to make investment decisions for the plan if that advisor has some degree of control over plan assets and renders investment advice that is tailored to the specific plan.³⁶ Like a plan sponsor, an investment advisor’s duties are both affirmative and negative. Specific affirmative duties include selecting proper investments, properly diversifying, ensuring liquidity and achieving a reasonably adequate return. Negative duties include ensuring that the plan does not engage in certain prohibited transactions.

³⁵ 1045 Pension Plan Guide 6 (February 13, 1995).

³⁶ A fiduciary duty will be imposed upon an investment advisor if the following conditions are met: 1. The person “renders advise to the plan regarding the value of securities and other property, or makes recommendations as to the advisability of investing in, purchasing, or selling securities or other property; and 2. Such person either directly or indirectly a. Has discretionary authority or control, whether or not pursuant to an agreement, arrangement, or understanding, with respect to purchasing or selling securities or other property of the plan; or b. Renders the investment advice or recommendations referred to in paragraph (1) on a regular basis to the plan pursuant to an agreement or understanding, written or otherwise, that the recommendations or advice are intended to serve as a primary basis for investment decisions with respect to plan assets, and the recommendations or advice are tailored to the individual investment needs of the plan, rather than, for example, general advice that might be given to any investor on the advisability of investing in the common stock of Company X. DLR 2510.3-21(c).

404(c) Safe Harbor Rules

Certain rules with respect to fiduciary duties may not apply to “participant directed individual account plans” if plan sponsors conform to the rather strict provisions of ERISA 404(c). In a participant directed individual account plan, each participant makes his or her own investment decisions within the parameters of the plan. Subject to certain restrictions, the fiduciary of such a plan is not responsible for any loss that results from the employees’ investment decisions, as long as the investment instructions are properly carried out.³⁷ *Practically speaking, however, a sponsor of a 404(c) defined contribution plan still retains the duty to provide participants with prudent investment choices.* Because the level of protection 404(c) offers plan sponsors is not universally understood or clear and because 404(c) regulation can be onerous, only approximately 20% of 401(k) defined contribution plans fully comply with 404(c) requirements. Nevertheless, 404(c) is used as a *guideline* for the administration of most 401(k) plans.

Requirements Under 404(c)

A plan falls within the purview of ERISA 404(c) as a participant directed individual account plan if it provides participants with the opportunity to exercise independent control over the assets in their accounts, choose from a broad range of investments, and control the manner in which some or all of the assets in their accounts are invested.³⁸ In addition, the plan must formally declare itself as a participant directed plan in the plan documentation.

A plan qualifying under 404(c) must offer at least three investment options that provide for diversification, materially different risk/ return characteristics, and permit participants to achieve a portfolio with aggregate risk/return characteristics at any time within the range normally appropriate.³⁹

³⁷ DLR 2550.404c-1(d)(1), *Rex v. Lincoln Trust*, 5 Employee Benefits Cas. 1138 (D.Colo.1983).

³⁸ DLR 2550.404c-1(b)(1).

³⁹ DLR 2550.404c-1(b)(3)(i)(B).

In order for participants' investment decisions to be considered independent they must be provided with sufficient information about the investment options to make an informed decision. The education level required to conform to the standard of "informed decision" may be onerous and is one of the primary reasons that many plans do not qualify, or do not seek to qualify, under 404(c).⁴⁰

Fiduciaries' Standard of Care

Plan sponsors, investment managers, and all other fiduciaries in a defined contribution plan must "act with the care, skill, prudence and diligence that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims."⁴¹ With respect to investment decisions, plan fiduciaries must give appropriate consideration to those facts and circumstances that the fiduciary knows *or should know* are relevant to the particular investment.⁴² The prudence of investment decisions, therefore, is held to a professional investment advisor standard.

⁴⁰ Specifically, the plan must provide, in relevant part, *without request*, the following investment information:

1. an explanation that the plan is intended to fall under ERISA 404(c) and that the risk of investment loss falls on the employee;
2. a description of the investment alternatives including the objectives and risk and return characteristics of each, and the type and diversification of the assets in each alternative;
3. the identification of selected investment managers
4. a description of associated transaction and administrative expenses for each alternative.

Other information must be provided with respect to the voting rights of securities and prospecti for investment that are subject to the Securities Act of 1933. DLR 1.404c-1(b)(2)(B)(1)(i)-(ix).

In addition, in order for participants' investment decisions to be considered independent they must be provided, *upon request*, with the following information:

1. A description of the annual operating expense of each designated investment alternative, including the rate of return for each plan participant, for each investment alternative;
2. copies of any prospectuses, financial statements and reports which are provided to the plan;
3. a list of assets in each investment alternative, including the value of each asset; and
4. the value of shares or units in each investment alternative. DLR 1.404c1(b)(3)(i)(A) and (C).

⁴¹ 26 USC 404(a)(1)(B).

⁴² 29 CFR 2550.404a-1.

In determining whether a fiduciary has met the requirements of the “prudent man” standard with respect to investment decisions, the Department of Labor considers first, whether the fiduciary has given thought to those facts which are relevant to the particular investment and second, whether the fiduciary has considered the role that the investment has in the overall plan portfolio.⁴³ If a fiduciary has exercised the proper standard of care with respect to an investment, that investment will be deemed appropriate for the plan.

Risk/Return and Diversification

The primary factors that a plan fiduciary must consider when making investment decisions on behalf of qualified plans are the risk/return characteristics of the investment, and the extent to which the plan portfolio is diversified. Plan assets must yield a fair return in light of the associated risks.⁴⁴ Plan portfolios must remain reasonably diversified in light of the particular investments they contain.⁴⁵

Liquidity and Valuation Requirements

IRC and ERISA rules require that defined contribution plans meet certain minimum levels of liquidity and that they remain able to be accurately valued at least once per year. At a minimum, all qualified retirement plans must provide that payments of benefits to plan beneficiaries begin not later than the 60th day after the end of the earliest plan year in which:

1. the participant turns age 65 or normal retirement age; or
2. the participant has participated in the plan for 10 years; or
3. the participant terminates employment with the employer.⁴⁶

⁴³ RLR 2550.404a-1(b)(1).

⁴⁴ Rev. Rul. 69-494, 1969-1 C.B. 88.

⁴⁵ DLR 2550.404a-1(b)(2).

⁴⁶ Rev. Rul. 69-494, 1969-1 C.B. 88.

Practically speaking, a defined contribution plan must have sufficient liquidity to pay benefits to participants within 60 days of a claimed redemption in the case of a termination at the end of a plan year.

Defined contribution plans must be able to ascertain amounts allocated or distributed to participants and, accordingly, most plans must value their trust investments *at least once per year*. In a 404(c) participant directed individual account plan, at least three of the investment alternatives must permit investment instructions *at least once every three months*.⁴⁷ Valuations must take place on a specified date in accordance with a method consistently followed and uniformly applied.⁴⁸ If the requirements of Rev. Rul. 80-155 are not met, the plan will lose its qualified status and associated preferential tax treatment.⁴⁹

Defined contribution plan investment in illiquid assets, such as private real estate equity, may present valuation *issues*, but such investments are not precluded for defined contribution plans provided that reasonably accurate yearly valuations are possible. With regard to assets for which a fair market value is not readily available, various regulations provide guidelines for determining value.⁵⁰

⁴⁷ RLR 2550.404c-1(b)(2)(i)(A). In addition, if one investment option in a 404(c) plan permits changes more frequently than every three months, another investment option must also be provided with equal flexibility to allow the employee to transfer funds from one investment to another.

⁴⁸ Rev. Rul. 80-155, 1980-1 C.B. 84.

⁴⁹ Accurate valuation is essential not only to a plan's ability to meet specific valuation rules but also to a plan's ability to comply with other sections of the IRC and Title I of ERISA. For example, a plan may not be granted an exemption from a prohibited transaction rule, as are often granted, unless the fair market value of assets is accurately determined. Likewise, an inaccurate valuation of qualified plan assets can cause a plan to violate the limitations on benefits and contributions under IRC 415 or cause a discrimination violation under IRC 401(a)(4) thereby threatening the plan's qualified status.

⁵⁰ DLR 2510.3-18(b)(2) defines fair market value as "the price at which an asset would change hands between a willing buyer and a willing seller when either party is not under any compulsion to enter into the transaction." Similarly, ERISA section 3(18) defines the term adequate consideration for assets for which a market value is not readily available as "the fair market value of the asset as determined in good faith by the trustee or named fiduciary pursuant to the terms of the plan and in accordance with regulations promulgated by the Secretary." IRS guidelines suggest that securitized plan assets, such as private REIT stock or other closely held securities, for which a fair market price is not readily available be valued in accordance with the factors listed in Rev. Rul. 59-60. Rev. Rul. 59-60 was issued in regard to valuing shares of stock of

Summary: The Prudence of Real Estate Investments

Under most circumstances, investment in institutional grade real estate, or entities that hold such real estate as part of their underlying assets, passes the standard of prudence required of defined contribution fiduciaries. Defined contribution plan regulations have specifically stated that a qualified defined contribution plans *may* invest directly or indirectly in real property, or may invest in mortgages on real property.⁵¹ In addition, IRS regulations have stated that qualified plans may invest a portion of their assets in limited partnerships, which in turn may invest in virtually any type of asset.⁵² As with any other investment, however, plan investments in real estate or in entities which own real estate, must be evaluated on a case by case basis in light of their risk/return characteristics, ability to be accurately valued, and effect on the plan's overall level of diversification and liquidity.

