

## **Barton State Teachers Retirement System<sup>1</sup>**

Charles H. Wurtzebach and John McMahan

**Abstract.** The purpose of this case is to present the portfolio level challenges facing a public pension fund director of real estate. Public pension funds typically rely on a small professional investment staff charged with recommending the real estate portfolio strategy to the Board of Trustees. Following the Board's approval of the strategy, the staff is also charged with executing the strategy. In this case the Director of Real Estate is preparing the Board memo recommending the coming year's real estate investment strategy. Issues related to the overall real estate target allocation, recent market performance, investment style targets, and property type and regional investment considerations all impact the recommendation.

### **Focus**

As major real estate investors, public pension funds look to real estate to deliver specific performance characteristics to the overall portfolio. These characteristics include enhanced risk-adjusted returns via effective asset class diversification, stable cash flows, and a range of investment styles consistent with the portfolios overall strategy. The present case highlights the issues and challenges associated with developing a coherent real estate portfolio within the constraints of changing market conditions and pension fund goals and objectives.

### **Setting**

Eleanor picked up the draft investment memorandum and began reviewing what her staff had written (memo starts page 3 of the case). She knew that a big gap remaining were the final recommendations regarding the real estate strategy for 2012 and that it was her responsibility to make those final recommendations.

Eleanor Rigby was Director of Real Estate for the Barton State Teachers Retirement System (BarSTRS). Eleanor had been with BarSTRS since graduating from college in 1991, working her way up from analyst to her recent appointment as Director of Real Estate.

BarSTRS was a \$72.0 billion pension plan with a relatively old employee profile for a teachers' retirement system. Many of the plan beneficiaries were beginning to retire and it was anticipated that the plan would be cash flow negative by 2014.

BarSTRS had invested in real estate since 1993 and its real estate holdings currently represented slightly over 4.6% of the total portfolio<sup>2</sup>. The fund's experience with real estate had been quite

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<sup>1</sup> Adapted by Charles H. Wurtzebach from a case appearing in "Cases in Commercial Real Estate Investing", by John McMahan, Copyright 2005, with full permission of its author, copyright holder, and publisher, McMahan Real Estate Services, LLC, San Francisco, California.

good, averaging an overall un-leveraged annual return of 10.2% since inception. This included the significant losses that were realized over the recent recession period. While real estate had suffered losses, the ten year returns for real estate were strong enough to gain support by the Board to raise the real estate allocation from its present target level of 5.0%. Eleanor wasn't sure she wanted to recommend this, however, and needed to determine where any additional funds should be allocated.

She proceeded to re-read the draft investment memorandum to see if she could get any new insights that would help her come to a final recommendation.

## **Exhibits**

- Exhibit 1: US Real Estate Equity Capital Flows
- Exhibit 2: Top 10 Pension Fund Real Estate Equity Investors
- Exhibit 3: Comparison of Investment Returns
- Exhibit 4: Plan Sponsor Historical Return Expectations
- Exhibit 5: Plan Sponsor Investment Allocations
- Exhibit 6: Expected Capital Flows to Investment Managers
- Exhibit 7: Asset Class Correlations through 2Q2011
- Exhibit 8: Asset Class Annualized Income Return through 2Q2011
- Exhibit 9: Property Type Preferences and Market Type Preferences for Investment
- Exhibit 10: Vacancy Rates
- Exhibit 11: Annual Rent Growth
- Exhibit 12: NCREIF Property Index Returns
- Exhibit 13: NCREIF Investment Returns by Property Type
- Exhibit 14: Value of Construction Put in Place
- Exhibit 15: Capitalization Rates
- Exhibit 16: US Employment Business and Professional Services

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<sup>2</sup> BarSTRS' \$2.9 billion in real estate investments included: industrial (29.4%); multifamily (23.8%); retail (19.7%); office (11.9%); and other (15.2%).

## **Barton State Teachers Retirement System Investment Memorandum - 2011 Real Estate Strategy - DRAFT**

Date: October 31, 2011  
To: Board of Trustees  
From: Eleanor Rigby, Director of Real Estate  
Re: 2012 Real Estate Investment Strategy

This investment memorandum outlines our recommended strategy for real estate investment in 2012. Since this is such a critical year for our plan, we have gone into much more detail than we normally would. Trends in institutional real estate investment activity are initially reviewed, followed by a discussion of the extent and nature of pension investment in real estate, a review of the current real estate market, and our recommendations for an investment strategy.