Prohibited Transactions

Under both IRC and Title I of ERISA, various transactions that are not in the interest of plan beneficiaries or which may evoke a conflict of interest with respect to the plan are prohibited. These restrictions have implications for how a plan may invest in real estate. Generally, an employer is prohibited from self dealing in plan assets, making loans to or from the plan trust, or permitting the plan to execute such transactions with other "disqualified persons" or "parties in interest."

Disqualified Person or Party in Interest

A disqualified person under IRC 4975 and a party in interest under ERISA 3(14), 29 USCA 1002(14) have virtually identical definitions and may include a variety of individuals, trusts,

closely held corporations for estate and gift tax purposes, however, the IRS has suggested that the same factors be used to determine values of assets in qualified plans.

⁵¹ BNA Pension & Benefits Reporter, (Dec. 14, 1992).

⁵² BNA Pension & Benefits Reporter, (Dec. 14, 1992). Although plans which qualify under 404(c) may be more restricted with respect to investments in limited partnerships due to the lack of publicly disclosed information. 1079 Pension Plan Guide 5 (Oct. 9, 1995).

partnerships or corporations. Specifically, a disqualified person or party in interest is any fiduciary or employee of the plan, any servicer of the plan, an employer whose employees are covered by the plan, an owner of 50% or more of an employer whose employees are covered by the plan, and other similarly defined insiders.

Prohibited Real Estate Transactions

Numerous transactions, both direct and indirect, are prohibited between the plan and disqualified persons or parties in interest. These include, in relevant part, “the sale or exchange, or leasing of any property between a plan and a disqualified person or party in interest.”⁵³ This provision effectively bars a company or investment advisor from buying, selling or leasing real estate to or from their affiliated defined contribution plan.

Real Property Exemption

There are, however, several statutory exemptions from the prohibited transaction rules. Included among them are certain investments by plans in “qualified employer securities or real property.” Specifically, a qualified retirement plan may acquire and hold up to 10% of total plan assets in qualifying employer securities or qualifying employer real property. The employer may not charge the plan a commission for such investments and the transaction must be for adequate consideration.

“Employer real property” is real property that is *owned by the plan and leased to the employer* or its affiliate.⁵⁴ Employer real property does not include real property owned by the employer and leased to the plan. To be deemed “qualifying,” employer real property must be a prudent investment for the plan. Specifically, qualifying employer real property must be:

1. geographically dispersed;

⁵³ IRC 4975(c)(1)(A), 26 USC 406(a)(1)(A).

⁵⁴ 26 USC 407(d)(2).

2. suitable or reasonably adaptive to more than one use; and
3. otherwise fall within the fiduciary standards of ERISA.⁵⁵

The 10% test is measured by taking the aggregate fair market value of employer securities and real property *at the time of acquisition*.⁵⁶ Accordingly, appreciation of employer securities or real property will not result in retroactive violation of the 10% rule. However, in computing the fair market value of the plan, liabilities will be netted out but in computing the fair market values of employer securities and real property any leverage will not be subtracted. Therefore, a plan with \$150 in assets with \$50 in debt will be considered worth \$100 and may, at most, invest in employer real property valued at \$10. An investment in a \$15 property, even with \$5 of leverage, would violate the 10% rule.

Conclusion

Within certain restrictions, defined contribution plans may legally invest in public and private, securitized and non-securitized real estate. Pension law restricts defined contribution plans from investing in, or offering, particular investments or types of investments that are considered imprudent and, therefore, inappropriate for qualified plans. The primary factors that a plan fiduciary must consider when making investment decisions on behalf of qualified plans are the risk/return characteristics of the investment, and the extent to which the plan portfolio is diversified. Although each investment must be considered on a case by case basis, under most circumstances investment in institutional grade real estate or in entities that hold such real estate as part of their underlying assets, passes the standard of prudence required of defined contribution plan fiduciaries. Pension law also prohibits various transactions that are not in the interest of plan beneficiaries or which may evoke a conflict of interest with respect to a defined contribution plan.

⁵⁵ 26 USC 407(d)(4).

⁵⁶ 26 USC 407(a)(2).

These restrictions may limit many possible real estate investments by defined contribution plans; however, certain allowances are made for qualifying employer real property. In conclusion, within the regulation of defined contribution pension plans there is broad opportunity for real estate investment.

CHAPTER 4. DEMAND FOR REAL ESTATE BY DEFINED CONTRIBUTION PLANS

Introduction and Research Methodology

In this chapter we will explore the demand for both public and private equity real estate by defined contribution plans. First, we will examine the specific characteristics that a stand-alone investment option must have in order to be successfully marketed and selected as a menu item. Second, we will explore plan sponsors' and investment advisors' demand for real estate (both public and private) as a separate menu item or as part of other investment options. Third, we will address specific obstacles and opportunities for public and private real estate in defined contribution plans.

As part of our thesis research, we conducted a survey of defined contribution plan sponsors and investment managers who provide services to defined contribution plans. Additionally, we spoke with numerous industry professionals with expertise in pension consulting, pension benefits administration, and real estate investment management. Readers should note that we did not intend for the surveys to be sufficiently large to allow for statistically valid analysis. Rather, our intent was to identify how real estate is viewed from a cross-section of some of America's largest plan sponsors and defined contribution plan investment advisors. (See Acknowledgments page 4). All surveys were conducted "live" (over the phone or in person). We surveyed only selected plan sponsors and investment advisors because the prospect of real estate making a significant entry into defined contribution plans is relatively new. As a result, we believe that if defined contribution plans are going to increase their investment in real estate, the larger companies and their advisors will lead the way.

The plan sponsors that participated in the survey have a collective asset base of \$46.4 billion in their defined contribution plans and over one million plan participants. In terms of asset value, our respondents represent approximately 3.5% of the total assets of all private defined contribution plans.⁵⁷ The investment advisors that we surveyed have a combined \$284 billion under management, 22% of the total assets of all private defined contribution plans. We also spoke with a highly respected pension plan consulting firm that serves as advisor for \$750 billion in pension assets. (The company also serves as an investment manager for approximately \$7.5 billion of defined contribution plan assets). Therefore, we believe that the information gained from these surveys and discussions will provide the real estate industry with insight into the current issues, obstacles, and opportunities for real estate investment by defined contribution plans.

Getting New Investment Options On a Plan Menu

In this section we will discuss what characteristics investment options must have in order to be viable as a stand-alone investment option. Knowledge of these issues enables us to identify what the real estate industry must do in order to successfully introduce investment options to the defined contribution plan market. We begin by reporting results of a survey tailored to gauge the importance of various issues associated with selecting new investment options. We then discuss the issues that arose from these questions and other more general discussions we had with survey participants and other industry professionals.

Observations

As a group, surveyed plan sponsors and investment managers indicated that *daily pricing*, *daily trading*, and *ease of administration* are the most important criteria for selecting and marketing investment options as menu items. (See Exhibit 14). These criteria were ranked numbers one,

⁵⁷ The total assets in private defined contribution plans as of year-end 1995 is approximately \$1.325 trillion. See also discussion of defined contribution plan asset size in Chapter 1.

two and three by investment managers and third, third (tied), and fifth by plan sponsors respectively. For plan sponsors, the two most important criteria were *employee demand* for specific types of investment options and sponsors' assessment of the *suitability and understandability* of those options. Interestingly, investment managers considered these two criteria relatively unimportant, ranking employee demand, for example, among the three least important factors. Performance measures were generally considered of little importance by both groups scoring an average of just 4.2 out of 7.0.

Daily pricing and Trading

As a group, surveyed plan sponsors and investment advisors scored the availability of *daily pricing* and *daily trading* as the two most important criteria when selecting or marketing investment options for plan menus. Daily pricing was ranked third by plan sponsors and first by investment managers, while daily trading was ranked third and second, respectively. These responses mirror a growing trend towards daily pricing and trading among defined contribution plans at large. The use of daily valuation has increased from 6% of defined contribution plans five years ago to 29% today.⁵⁸

Indeed, daily pricing is perhaps the most competitive area in the marketing of 401(k) investment services and is a major reason for the success of the largest mutual funds in the defined contribution market.⁵⁹ Access Research president Robert Wuelfing attributes the dominance of a handful of mutual funds in the 401(k) arena not to better products or investment performance but because "They have simply out-marketed the field. The big mutual funds players were the first to offer daily valuation - giving them an important selling edge."⁶⁰

⁵⁸ Bernstein Research, "The Future of Money Management in America," 1995.

⁵⁹ Karen Damato, *Wall Street Journal* March 1, 1996 Sec: C p:1.

⁶⁰ Julie Rohrer, "Darwinian Economics," *Institutional Investor* 28 issue 1, January 1994 137.

Exhibit 14

Survey of Defined Contribution Plan Sponsors and Investment Managers				
Criteria	Plan Sponsors		Invest. Managers	
	Average	Rank	Average	Rank
Participant demand for that type of investment option	5.7	1	4.4	12
Your assessment of how suitable the investment option is for unsophisticated plan participants	5.6	2	5.1	8
Availability of daily pricing for investment option	5.6	3	6.6	1
Ability to trade out of investment option daily	5.6	3	6.5	2
Ease of administration	5.5	5	6.3	3
Employee relation concerns if investment option performs poorly	5.4	6	5.9	4
Extent to which the investment option differs from others on the menu	5.3	7	5.6	6
Perceived risk of investment option for plan participants	5.1	8	5.1	8
The projected performance of investment option	5.1	8	2.3	14
The projected volatility of investment option	4.9	10	3.0	13
The past volatility of investment option	4.3	11	5.0	10
The name brand/reputation of the investment advisor/investment option	4.0	12	5.9	4
The past performance of investment option	3.7	13	5.4	7
Investment advisor recommendation	2.3	14	4.6	11

Note: This table shows tabulated responses to the question “How important (on a scale of 1 to 7) are the following criteria in 1) your decision to add an investment option to your plan’s menu or 2) your ability to market investment options to defined contribution plan sponsors?”

Although daily trading was ranked number two among survey respondents, actual trading activity by plan participants is very low – in the range of only 1% to 5% per year. The average Vanguard defined contribution participant, for example, does not do more than one transaction per year,⁶¹ and Fidelity Investments reported that fewer than 2 percent of its 2.6 million retirement plan participants changed their investment mix during the stock market downturn of Spring 1994.⁶² The ability to trade daily, however, was deemed important to surveyed plan sponsors and investment advisors because participants desire the option to trade even if they rarely exercise it.

Ease of Administration/Bundled Service

The ease of administration or provision of bundled service was the third most important criteria for survey respondents as a group, ranking fifth and third by plan sponsors and investment managers, respectively. Bundled service includes offering a variety of investment options as well as administrative and record keeping services from a single provider. The responses of survey respondents again mirror a larger trend in defined contribution plans. Defined contribution plans at large have increasingly turned to single source service providers who offer bundled defined contribution services. Today, more than two thirds of defined contribution plans purchase services on a bundled basis.⁶³ Moreover, the importance of bundled service increases the smaller the size of the defined contribution plan. (See Exhibit 15.) The large average size of our survey respondents, therefore, may understate the importance of bundled service in the defined contribution market generally.

Employee Demand

Surveyed plan sponsors considered employee demand for specific types of investment options the single most important criteria when selecting menu items. This fact has enormous implications for how real estate equity investment options (both public and private) should be marketed to plan

⁶¹ Julie Rohrer , “Daily News,” *Institutional Investor*, 7 issue 7, July 1994 207.

⁶² Julie Rohrer , “Daily News,” *Institutional Investor*, 7 issue 7, July 1994 207.

⁶³ Julie Rohrer, “Bundling Together,” *Institutional Investor*, 28 issue 4, April 1994 143.

sponsors. Interestingly, however, employee demand was considered among the least important criteria by investment managers. In particular, plan sponsors indicated that new investments must be proven at the retail level before they would be considered as a direct menu option. Most investors acting on their own behalf invest in mutual funds, and it is at this level that new investment options must be proven if they are to be successful as stand-alone items in the defined contribution plan market.

Exhibit 15

Prevalence of bundled service among defined contribution plans		
Plan Size (Participants)	Bundled Service	Unbundled
Less than 250	85%	15%
250-999	75	23
1,000-3,999	65	23
4,000 or more	59	40

Source: Investment Company Institute and Access Research.

Suitability/Understand-ability of Investment Option for Participants

The suitability of investment options for plan participants was ranked second and eighth by plan sponsors and investment managers, respectively. Participant education was consistently cited as one of plan sponsors’ highest concerns with regard to the administration of their defined contribution plans. Sponsors’ reasons for concern were not only possible legal liability but also a sense of paternalism for plan participants. While plan sponsors determine which investment options will be placed on the menu, with defined contribution plans it is the participant that typically makes the investment decisions. Many respondents we spoke with stated that participants are often unequipped to make informed choices. A recent study has corroborated these findings, reporting that more than a third of plan participants believe it is impossible to lose money in a bond fund, nearly 90 percent do not know that money market funds contain only

short-term securities, and a majority believe that stock in their own company is less risky than a diversified stock fund.⁶⁴

Trend to Life-Style Funds and Balance Funds

In light of concerns about participant education, some of the plan sponsors and investment managers with whom we spoke indicated a growing trend towards asset-allocation or life-style funds. These funds comprise premixed portions of various investment options, thereby removing the need for participants to make investment decisions. Also called lifepath funds or theme funds, these portfolios are usually well diversified and may be specifically matched to an investor's age group, risk tolerance, financial objective or investment horizon.

The typical life-style fund contains three to four investment classes; most often a growth fund, a growth and income fund, and an income fund. Life-style funds may be classified by risk profile (high, moderate, and low) or by target retirement date (for example, a 2000, 2010, 2020 or 2030 fund). Life-style funds designed for low risk or near retirement age participants are mostly invested in income, and growth and income funds, while funds designed for high risk or young participants are mostly invested in growth funds. The composition of life-style funds might include, say an equities/bonds/money market split of 80%/18%/2% (high risk), 40%/55%/5% (moderate risk), or 20%/70%/10% (low risk). To allow for flexibility, fund managers usually provide a minimum and maximum allocation for each asset class. For example, equities may make up 60% of the life-style fund, plus or minus 18 percentage points. Thus, the portfolio may hold as little as 42% or as much as 78% in equities at any given time. Many plan sponsors offer a balance fund option in addition to a life-style fund. Balance funds are essentially the same as life-style funds except that plan sponsors do not customize balanced funds for different risk and age categories.

⁶⁴ Carole Gould, "Mutual Funds; Lacking In Knowledge, Not In Confidence," *New York Times*, 3 January 14, 1996, 7.

Both life-style funds and balance funds have grown in popularity due to efforts to increase participant education in defined contribution plans. This educational process can be broken down in four parts:

1. convincing participants to invest rather than save (i.e., to think long-term);
2. guiding participants in determining their risk/time profile;
3. helping them understand how different asset classes work; and
4. giving them the courage to allocate their investments in asset classes according to their risk and time horizon.⁶⁵

Life-style funds significantly reduce the difficulty plan participants have with the last two items on this list. This fact largely explains the burgeoning interest that plan sponsors have in life-style funds. Current use of life-style funds is estimated by Greenwich Associates at 8% of all plan sponsors while 67% currently offer a balance fund.⁶⁶ Greenwich also reports that 9% of all plan sponsors are planning to offer life-style funds next year. One industry specialist predicts that life-style funds will make up as much as one quarter of the equity fund exposure in 401(k) plans within five years.⁶⁷

Demand for Real Estate

Present Investment

Real estate equity, both public and private, represented less than one percent of the assets of surveyed defined contribution plans. Only one plan sponsor reported private real estate equity in

⁶⁵ Ross Spencer, "Survey of 20 Vendors Explored Areas Of Commonality in Lifestyle-Type Funds," *Employee Benefit Plan Review*, January 1996, 18.

⁶⁶ Greenwich Associates, "Investment Management 1996," 25.

⁶⁷ Laura Pedersen, "Minding Your Business: Here's A Way to Diversify, With Training Wheels," *New York Times*, 3 February 4, 1996, 8.

their plan. This private real estate amounted to \$41.5 million or roughly 6% of the assets in their balance fund. The other surveyed plans had no private real estate equity exposure. All of the surveyed plan sponsors stated that their plans likely contained some public REIT stocks as part of various equity funds, but such investment represented less than 1% of assets. None of the respondents had a stand-alone REIT option such as a real estate mutual fund or included REITs as part of an asset allocation or life-style fund.

Public or Private? Stand-Alone or Imbedded?

Just over half of the survey respondents reported that they would prefer a public REIT fund over a private real estate fund, should they choose to add real estate as a stand-alone option on their plan menu. Those choosing public REITs indicated that they preferred the market-based pricing over appraisal-based pricing offered in private equity funds. *However, most survey respondents indicated that real estate would more likely be added to their defined contribution plan as an imbedded portion of an asset allocation or life-style fund.* Moreover, when asked to consider real estate as part of an asset-allocation fund or life-style fund, respondents on average reported a slight preference for private real estate equity - provided that such investment offered enhanced liquidity and daily pricing. *In fact, two plan sponsors indicated a strong preference for such enhanced, private equity real estate.* These individuals stated that if the current yield were sufficiently high (over 9%) they might consider adding a modest private real estate allocation to their balanced funds in the near future. Several investment managers indicated that, as memories of the real estate collapse fade, the need to enhance private equity in an asset-allocation or life-style fund may also fade – provided the exposure remains small.

Demand for Public Real Estate Equity

In this section we will discuss issues related to demand for public real estate by defined contribution plans. As mentioned above, investment in public real estate equity by surveyed plan sponsors amounted to less than 1%. However, discussions with survey respondents and industry

professionals lead us to believe that there is strong potential for the public real estate equity market (primarily REITs) to tap the defined contribution capital pool.

Time and Awareness

All respondents reported that the primary issue regarding REITs is insufficient historical data making an apples-to-apples comparison with other investments difficult. Respondents stated what most in the industry recognize – the modern well-capitalized REITs that are candidates for a defined contribution plan menu have only existed since 1992/1993. This fact makes it difficult for plan investment officers to argue a case for REITs, given competing investment options with a much longer performance history. Another important issue is public awareness. The respondents indicated that in order for REITs to penetrate the defined contribution market, favorable media coverage is needed, and the public at large will have to demonstrate an interest in REITs.

Correlation

Perhaps more importantly, respondents expressed concern that REITs are still more correlated with small-cap stocks or other equities than with real estate. They stated that this correlation must drop in order for REITs to diversify their other domestic equity investments; otherwise, respondents expressed more interest in investing in international equities, which have had lower correlations with domestic stocks.

The issue of REITs being highly correlated with small-cap stocks and the S&P 500 is possibly the largest obstacle to being more accepted by the pension fund community. Over the short time in which modern REITs⁶⁸ have existed, their correlation with corporate equities has indeed been high.⁶⁹ However, between 1991 and 1995, correlations between REITs and the S&P 500 and

⁶⁸ Modern REITs referred to here are those that began in the post-1990 period. Most of the REITs that existed before this time were mortgage or hybrid REITs, which largely have fallen out of favor.

⁶⁹ Refer to Chapter 2 for a more detailed discussion of REIT correlation.