### ***Institutional Real Estate Investment***

As of June 30, 2010, the total US real estate universe (debt and equity) was estimated at \$4.05 trillion.<sup>3</sup> Between 2002 and 2010, the real estate universe increased from \$2.24 trillion to \$4.05 trillion, an average annual growth rate of 10.1%. Of the 2010 total, approximately \$1.14 trillion (28.1%) was in the form of equity real estate with the balance being debt at \$2.94 trillion (72.5%). \$184 billion (13%) of the total equity invested is held by pension funds

In addition to their direct investment holdings, pension funds own shares in Real Estate Investment Trusts (REITs), making them a bigger player in the institutional real estate equity market. Exhibit 1 shows the US Real Estate Equity Capital flows and their share of the market:

**Exhibit 1  
US Real Estate Equity Capital Flows, June 30, 2010**

<b>Investors:</b>	<b>%</b>
Private Investors	40.7
Real Estate Investment Trusts	26.1
Pension Funds	16.5
Foreign Investors	8.5
REO (Bank Owned)	4.2
Life Insurance Companies	2.3
Public Untraded Funds	1.7
<b>Total</b>	<b>100.0</b>

Source: Emerging Trends in Real Estate 2011, ULI

### ***Pension Fund Investment in Real Estate***

**Major players:** Exhibit 2 shows that state/municipal pension plans comprise the largest group in the top 10 pension real estate investors (92%), with the 8% being in the form of corporate plans.

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<sup>3</sup> Emerging Trends in Real Estate 2010, ULI.

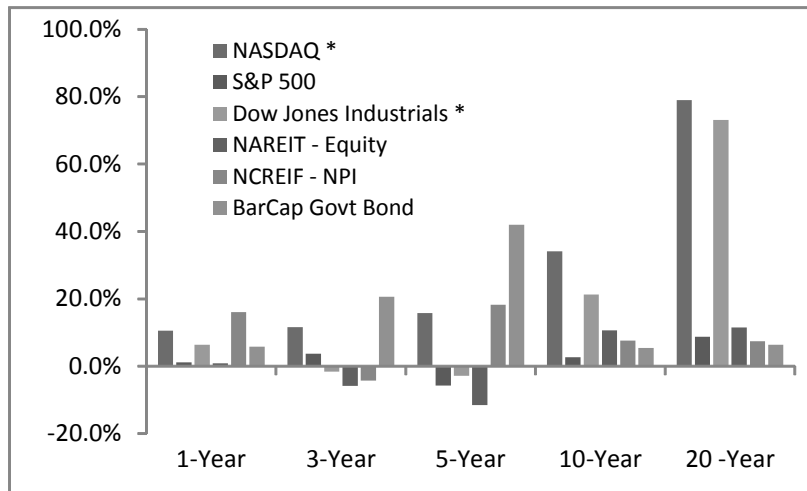
**Exhibit 2**  
**Top 10 Pension Fund Real Estate Equity Investors, September 30, 2010**

	Pension Fund	\$ Billions		
		Real Estate Equity Assets	Total Assets	% of Assets
1	CalPERS	\$ 14.1	\$ 214.3	14.1%
2	CalSTRS	13.8	138.8	10.0%
3	Washington State Investment Board	8.3	61.6	13.5%
4	State Board of Admin of Florida	6.2	123.4	5.0%
5	NY Common Retirement Fund	6.1	133.0	4.6%
6	General Motors Co.	5.8	101.5	5.7%
7	NYSTRS	5.7	80.3	7.2%
8	Teacher Retirement System of Texas	5.3	100.3	5.3%
9	PERS of Ohio	4.7	72.2	6.5%
10	Ohio State Teachers	4.0	61.0	6.6%
<b>Top 10 Total</b>		<b>74.0</b>	<b>1,086.4</b>	<b>6.8%</b>

Source: Pensions & Investments \* based on DB only

**Attraction of Real Estate as an Investment:** According to the PREA Consensus Forecast Survey<sup>4</sup> the outlook on real estate values is positive. Given the turmoil experienced in all investment categories over the past three years and the tremendous losses that have occurred, real estate is now continuing to surprise forecasters and provide healthy returns. While stocks and bonds performed admirably through 2Q 2011, private equity real estate recovered even better, as the NCREIF returns show (See Exhibit 3). Investors still believe that, in the long run, real estate offers generous risk adjusted returns along with an inflation hedge.