REITs and small-cap stocks has declined.⁷⁰ Many industry professionals contend that these correlations will continue to decline as the REIT industry matures.⁷¹ Should this pattern continue, many advisors believe that institutional investors will be quick to increase their allocations to REITs, and this will stimulate demand at the retail or individual level.

Defined Benefit Plans Tend To Lead Defined Contribution Plans

Numerous respondents stated that if defined benefit plans begin making substantial allocations to REITs, defined contribution plans will follow suit, albeit after a lag of several years. For example, defined benefit plans have long been investing in international stocks, while defined contributions have only recently included such investment options. The decision by CalSTRS in early 1996 to hire Aldrich Eastman Waltch (AEW) to assist them in converting much or all of their private equity real estate portfolio into REIT shares might also serve as a catalyst for defined contribution plan REIT investment.⁷² This is a significant event that may, indeed, mark the acceptance of REITs in defined benefit plans. Many defined contribution plan investment executives and other professionals in the industry will be monitoring this transaction as it takes place. One thing is certain: the REIT industry will be getting more attention as a result.

Recent Trends – A Potential Opportunity for REITs

Discussion with The Vanguard Group revealed that they are beginning to market their relatively new REIT Index fund as a stand-alone option for defined contribution plan menus.⁷³ This could also serve as a catalyst for accelerating the acceptance of REITs by the defined contribution plan market. The Vanguard index is based on the Morgan Stanley all REIT index, less small REITs (those with a capitalization under \$100 million), among other adjustments. This REIT index fund started in the second quarter of 1996 and currently has \$100 million in assets. *Principals at the*

⁷⁰ Exhibit 1 (panel E) in Chapter 2 shows that the correlation between the Index and the S&P 500 has dropped .418 and the NAREIT/small-cap stock correlation has dropped to .565.

⁷¹ Refer to Chapter 2.

⁷² Ibid.

⁷³ The ticker symbol for this new REIT index is VGSIX.

company stated that they are actively marketing this product to defined contribution plans and expect to penetrate the defined contribution market in the near future. We see potential in this index for several reasons. First, Vanguard is known to have well performing indexes (several of the plan sponsors we spoke with include Vanguard's S&P 500 Index on their plan menus). Second, Vanguard is the second largest investment manager for defined contribution plans, with roughly \$70 billion under management, and therefore has a significant presence and influence in this market.

Summary Observations

Our research leads us to conclude that demand for REITs among defined contribution plan sponsors and investment advisors exists, though it may not materialize significantly unless certain things occur. These include: 1) REIT correlation with corporate equities must drop from current levels, 2) REITs must gain broader acceptance by defined benefit plans as these plans typically lead defined contribution plans, and 3) REITs must gain more acceptance at the retail or individual investor level.

Demand for Private Equity Real Estate Investments

In this section we will discuss issues related to the demand for private equity real estate by defined contribution plans. We will show that in the short term, demand for private real estate is likely to be strongest as an imbedded portion of a balanced fund or life-style fund. In addition, we will show that while there are many obstacles for private real estate in the defined contribution plan market, there are also opportunities for properly structured investment products.

Participant Education – Explaining How Private Real Estate is Priced

As discussed above, the three most important factors for new investment options to be successfully marketed and selected as menu items are: 1) that they can be priced daily, 2) that participants can trade out of the investment options daily, and 3) that the investment option be easy to administer. This does not bode well for placing a private equity real estate option as a

stand-alone menu option – even if the investment can be priced daily and guaranteed to be liquid. This is because pricing of private equity real estate is not transaction-based. Accordingly, if real estate is offered as a stand-alone option, plan sponsors will have to expend considerable energy educating participants about how private real estate investments are valued. This issue persists even if one were to guarantee the liquidity of the investment. This is possibly the largest obstacle for private equity real estate, and it is one that cannot be easily surmounted. For these reasons, survey respondents uniformly indicated that, at least in the near future, any exposure to private real estate investments would most likely take the form of an imbedded portion of a balanced fund or a life-style fund.

Shelf Space

Several of the investment managers with whom we spoke indicated that it would be difficult to market alternative investment options, such as real estate, to plan sponsors until the phenomenal performance by domestic and international equities subsides. These individuals suggested that real estate, like any new investment option, simply has not been able to compete for shelf space on plan menus. However, when the stock market returns to more normalized performance (which may be currently occurring), a better case may be made for including moderate levels of private equity real estate in defined contribution plans.

Recent Trends – A Potential Opportunity for Private Equity Real Estate Vehicles

One recent development which may represent an opportunity for private REITs and serve as a catalyst for broad-based defined contribution plan real estate investment is the recent formation of a private REIT product by a prominent mutual fund company. This investment manager is in the process of organizing a private REIT which will invest in *both* private and public real estate securities and will be marketed to both defined benefit and defined contribution plans as part of a larger balanced fund. This model appears to hold much potential to attract plan sponsors from some of the larger defined contribution plans. (In Chapter 5 we discuss various ways to introduce private equity to defined contribution plans).

Conclusion

Demand for real estate investments (both public and private) on behalf of defined contribution plan sponsors does exist. However, such demand is not uniform. Some sponsors are interested; some are not. A common response from surveyed plan sponsors and investment managers was that the memories of the recent real estate recession are still fresh in investors' minds making broad-based interest in real estate unlikely in the near term. Many respondents suggested that real estate may need a few years of good performance – particularly for private real estate – before any significant demand will be seen from defined contribution plans.

In this chapter we discussed the results of our survey of plan sponsors and investment managers as well as discussions with numerous industry professionals. Respondents informed us that new investment options must have *daily pricing, daily trading*, and be *easily administered* in order to be successfully marketed to defined contribution plans. Real estate investment options (public or private) must also meet these criteria. To quote a recent article, *“to attract defined contribution plan money, real estate needs to be adapted to an investment environment that demands daily asset valuation and sufficient liquidity to ensure that the plans are as mobile as the workers who invest in them.”*⁷⁴

Both public and private real estate investment products have obstacles that must be surmounted in order to gain broad-based acceptance by the defined contribution plan market. For REITs, these obstacles include a) increased acceptance by defined benefit plans and retail investors, and b) lower correlation with the general equities market (S&P 500 and small-cap stock indexes). The Vanguard Group's new REIT index, which is being marketed to defined contribution plans, may serve as one potential catalyst for broader-based acceptance of public real estate equities. In

⁷⁴ Mindy Rosenthal, “Defining a new investor market,” *Institutional Investor*, September 1995.

addition, many in the industry will be monitoring the success of the planned CalSTRS' conversion from privately held properties to REIT shares.

Private real estate equity vehicles must be more carefully introduced to defined contribution plans because of the pricing and liquidity issues associated with these investments. Nevertheless, there is demand for private equity real estate by defined contribution plans. In fact, two plan sponsors expressed a strong preference for private real estate, provided that liquidity be at least partially enhanced. Nevertheless, because of pricing and participant education issues, we believe – as do others – that private real estate will at first be most successful in the defined contribution plan market as an imbedded portion of a balanced fund or life-style fund. Efforts currently underway by a major investment management firm in marketing a *private REIT* product to defined contribution plans (among others) may expedite the acceptance of private equity real estate by defined contribution plans.

CHAPTER 5. MODELS FOR DEFINED CONTRIBUTION REAL ESTATE PRODUCTS

Introduction

As discussed in Chapter 4, the present demand for real estate (both public and private) by defined contribution plans is relatively low. Several factors, however, bode well for future growth. Yet, increased demand for real estate *alone* will not lead to significant real estate investment by defined contribution plans. In order for the real estate industry to successfully tap into the defined contribution pool of capital, real estate investment options must be structured in manners that meet the specific requirements of defined contribution plans. In addition, these new products must be marketed in ways that are fundamentally different from those in which real estate investments have traditionally been marketed to defined benefit plans.

In this chapter we will explore variations on three traditional investment vehicles (mutual funds, insurance company separate accounts, and synthetic guaranteed investment contracts), and assess their potential as models for introducing real estate to defined contribution plans. These models seek to provide real estate products that are priced and traded daily, easy to administer for plan sponsors, and easy to understand for plan participants. We will also explore how these real estate products must be marketed in order to successfully compete for capital in the highly competitive defined contribution plan market.

Mutual Funds

An increasing number of real estate mutual funds have already been established, some of which are subscribed to by defined contribution plans. Mutual funds meet the specific demands of defined contribution plans by providing daily pricing and trading and easy administration for plan sponsors. Mutual funds are also easily understood by plan participants. To date, however, no

mutual fund that we know of has significantly invested in private real estate equity. Instead, mutual funds have limited their real estate investments to publicly traded REITs and other real estate related securities. As such, the demand for real estate mutual funds by defined contribution plans reflects, and will continue to reflect, the greater demand for REITs. This demand, as discussed in Chapter 4, faces significant obstacles in the defined contribution plan market.

However, mutual funds also have the legal capacity to invest in private real estate equity. Mutual funds, therefore, represent a promising vehicle through which the real estate industry might tap into defined contribution plan capital as the demand for private real estate grows. In this section we will explore the legal restrictions on mutual funds' ability to invest in private real estate and present a model of how mutual funds might make such investments.

The Regulation of Mutual Funds

Mutual funds, or open-end management investment companies, are conduits for securities. Mutual funds consist of pools of securities that are unitized so that individual investors may trade fractional ownership positions in a given fund. Mutual funds must register under the Investment Management Act of 1940, fund managers must register as investment advisors under Investment Advisors Act, and fund securities must register under the Securities Act of 1933. In addition, if they wish to retain the status of regulated investment companies (RICs) and thereby avoid taxation at the corporate level, mutual funds must comply with Subchapter M of Subtitle A of 26 USC of the tax code (discussed below).

With respect to real estate investment, mutual funds may clearly invest in the equity securities of publicly traded companies that invest in real estate (REITs and REOCs). Investment in private securities or direct investment in real estate, however, is more restricted. Mutual funds are subject to strict tax laws which limit the extent to which they may invest in certain types of assets. In addition, mutual funds are subject to pricing and liquidity requirements which are far more

strict than those imposed on defined contribution plans. In this section we will focus on those mutual fund regulations that most constrain mutual funds' ability to directly invest in real estate or to invest in private real estate securities.

Liquidity

Under the Investment Management Act of 1940, mutual funds must stand ready to redeem shares daily and pay redeeming shareholders within seven days of receiving a redemption request. 15 U.S.C. 89a-22(e) prohibits a mutual fund from suspending the right of redemption or postponing redemption beyond seven days. This regulation requires that a significant portion of mutual fund investments remain liquid. In addition, Securities and Exchange Commission (SEC) guidelines specifically require that mutual funds hold no more than 15% illiquid assets.⁷⁵ An "illiquid" asset is defined as an asset that may not be sold or disposed of in the ordinary course of business within seven days at approximately the value at which the mutual fund has valued the investment on its books.⁷⁶

Valuation

A mutual fund must compute its net asset value each business day; mark-to-market. To compute a net asset value each business day, a mutual fund must be able to value each portfolio with reasonable accuracy. If market quotations are readily available, the mutual fund must value those assets accordingly. If market quotations are not readily available, the board of directors must make a good faith determination of fair value.⁷⁷

Tax Law

The most limiting factor with respect to mutual funds investing in real estate, however, may take the form of tax law restrictions. Subchapter M of Subtitle A of 26 USC provides special tax treatment for RICs, investment companies that operate as conduit or passthrough entities. RICs

⁷⁵ 17 CFR 239.

⁷⁶ 51 FR 9773.

⁷⁷ 17 CFR 270.2a-4.

that qualify under Subchapter M are entitled to deduct dividends paid for tax purposes and thereby avoid all federal taxation. A mutual fund that fails to pass the requirements of subchapter M will be taxed as a corporation. In order to qualify as an RIC, an investment company must meet three major sets of requirements annually; gross income, diversification, and distribution tests.

Gross Income Tests

IRS code has two gross income tests, the 90 percent and the 30 percent test. These tests are designed to ensure that RICs earn passive rather than operating income. The 90 percent of gross income test requires that at least 90 percent of the company's gross income fall in the category of "good income;" dividends, interest, payments with respect to securities, loans, and gains from the sale or other disposition of stock or securities.⁷⁸ Rental income does not qualify as "good income" for the purposes of the IRS 90 percent of gross income test. With respect to direct investment in real estate, gross income includes *gross* revenue from rents (not NOI) *and* capital appreciation. A relatively modest direct real estate investment, therefore, can create a large amount of "bad" income for the purposes of the 90 percent of gross income test.⁷⁹

Diversification Tests

To qualify as an RIC, a mutual fund must also pass two quarterly diversification tests, the 50 percent and 25 percent tests, with respect to the assets that it holds. The 50 percent test requires that at least 50 percent of the fund's assets must consist of: 1. cash 2. government securities 3. securities of other RICs and 4. other securities.⁸⁰ Private real estate interests do not qualify for the purposes of this 50 percent test.⁸¹

⁷⁸ 26 USC 851(b)(2).

⁷⁹ The 30 percent of gross income test requires that less than 30 percent of gross income must be derived from the sale or disposition of securities held for less than three months. 26 USC 851(b)(3).

⁸⁰ 26 USC 851(b)(4)(A).

⁸¹ The 25 percent of assets test prohibits an RIC from investing more than 25 percent of the total value of its assets in the securities of a single issuer or from investing more than 25 percent of the value of its total assets in the securities of two or more issuers that the fund controls and that are engaged in the same similar or related traded or businesses. 26 USC

Distribution Tests

Generally, an RIC must distribute most of its income, much like a REIT, in order to ensure its conduit nature. In order to qualify for RIC tax status, a fund's dividends paid deduction must equal at least the sum of (1) 90 percent of the fund's "investment company taxable income," and (2) 90 percent of the fund's "net tax-exempt interest income."⁸²

"Investment company taxable income" differs from more commonly understood "taxable income" in several ways. The primary difference between the two, however, is that "investment company taxable income" does not include capital gains which are taxed separately under Subchapter M.⁸³ With respect to real estate investment, therefore, income which flows to a mutual fund in the form of capital gains would not adversely effect a fund's ability to pass the 90 percent of taxable income distribution test.

Summary: Mutual Funds' Ability to Invest in Real Estate

Mutual funds may legally invest directly or indirectly in both public and private real estate. With respect to private real estate equity, mutual funds may technically invest up to 15 percent of a fund in direct real estate ownership or private real estate securities. However, under most circumstances, tax law further limits mutual funds' ability to invest in direct real estate ownership because such investment produces "bad income" in the form of rent. Practically speaking, therefore, mutual funds' investment in private real estate equity is limited to a maximum of 15% of assets in private REIT securities or other securities that re-characterize rental income as dividend or trust income.

851(b)(4)(B). In this context, "control" means ownership of 20 percent or more the voting power of outstanding voting stock. 26 USC 851(c)(2).

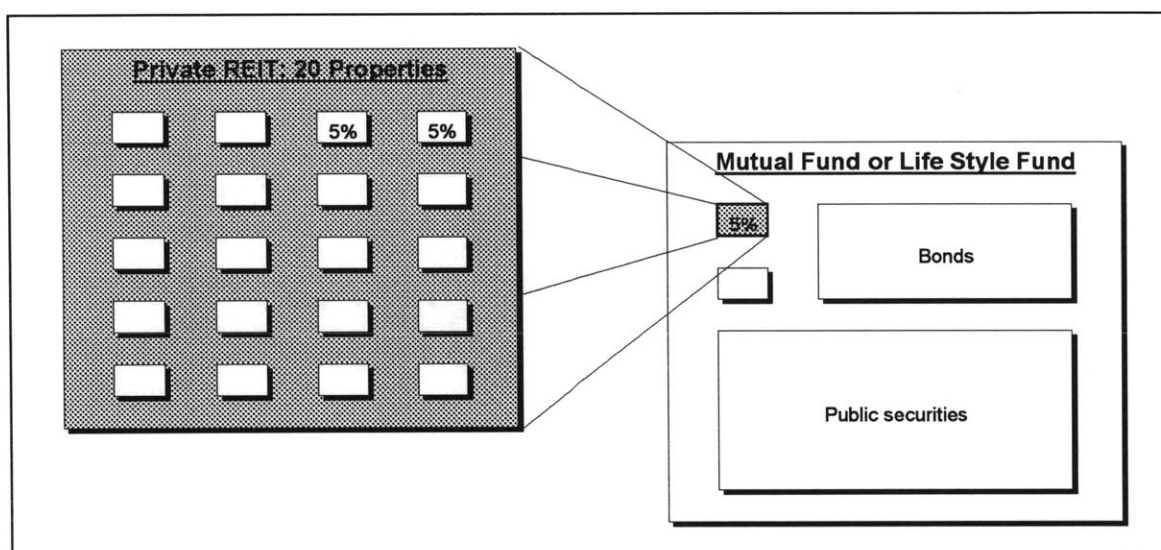
⁸² 26 USC 853(a)(1). "Net tax-exempt interest income" is the fund's interest income from exempt obligations, less allowed deductions. A fund's "dividends paid deduction" is loosely the amount distributed as dividends during the taxable year.

⁸³ 26 USC 1222(1).

Model

While investment in illiquid private REITs is legal, the lack of liquidity and daily pricing of such assets is an important concern to many mutual fund managers. Several fund managers with whom we spoke stated that while a fund *may* subjectively price assets for which a market price does not exist, the fear of miss-pricing illiquid assets leading to possible retroactive re-pricing is enough for them to avoid illiquid assets when possible.