**Exhibit 3**  
**Comparison of Investment Returns, September 30, 2011**

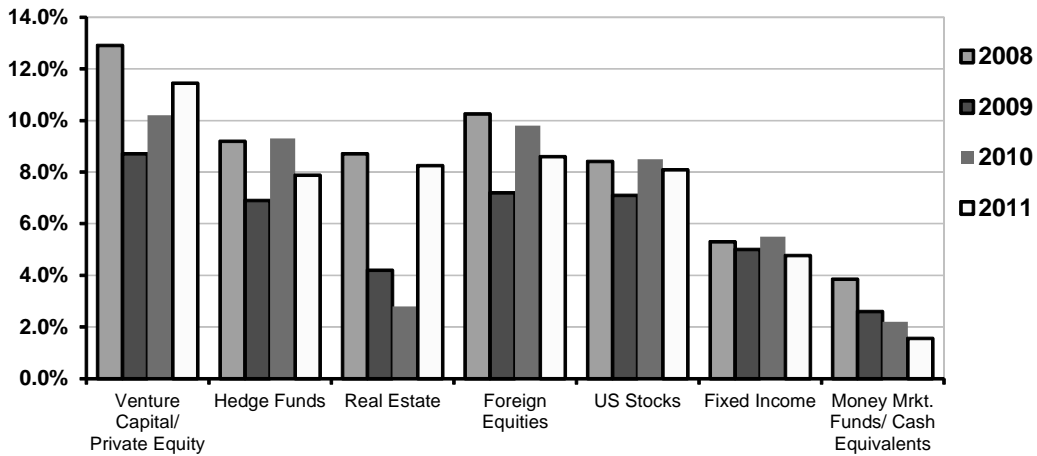


Source: NCREIF \* Price appreciation only

<sup>4</sup> Consensus Forecast Survey, Q3 2011, Pension Real Estate Association

During the past decade, to some extent, real estate was increasingly viewed as being "the best of the worst" investment alternative. Even with the negative returns during the recession, NAREIT equity returns and NCREIF returns competed with those of stocks and bonds over 3 and 5 year analysis periods. This is particularly important to pension funds that are expected to be fully invested and yet are constrained in selecting between relatively few capital market alternatives (See Exhibit 4). Investors currently have renewed expectations for real estate returns.

**Exhibit 4**  
**Plan Sponsor Historical Return Expectations**



Source: Institutional Real Estate, Inc., 2011 Plan Sponsor Survey

As a result of the recovering market conditions, pension plans have increased their investment return assumptions for all asset classes. In addition, the 2011 Plan Sponsor Survey conducted by Institutional Real Estate, Inc. and Kingsley Associates indicates that pension plans have started to reallocate some of their portfolio investment targets to reflect today's new investment environment. Specifically, current Pension Fund Real Estate target allocations stand at 10.33%. However, allocations to real estate remain under-allocated in 2011 (See Exhibit 5).

**Exhibit 5**  
**Plan Sponsor Investment Allocations, 2011**

Sector	2011 Mean (%)			2010
	Target	Actual	+/-	+/-
<b>Real Estate</b>	<b>10.33</b>	<b>8.53</b>	<b>(1.80)</b>	<b>(1.03)</b>
US Stocks	27.84	28.71	0.87	1.00
Foreign Equities	17.50	17.79	0.28	(0.79)
Fixed Income	24.78	25.12	0.34	(0.03)
Venture Capital / Private Equity	8.07	8.11	0.04	(0.36)
Money Market Funds / Cash Equity	1.22	1.76	0.55	1.59
Hedge Funds	7.01	6.40	(0.61)	(0.35)

Source: Institutional Real Estate, Inc., 2011 Plan Sponsor Survey

One of the more interesting observations is that plan sponsors are no longer over-allocated to real estate as a percentage of their total portfolios, as was the case in 2009.

Exhibit 6 represents pension plans' expected capital flows to investment managers in 2011 and the break down between the various types of real estate investment vehicles and styles targeted.

**Exhibit 6**

**Expected Capital Flows To Investment Managers, 2010**

Sector	Mean (%)		Projected Capital Flows
	2010	2011	2011
Private Equity (Core / Core Plus)	43.6	22.4	\$6.8B
Private Equity (Value-Added)	17.4	25.5	\$7.8B
Private Equity (Opportunistic)	18.8	24.8	\$7.6B
REITs	1.0	7.4	\$2.3B
Private Real Estate Debt	4.9	8.7	\$2.7B
Securitized Foreign Investments	0.0	0.0	\$0.0B
Non Securitized Foreign Investments	10.0	8.7	\$2.9B
Other	4.3	2.5	\$0.8B
<b>TOTAL CAPITAL FLOWS (Billions)</b>	<b>\$35.0B</b>	<b>\$30.5B</b>	<b>\$30.5B</b>

Source: Institutional Real Estate, Inc., 2011 Plan Sponsor Survey

The importance of cash generation to fund pension liabilities is illustrated by the fact that 29.8% of real estate investment capital in 2011 is directed at core direct investments and REITs, both historically known for consistent cash returns. The survey also indicates that pension funds have increased their allocations towards value-added and opportunistic private equity in 2011, while average total capital flows dropped by \$4.5B.