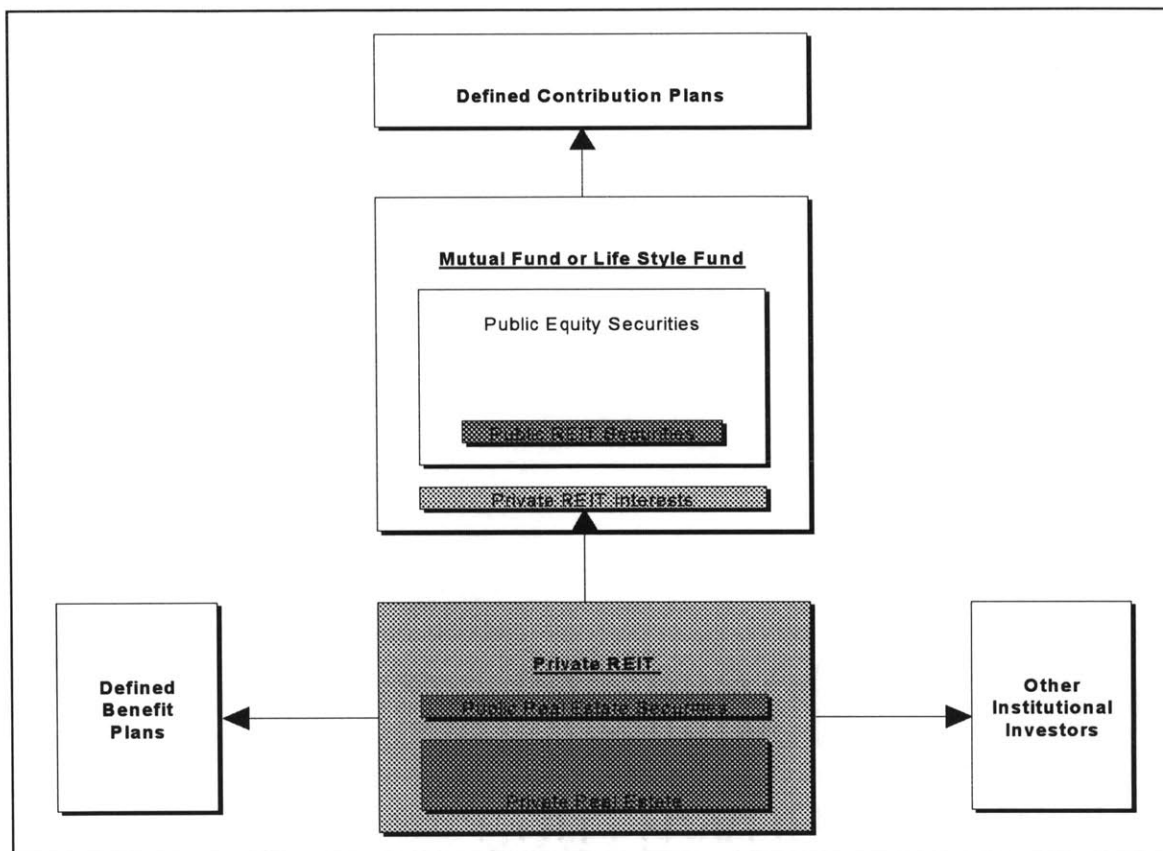
Exhibit 16



However, in the case of a mutual fund investing in a private REIT, the concern for daily pricing can be surmounted to a significant degree by fractionalizing the interests in the private REIT, further diversifying the REIT's portfolio, and keeping a given mutual fund's interest in the REIT relatively modest, say 5%. For example, if shares of a single private REIT are owned by multiple mutual funds and/or defined benefit plans, the REIT will have greater capacity to diversify among many properties. If the private REIT has 20 properties (each property representing an average of 5% of the value of the REIT) the value given to each properties on a daily basis, although not perfectly accurate, will represent only one fourth of one percent (25 basis points) of the net asset

value (NAV) of a mutual fund with a 5% allocation in that private REIT. (See Exhibit 16). In addition, the liquidity of a private REIT's securities may be enhanced through various mechanisms such as wraps or third party standby commitments to purchase REIT shares at book value. (See Synthetic GICs page 80).

Exhibit 17



Many mutual fund managers with whom we spoke expressed little interest in a model in which a mutual fund invests in a private REIT (as depicted in Exhibit 17). However, one prominent mutual fund has already laid the groundwork for marketing a mutual fund product to defined contribution plans that includes exposure to private REIT securities. We believe that as demand for private real estate by defined contribution plans increases, more mutual fund companies will

follow suit and develop mutual funds (balanced funds or life-style funds) which are specifically designed to include investments in private REITs.

Insurance Company Separate Accounts

Insurance companies are well positioned to build upon existing relationships with defined benefit plan sponsors and channel defined contribution capital into real estate. The largest obstacle for insurance companies is to properly structure their real estate for consumption by defined contribution plans. Several products have been developed by insurance companies with this market in mind. To date, they have met with little success due to poor market timing and stiff competition with a bullish equities market. However, we believe that as real estate returns rise and the stock market inevitably cools, demand for real estate by defined contribution plans will grow, and there will be opportunity for insurance companies to build upon these products and successfully tap defined contribution plan capital.

Regulation

An insurance company separate account is functionally similar to a registered investment company, or mutual fund, but is generally exempt from most provisions of the federal securities laws. For example, separate accounts do not have to register with the SEC as investment companies under the Investment Company Act of 1940. Moreover, separate accounts do not have to dodge the rigorous tax regulation of RICs which severely limits those vehicles from investing in private real estate. The most significant obstacle for insurance companies, therefore, (in addition to risk-based capital requirements) is not how to invest in real estate but how to structure that real estate in a daily priced and liquid form.

Model

An insurance company separate account may be unitized, priced daily, and provided with enhanced liquidity. Liquidity enhancements may range from the separate account incorporating

cash reserves for the repurchase of redeeming units, to the issuing company fully guarantying book value by pledging to repurchase units with funds from its general account. The valuation of assets in such a unitized and enhanced account may still be based on appraisals – not market sale prices -- however, to the extent that units are provided with an artificial market through different liquidity enhancing mechanisms, the inaccuracy of appraisal-based pricing assumes less importance.

Exhibit 18

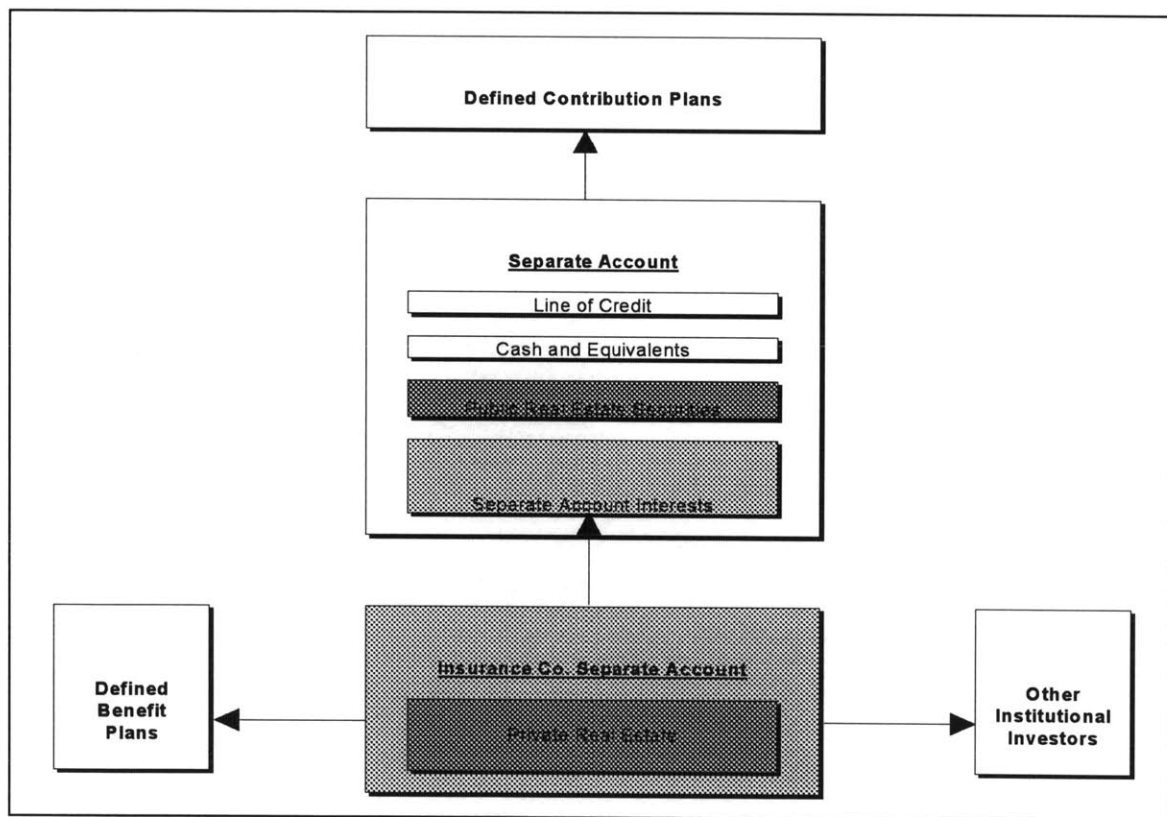


Exhibit 18 essentially depicts the structure of Equitable Real Estate Investment Management’s PREFER (Prime Real Estate For Employee Retirement) account which was launched in 1988. The PREFER account consists primarily of interests in Equitable’s \$3 billion Prime Property fund mixed with cash and cash equivalents, and incorporated with a line of credit covering 80% of the

value of the account. Units in the PREFER account are valued on a daily basis based upon yearly valuation of the properties in the Prime Property fund, quarterly reviews of those valuations, and daily adjustments based upon the flow of rental income. Units may be redeemed on a daily basis. Equitable does not guaranty that PREFER will always have sufficient funds to accommodate all redemption requests, however, units may be redeemed daily at book value to the extent that cash reserves and the 80% line of credit provide liquidity. Under all but extraordinary circumstance, therefore, units may be redeemed on a daily basis.

MetLife Realty Group offers a similar product, the Defined Contribution Real Estate (DCRE) account, which was launched in 1989. However, MetLife's DCRE account differs from Equitable's product in many ways. First, the DCRE account directly owns real estate properties, not interests in a larger, commingled separate account. Second, the DCRE Account does not include a cash reserve or a line of credit, but instead, MetLife fully guaranties the book value of units by acting as a market maker for the fund. When withdrawals exceed purchases on a given business day, therefore, MetLife buys the units and then resells them as new money enters the account. Such dealing between a defined contribution plan and a plan insider is typically prohibited by ERISA's prohibited transaction rules; however, MetLife has secured an exemption in this case from the Department of Labor. MetLife has also contracted with an independent fiduciary to oversee the firm's valuations in order to minimize possible conflicts of interest.

While both the PREFER and DCRE products meet the specific demands of the defined contribution plan market to a great degree, both retain certain attributes that make them difficult to market. In particular, to the extent that Equitable does not fully guarantee the liquidity of PREFER units, the product represents an educational hurdle for defined contribution plan sponsors and plan participants. Sponsors must explain that units are priced daily but, under some circumstances, same-day trading may not be possible. In addition, because MetLife's DCRE

directly owns properties, not interests in a larger account, the product lacks significant diversification making it more prone to single asset, non-systematic risk and more sensitive to the inaccuracies of appraisal based pricing. Nevertheless, these products demonstrate that the insurance company separate account model may be adapted to meet the specific demands of the defined contribution plan market.