Many pension real estate investors also view their real estate investments as being a solid complement to the volatility of their stock and bond portfolios. As presented in Exhibit 7, this is largely due to the low or negative correlation between real estate and financial assets. In essence, many investors believe that adding real estate to a mixed-asset portfolio can reduce volatility and enhance overall portfolio returns at a given level of risk.

**Exhibit 7: Asset Class Correlations through 2Q2011**

**5-Year Quarterly Return Correlations:**

	<u>U.S. Stock</u>	<u>U.S. Bond</u>	<u>U.S. Private Real Estate</u>	<u>U.S. Real Estate Securities</u>
U.S. Stock	1.00			
U.S. Bond	-0.14	1.00		
U.S. Private Real Estate	0.30	-0.11	1.00	
U.S. Real Estate Securities	0.78	0.03	0.23	1.00

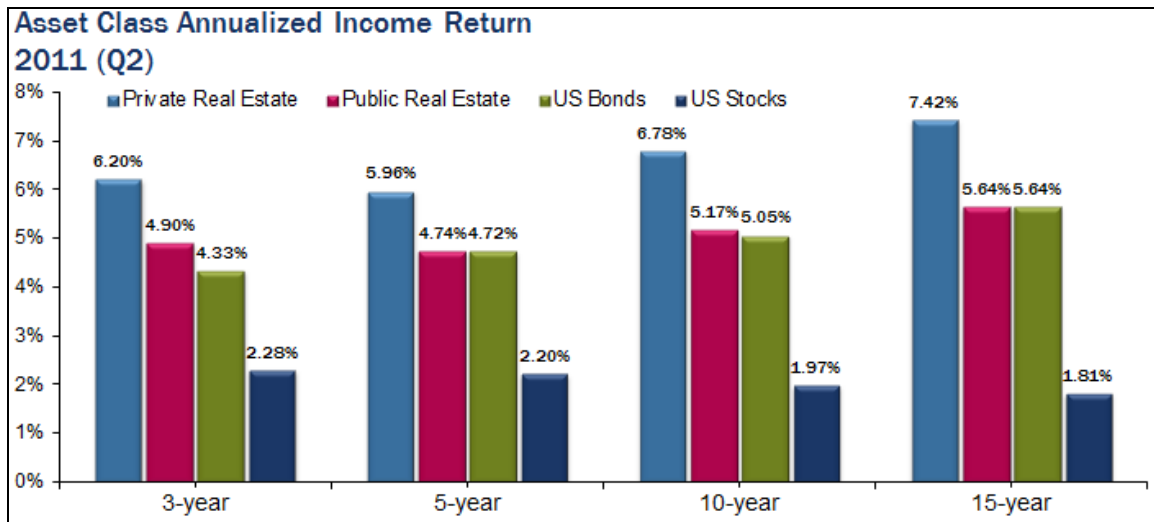
**15-Year Quarterly Return Correlations:**

	<u>U.S. Stock</u>	<u>U.S. Bond</u>	<u>U.S. Private Real Estate</u>	<u>U.S. Real Estate Securities</u>
U.S. Stock	1.00			
U.S. Bond	-0.31	1.00		
U.S. Private Real Estate	0.23	-0.07	1.00	
U.S. Real Estate Securities	0.57	-0.01	0.19	1.00

Source: June 30 2011: NCREIF-NPI Property Index; Dow Jones Wilshire Real Estate Securities Index from Wilshire Associates; Standards & Poor's 500; Merrill Lynch Government/ Corporate Bond Index; Heitman Research

Pension funds are also attracted to real estate because of the large cash component of the annual return, which helps in meeting funding obligations to their beneficiaries (Exhibit 8). As we know so well, these obligations have been growing over the last few years, largely due to the increased number of baby boomers reaching retirement age, and are expected to increase even more as their ranks swell over the next 10 years.

**Exhibit 8: Asset Class Annualized Income Return through 2Q2011**



Source: NCREIF-NPI Property Index; Dow Jones Wilshire Real Estate Securities Index from Wilshire Associates; Standards & Poor's 500; Merrill Lynch Government/ Corporate Bond Index; Heitman Research

**Investment strategies**

In placing real estate equity, pension investors seek out one or more real estate investment strategies or styles generally based on the level of risk and anticipated investment return. While these strategies are not always clearly defined, they usually break down as follows:

**Core:** Generally viewed as being investments in Class A office buildings, shopping centers, industrial, and apartment properties in major metropolitan areas. Core investments generally have no leverage or low levels (< 50%). Historical expected investment returns: 8% -10%. A large component of this return is in the form of cash flow.

**Value Added:** Investments requiring some form of higher risk activity in order to create value. Activities may involve re-development, leverage (50% - 65% of value), smaller metro areas, or more risky property types such as hotels, power centers, etc. Historical expected investment returns: 12% - 15%.

**Opportunistic Investments:** Generally, no restriction on the location (including non-US), age, or type of property. Investments may involve very high levels of leverage (70% or more), mezzanine financing, and in some cases, entity investing. Ground up development is not unusual. Often involves shorter holding periods (3 - 5 years). Historical expected investment returns: 15% - 20+%.

**Investment preferences:** Exhibit 9 indicates pension funds' ranking of property types and markets based on interviews conducted in 2011. Apartments, industrial, CBD office, and community shopping centers continued the popularity established in recent years. Regional malls and suburban office declined in popularity, largely as a result of reduced investment returns.

**Exhibit 9**  
**Property Type Preferences and Market Type Preferences for Investment, 2011**

<u>Property Type</u>	<u>Rating</u>	<u>Geographic Location</u>	<u>Rating</u>
Apartments (Moderate Income)	6.20	Washington DC	7.01
Apartments (High Income)	5.57	New York	6.56
Warehouse Industrial	5.20	San Francisco	6.34
CBD Office	5.08	Austin	6.29
Neigh/Community Shopping Centers	5.00	Boston	6.20
Full-Service Hotels	4.77	Seattle	6.09
Limited-Service Hotels	4.67	San Jose	6.08
R&D Industrial	4.63	Houston	6.02
Regional Malls	4.06	Los Angeles	5.84
Power Centers	4.04	San Diego	5.63
Suburban Office	3.99	Denver	5.58

10.0 = "Excellent"; 0.0 = "Abysmal"

Source: Emerging Trends in Real Estate 2011, Price Waterhouse Coopers and ULI

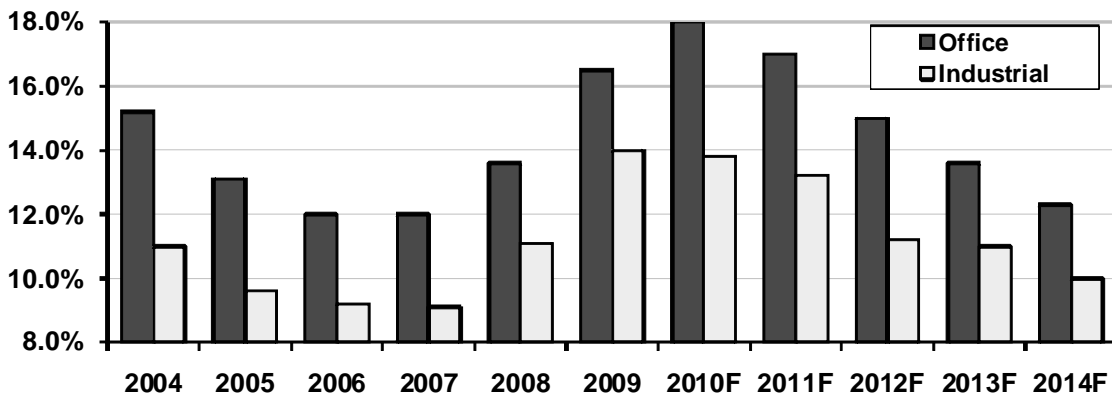


It is interesting to note that nine of the top eleven market areas are "constrained" markets in which real estate supply is restricted as an integral part of public policy. This is in direct contrast to "commodity markets" where the emphasis is on job formation, with real estate being viewed largely as a factor of production.<sup>5</sup> In commodity markets, real estate returns are often adversely impacted by the desire to keep down production costs, such as rent. This is accomplished by increasing levels of new construction, leading to higher vacancy factors and ultimately lower rents.

**Current Real Estate Market**

**Vacancy rates:** Largely as a result of the rapid decline in US jobs and the retrenchment of companies attempting to cope with the recession, office and industrial vacancy began increasing rapidly in 2008 and continued increasing well into 2010 (Exhibit10).

**Exhibit 10  
Vacancy Rates, 2004-2014**



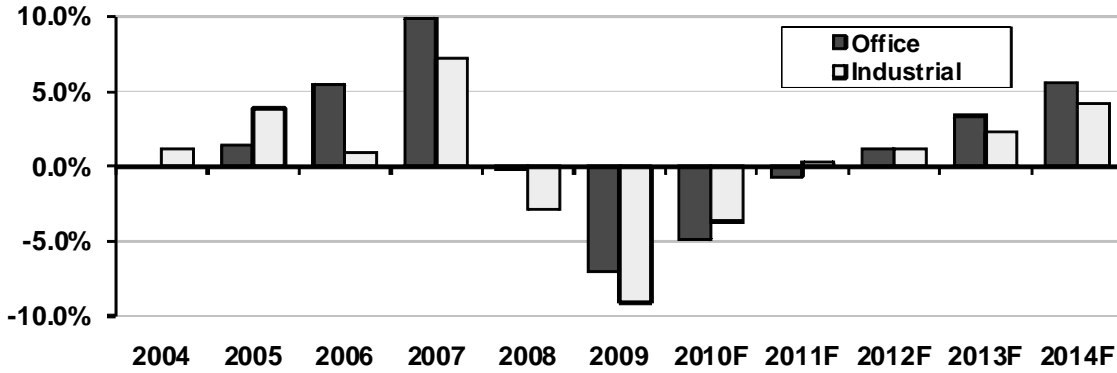
Source: Real Estate Outlook, Spring 2010, Kennedy Associates