Synthetic GICs

Approximately 23% of defined contribution plan capital is invested in guaranteed investment contracts (GICs) and their sister product, so called “synthetic” GICs. (See Chapter 1.) GICs typically represent a portion of a stable value fund or other low risk investment option. The prospect exists, however, to build upon the GIC model and create new types of synthetic GICs in which real estate represents a portion of the underlying assets. This new type of synthetic GIC might remain part of a stable value fund or may break outside of the fixed income world to be included in other types of investment options. In this section we will: first, examine the structure of both traditional and synthetic GICs; second, present a model in which defined contribution capital might flow through a synthetic GIC vehicle into real estate; and third, explore the possible role that hedge funds might play in such a new product.

Traditional GICs

In a traditional GIC, the issuer, typically an insurance company, guarantees a fixed return to the investor -- including return of principal -- for a specific term (usually five years or less). The issuer of the GIC is free to invest the principal as it wishes, but loses money to the extent that those investments fail to return the contract investment rate or fall below book value. In this way, traditional GICs are very similar to Certificates of Deposit issued by banks.

Traditional GICs are generally either secured interest or separate account plans. In a secured interest plan, collateral in the issuer’s general account secures the plan assets. In a separate

account plan, the assets are held separately from the issuer's general account. In either type, however, the assets in a traditional GIC are held in the issuer's name and face risk of loss or delay in repayment of principal in the event of issuer insolvency. In recent years, traditional GICs have fallen out a favor largely in response to the financial difficulties of several large insurance companies leading to GIC defaults.

Synthetic GICs

In a synthetic GIC, on the other hand, the pension plan retains ownership of the underlying assets. The issuer often manages but does not own the assets and writes a "wrapper" that protects against loss of principal. The level to which the issuer protects income return, however, can vary from zero to levels approaching that of a traditional GIC. The least expensive and most common type of GIC wrapper funds principal redemptions through asset liquidation and amortizes gains and losses *to the plan* over the term of the GIC. In this way, if the market value of the underlying assets drops below book value, the difference is amortized and charged against future income. This charge against income is credited to the book value of the assets so that the book and market values converge at the end of the GIC term. As a result, principal loss protection comes at the direct expense of future income return. (On the other hand, if the assets appreciate in value, future income returns may rise.) Only in extreme circumstances is the issuing company obligated to fund principal redemptions out of its own pocket in wrappers that are structured in this manner. Such a wrapper usually costs between 0.15% and 0.25% of total assets.⁸⁴ The most expensive type of GIC wrapper requires the *issuer* to absorb gains and losses. In synthetic GICs of this type, short term obligations are funded by drawing on the issuer's general account or cash reserve.

⁸⁴ Randy Myers, "A New Improved Retirement Play?" *Business Week*, September 9, 1994, 69.

Given the structure of most synthetic GICs, in which losses are absorbed by the plan at the expense of future income return, most plan sponsors seek to exclude risky assets. However, pressure to achieve higher returns from stable value and similar low risk funds has pushed many sponsors to wrap more risky assets including interests in hedge funds. Whether real estate or real estate securities could ever practically constitute the underlying assets in a synthetic GIC which is part of a stable value fund is uncertain. However, variations on the synthetic GIC model might be used to wrap private real estate securities allowing them to be carried at book value and thereby making real estate a possible component of a relatively low risk investment option.

Possible Role for Hedge Funds

Several plan sponsors have recently invested in hedge funds as one of the underlying assets in synthetic GICs. The purchase of hedge fund interests as part of synthetic GIC products may present an opportunity for defined contribution plans to indirectly invest in real estate.

“Hedge fund” is a generic term for a range of private investment companies. Hedge funds are typically structured as limited partnerships but may form as trusts or corporations. Analysts estimate that in the United States there are between 1,000 and 3,000 hedge funds with assets of between \$75 and \$160 billion.⁸⁵ With respect to real estate investment, hedge funds offer the unique ability to act like a securities conduit in much the same way that a mutual fund does, while avoiding most investment company regulation that restricts investments in illiquid assets and real estate. In addition, hedge funds are not restricted by the Investment Advisors Act with respect to performance based fee arrangements with clients, or by the Investment Company Act with respect

⁸⁵ Jaye Scholl, “Exit Cue?” *Barron’s*, Dec. 19, 1994, 15; George P. Van, “Hedging for Dollars: CEO Finance,” *Chief Executive*, Oct. 1994, 12; Gary Weiss and Joseph Weber, “Fall Guys?” *Business Week*, Apr. 25, 1994, 118. Paul Starobin, “Fragile Nest Egg?” *The National Journal*, May 7, 1994.

to certain prohibited transactions. (For more detail on the regulation of hedge funds, see Appendix A). The prospect exists, therefore, for a hedge fund that holds a mixture of public securities, fixed income instruments, *and real estate*, to compose part of the underlying assets of a synthetic-GIC-like product.

Marketing Real Estate Investments to Defined Contribution Pension Plans

Stand-Alone Versus Imbedded Option

Based on survey information and numerous conversations with plan sponsors and investment advisors, we believe that a niche exists, and will continue to grow, for real estate mutual funds and unitized insurance company separate accounts to be marketed as stand-alone investment options on defined contribution plan menus. Although separate account products such as Equitable's PREFER and MetLife's DCRE accounts have met with limited success, the inability of these funds to attract defined contribution capital can be attributed in large part to the fact that these funds were launched in the late 1980's (just as the bottom began to fall out of the real estate market) and to stiff competition for shelf space from an unprecedentedly bullish equities market. Nevertheless, these products go a long way toward meeting the specific demands of the defined contribution plan market by providing daily pricing and trading and relative ease of administration for plan sponsors. Going forward, therefore, we believe that these types of real estate investment options will ultimately gain market share as demand for real estate by defined contribution plans increases.

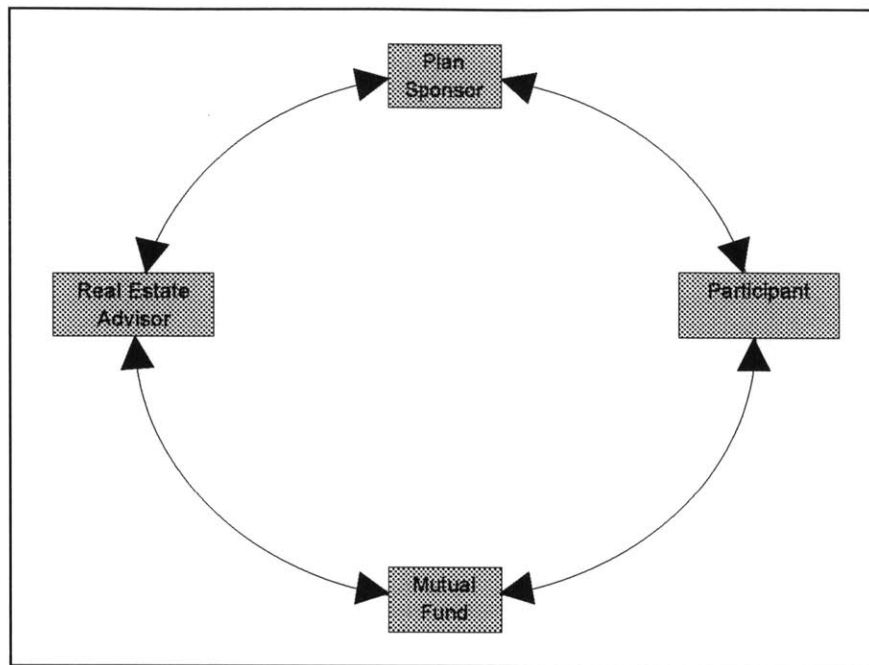
However, while a niche market exists for real estate as a stand-alone menu option, we believe that the growing trend towards balanced funds and life-style funds represent a stronger and more broad-based market opportunity for new defined contribution plan real estate products. Accordingly, we believe that real estate, in forms such as real estate mutual funds, insurance company separate accounts or synthetic GICs, should be marketed to defined contribution plans

as modest portions of a larger balanced fund or life-style fund. Imbedding these types of investments in a larger fund will provide plan participants with a more diversified portfolio while helping to quell plan sponsors' concerns about participant education with regard to real estate investment. In addition, to the extent that real estate represents only a portion of these funds, concerns about the valuation and possible illiquidity of these investments will assume less importance.

New Alliances

In order for the real estate industry to successfully create and sell new real estate products in the defined contribution plan market, existing relationships between real estate advisors, mutual funds, insurance companies, and pension fund consultants must be strengthened and new alliances must be formed. Defined contribution plan investments must be marketed at both the institutional level to plan sponsors and at the retail or individual level to plan participants. As a result, investment advisors who lack effective retail delivery mechanisms must align themselves with more participant-oriented service providers. Likewise, with respect to new models for defined contribution plan real estate products, retail-oriented defined contribution investment advisors may need to align themselves with more institutionally-oriented real estate pension fund advisors in order to gain real estate expertise.

Exhibit 19



For example, few mutual funds have in-house, private real estate core competency. If these mutual funds wish to compete with larger, more integrated mutual funds which offer private real estate products to defined contribution plans, alliances with real estate advisors may be necessary. (Several such relationships between mutual funds and real estate advisors already exist for the management of REIT mutual funds.) Likewise, real estate advisors seeking to successfully transition from an industry moving from defined benefit to defined contribution pension plans may seek alliances with mutual funds and other defined contribution plan investment advisors who are better able to market to such participant directed plans.