**Rental rates:** Increasing vacancies began placing pressure on office rental rates almost immediately, and, to a lesser extent, industrial properties which tend to have fewer employees per square foot of space (Exhibit 11).

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<sup>5</sup> Houston and Austin are examples of commodity markets.

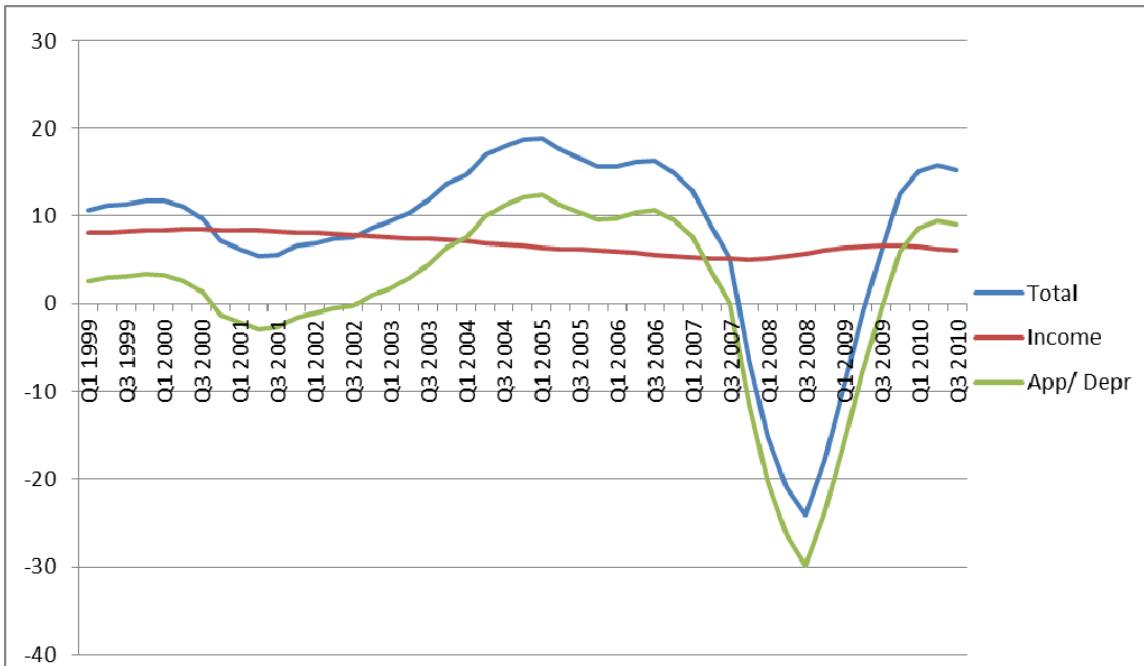
**Exhibit 11**  
**Annual Rent Growth, 2004-2014**



Source: Real Estate Outlook, Spring 2010, Kennedy Associates

**Investment Returns:** With increasing vacancies and declining rents, it wasn't long before investment returns began turning down in 2007 (Exhibit 12). Subsequently, they started to rise in early 2010 and are now reaching levels similar to before 2007.

**Exhibit 12**  
**NCREIF Property Index Returns (1Q99 – 3Q11)**



Source: NCREIF – Detail Spreadsheet, All Properties Q3 2011

This rebound in 1-Year returns impacted all property types, with a significant level of recovery seen in the last year (Exhibit 13).