CHAPTER 6. CONCLUSION

Pension funds in the United States are undergoing a dramatic shift from traditional defined benefit plans to newer defined contribution plans such as 401(k) plans. The real estate industry must recognize that this shift is occurring and that investment products traditionally sought by defined benefit plans fail to meet the specific demands of the defined contribution plan market. To date, only approximately 0.1 percent of private defined contribution plan capital has been invested in real estate equity. If this number is to increase, not only must demand for real estate rise at the retail level, but so must supply of real estate products that meet the specific characteristics of that demand.

The real estate industry *has* the ability to tap into defined contribution capital through publicly traded REITs and through new and innovative private real estate investment vehicles. To date, however, public REITs have not yet gained broad-based acceptance by plan sponsors and there has been little supply of private real estate products that meet the specific demands of defined contribution plans. Nevertheless, several factors indicate that defined contribution plan demand for real estate is growing and will continue to grow in the near future. Looking forward, therefore, opportunities exist in the defined contribution market for savvy real estate advisors and innovators.

A Growing Pool of Capital

Defined contribution plans represent the largest and fastest growing pool of capital in the United States. In the past eight years, defined contribution plan assets have more than tripled in value. In 1995, the value of private trustee defined contribution plan assets reached approximately \$1.325 trillion and, for the first time, surpassed that of traditional defined benefit plans. The growth of defined contribution plans has been fueled by their portability, their low administrative cost for plan sponsors, and their popularity with plan participants. Although most of this growth

has been in the form of newly established private plans, the prospect of public defined benefit plans rolling assets into defined contribution plans in mass may further accelerate the growth of this capital pool. For example, as much as \$165 billion of plan assets may be added to the defined contribution pool in California State alone under a proposed bill that would convert CalPERS and CalSTRS to defined contribution plans. The possible privatization of Social Security might also have a tremendous impact on the size of defined contribution plan assets.

Defined Contribution Plans Can and Should Invest in Real Estate

Real estate belongs in a well-diversified, efficient portfolio and should be included in defined contribution plan menus. Several studies demonstrate that both public and private real estate have a proper role in a well-diversified portfolio. Except for the 1990-1994 period, which saw the worst recession in real estates history, private real estate has repeatedly demonstrated its inflation hedging qualities by consistently earning a rate of return of 300 to 500 basis points above the CPI. Private real estate returns, as measured by the NCREIF index, have been considerably less volatile and have shown low correlation with stocks and bonds. These properties suggest that an efficient portfolio should include a minimum of five to ten percent real estate. In addition, having weathered the worst real estate crash in history, private real estate equity is again posting strong returns. In the first quarter of 1996 the NCREIF measured total returns of 2.6 percent of which 2.16 percent represented income yield. Lowering vacancy rates, rising rents and an increased regard for market fundamentals signal a real estate market with strong future growth and income potential.

Public real estate (REITs) also has a proper place in a well-diversified portfolio. As that industry has matured, REIT returns have become less correlated with the S&P 500 and small-cap stocks. New studies suggest that REITs, as measured by the NAREIT index, are more correlated with private equity real estate than previously thought. As the REIT industry further matures, it is

expected that this correlation with private real estate will increase and the correlation with equities will decrease.

While pension laws place many restrictions on plan sponsors and investment advisors with respect to plan investments, within these restrictions defined contribution plans may legally invest in public and private, securitized and non-securitized real estate. To date however, relatively little defined contribution capital has been invested in real estate equity. While public defined contribution plans have allocated 4.6% of plan assets in real estate equity in 1995, private defined contribution plans had invested only 0.3% of plan assets in real estate in 1993 and that number had fallen to 0.1% in 1995.

Demand for Real Estate

Survey information revealed relatively low demand for real estate by defined contribution plans. Low real estate demand is due in large part to the disappointing experience that sponsors and participants had with real estate during the crash of the early nineties and a bullish stock market over the past several years making alternative (non-stock) investments less desirable. With regard to public real estate, lack of sufficient history and awareness of the REIT market has also led few defined contribution plans to make such investments. Nevertheless, many factors bode well for future real estate demand (both public and private) by defined contribution plans. These include trends towards offering plan participants more investment options, greater emphasis on investment education, the rising popularity of balanced or life-style funds, an inevitable cooling of the stock market, and rising real estate returns. In addition, memories of the real estate recession and lingering questions about the viability of the REIT market should fade with time.

However, in order for the real estate industry to successfully tap defined contribution plan capital, real estate investment products that meet the specific requirements of the defined contribution

plan market must be created and effectively marketed. In particular, defined contribution plans increasingly demand that investments be priced and traded daily, be inexpensive and easy to administer, and be easy to understand. Essentially, defined contribution plans have dictated that in order for real estate to successfully compete for defined contribution capital it must look and act like a mutual fund.

Meeting the Demand

There are several ways to structure real estate products in order to meet the demand of defined contribution plans. New variations on mutual funds, insurance company separate accounts, and synthetic guaranteed investment contracts (GICs) may serve to provide real estate products that are priced and traded daily, easy to administer for plan sponsors, and easy to understand for plan participants. First, mutual funds, in addition to investing in public REITs, may make modest allocations to private REITs. In this way, mutual funds can serve to structure both public and private real estate for consumption by defined contribution plans. Second, insurance company separate accounts may be unitized, priced daily, and provided with enhanced liquidity. Liquidity enhancements might range from the separate account incorporating cash reserves for the repurchase of redeeming units, to the issuing company fully guaranteeing book value by pledging to repurchase units with funds from its general account. Finally, synthetic GICs can be expanded to include private real estate securities as part of their underlying assets. By guarantying a return of principal, synthetic GICs could allow real estate to be carried at book value, making it a more viable component of a defined contribution plan investment. While a niche market exists for stand-alone real estate products, the strongest demand for these new real estate products by defined contribution plans is as modest portions of larger balanced funds or life-style funds.

In order for the real estate industry to successfully create and sell these new real estate products in the defined contribution plan market, existing relationships between real estate advisors, mutual

funds, insurance companies, and pension fund consultants must be strengthened and new alliances must be formed. Defined contribution plan investments must be marketed at both the institutional level to plan sponsors and at the retail or individual level to plan participants. As a result, investment advisors who lack effective retail delivery mechanisms must align themselves with more participant-oriented service providers. Likewise, with respect to new models for defined contribution plan real estate products, retail oriented defined contribution investment advisors may need to align themselves with more institutionally oriented real estate pension fund advisors in order to gain real estate expertise.

Pension funds are among the largest owners of institutional real estate in the United States. However, this capital source is undergoing a dramatic transformation from defined benefit to defined contribution plans. As a result, the manner in which this capital source will invest in real estate is also changing. The real estate industry, and real estate pension fund advisory industry in particular, must realize that defined benefit plans are being replaced by defined contribution plans, and, unless this industry can successfully create and market investment products for the defined contribution market , it will face increasing competition for a shrinking pool of capital.

APPENDIX A. REGULATION OF HEDGE FUNDS

Hedge funds are exempt from much of the regulation of investment companies including the Investment Company Act of 1940, The Securities Act of 1933, and the Investment advisors Act.

Investment Company Act of 1940

Section 80a-3(c)(1) of the Investment Company Act of 1940 exempts from regulation any company whose outstanding securities are beneficially owned by fewer than 100 persons and that does not intend to make a public offering of its securities. A company which owns less than 10 percent of the outstanding securities of the private investment company is considered a single person. However, if a company owns more than 10 percent of the outstanding securities of the private investment company, each of the stockholders of the company will be considered a beneficial holder making violation of the 100 person limit likely. This exemption is not available to publicly traded companies but is the major exemption used by hedge funds.⁸⁶

The 100 person limit, the exemption under which most hedge funds fall, has represented a potential obstacle for defined contribution plans investing in such funds. If a defined contribution plan invests in a hedge fund, the issue arises whether the plan or the individual plan participants are beneficial holders. If each participant is deemed a beneficial holder then hedge funds would effectively be barred as a defined contribution plan investment due to the 100 person limit. However, a recent SEC no action letter to the Standish Ayer law firm provided that a hedge fund

⁸⁶ Section 80a-3(c)(5) of the Investment Company Act of 1940 also exempts from regulation any company which does not issue “redeemable securities” and which is primarily engaged in factoring, 15 USC 80a-3c(5)(A), lending, 15 USC 80a-3c(5)(B) or real estate 15 USC 80a-3c. To qualify under the real estate company exemption a company must have at least 55 percent of its assets in mortgages and other interests in real estate and the remaining 45 percent must consist of primarily real estate-related instruments. In this regard, the SEC has ruled that 55 percent of the remaining 45 constitutes “primarily” and thus up to 20 percent of the company’s assets may be in investments completely unrelated to real estate. NAB Asset Corp. (June 20, 1991).

may manage defined contribution plan money in the interest of the *plan* and therefore, the plan rather than the individual plan participants are deemed the owners of the fund.⁸⁷

Securities Act of 1933

Interests in hedge funds are themselves securities that must be registered and regulated under the terms of the Securities Act of 1933. However, hedge funds typically avoid such regulation by structuring their offerings as private placements under the safe harbor provisions of Rule 506 of Regulation D of the Securities Act.

Investment Advisors Act

Money managers as well as real estate advisors who manage qualified plan assets must register with the SEC as investment advisors. The investment advisors act limits registered advisors with respect to performance based fee arrangements with clients. Hedge fund managers, however, are exempt from such registration under 203(b)(3) of the Investment Advisors Act which exempts advisors who have had fewer than 15 clients in the preceding 12 month period and which do not hold themselves out to the public as investment advisors.

⁸⁷ 1105 Pension Plan Guide2 (April 8, 1996).