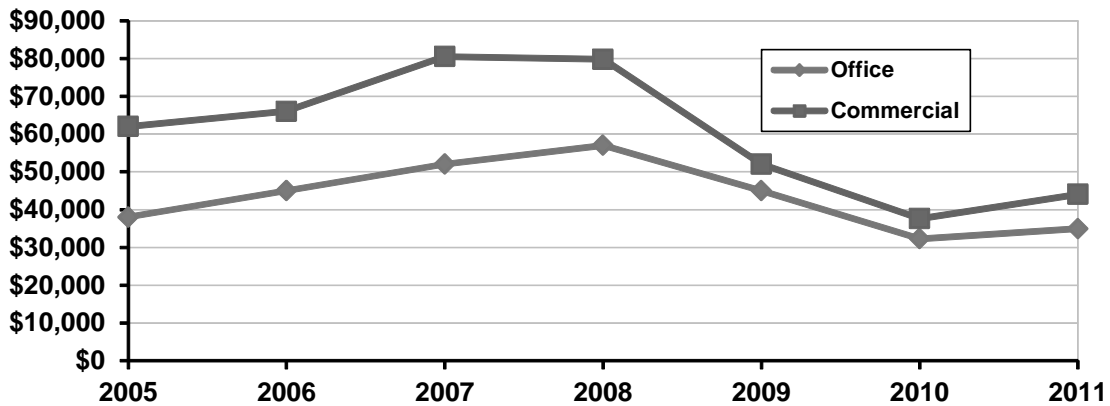
**Exhibit 13**  
**NCREIF Investment Returns by Property Type September 30, 2011**

ANNUAL RETURNS (TOTAL)				
Property Type	1-Year	3-Year	10-Year	20-Year
NPI Index	16.73%	(1.02%)	7.80%	7.54%
Apartment	18.03%	0.43%	7.80%	8.80%
Hotel	12.58%	(5.02%)	6.34%	8.79%
Industrial	14.59%	(2.27%)	7.18%	7.87%
Office	15.33%	(2.64%)	6.92%	6.93%
Retail	15.30%	1.38%	10.24%	7.93%

Source: NCREIF - Detail Spreadsheet, All Properties Q3 2011

**New Construction:** Historically, negative changes in the real estate market have led to a decline in new construction. As outlined in Exhibit 14, commercial construction (composed of industrial and retail) was the first to turn down in 2007, followed by office in 2008. Fortunately new construction slowed before it could add to the supply, which would have further depressed the commercial market.

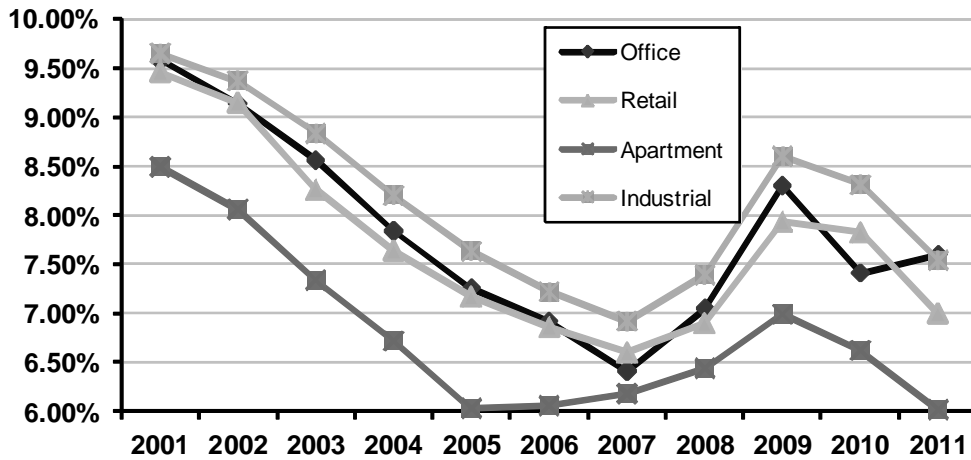
**Exhibit 14**  
**Value of Construction Put in Place**  
 (Current dollars in Millions)



Source: U.S. Census Bureau, NAHB

**Cap Rates:** The ease with which capital was available during 2001-2008 resulted in cap-rate compression, which led to increases in pricing just as the fundamentals of real estate were eroding. This eventually resulted in a real estate bubble that burst in 2007 (Exhibit 15) when cap rates rose and values dropped precipitously. During 2011, cap rates have started to decline again, with apartments already reaching pre-bubble levels.

**Exhibit 15**  
**Capitalization Rates (2001-2009)**



Source: Pension Real Estate Association, Compendium of Statistics, 2011

**Foreign Investors:**

After bottoming out at 23% in 2006, the percentage of foreign investors stating that the US will provide the best opportunity for capital appreciation rose to 65%, according to the results of a recent survey conducted by the Association of Foreign Investors in Real Estate (AFIRE).<sup>6</sup> Additionally, 72% of all survey respondents planned to increase their investment in US real estate in 2011. Seventy three percent (73.0%) of the survey respondents indicated that it was either “somewhat” or “very difficult” to find attractive real estate investment opportunities during the past year. This may be the reason these investors failed to meet their targeted US investment allocations for 2010.

That said, the respondents remained extremely positive about US real estate, ranking it number one in offering the most stable and secure real estate investments and the best opportunity for capital appreciation. As for the most attractive US property markets, the respondents’ preferences were New York, Washington, D.C., Boston, San Francisco, and Los Angeles in that order. The most favored property types were Multifamily, Retail, Hotels, Office and Industrial/R&D, in order of preference.

Of course, any economic analysis must consider the challenges facing the Euro and EU. The Greece debt crisis, while well documented, has not as of yet been resolved. As a result, the global credit markets have pulled back and although the CMBS market staged a comeback early in the year, progress has currently stalled.

**Future Outlook:** Despite the current market challenges, some encouraging signs in the real estate market appear to be emerging, particularly in the multi-family residential sector where

<sup>6</sup> 2011 AFIRE Foreign Investment Survey.

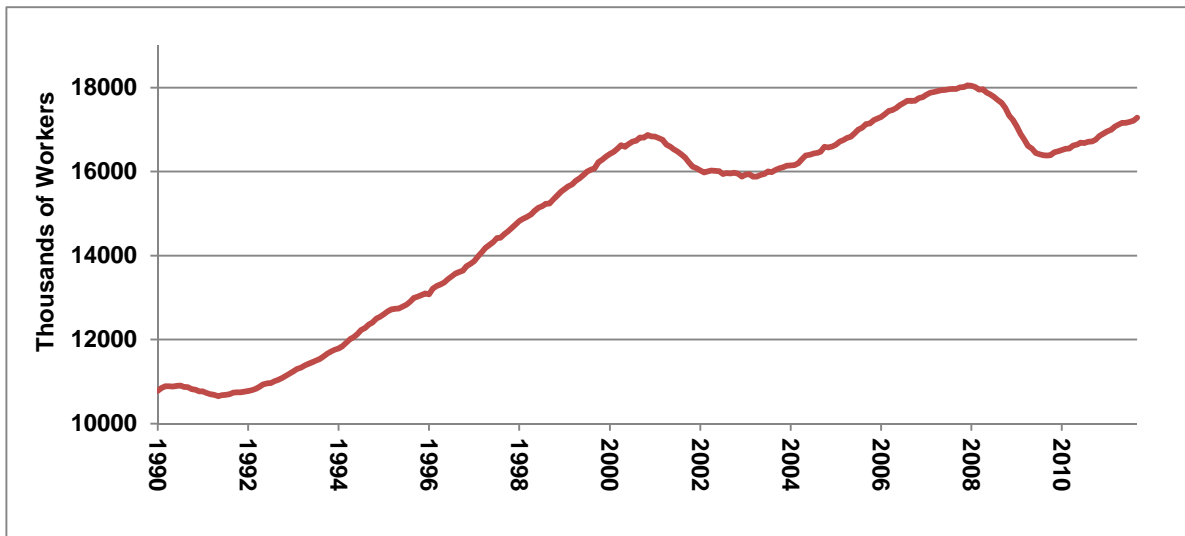
rents have been rising and cap rates falling in response to significant investor demand. Across all commercial real estate sectors occupancy has remained flat as unemployment has not vigorously rebounded, NOI is still declining in many markets, and transaction activity moderated from earlier in the year.

Since office is the sector in which we are most under-invested and could be a top new investment priority, it would be beneficial to look at it a little more closely. At year-end 2010, national office vacancy stood at 16.7%, almost 5.5% higher than the level of the market at the end of 2006.<sup>7</sup>

Metros most vulnerable to the deteriorating market conditions were those with economies more reliant on one or more of the interrelated housing, finance, real estate and construction sectors. With double-digit rent declines now in the past, effective rents are starting to rise slowly from the bottom, bringing the total peak-to-trough decline to around 25 percent. Free rent remains a given, while tenant improvement concessions have eased as costs have come down and inflated packages make little economic sense at today's rent levels.<sup>7</sup>

The big question overhanging the office market is the outlook for jobs (Exhibit 16). Although layoffs are less frequent and some firms are hiring, there is still no signs of a rapid recovery. As a result, net absorption of office space continues to be negative to stable.

**Exhibit 16**  
**US Employment Business and Professional Services 1990 – September 2011**



Source: Bureau of Labor Statistics

### ***Recommendations***

With all of this market uncertainty, this is probably the most difficult real estate strategy memo we have ever written. The issues we must deal with include:

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<sup>7</sup> 2011 U.S. Real Estate Investment Outlook and Market Perspective, RREEF, June 2011

- 2012 real estate capital allocation
- Risk level allocation (e.g. core, valued added, opportunistic)
- Property type allocations
- Geographic market preferences
- Anticipated investment returns by property type
- Impact of continued sluggish economic recovery and slow job growth

**Real estate allocation:** We recommend that... (Eleanor, it's all yours from here)

**Continued from page 1 of the case:**

Eleanor put down the draft memo and began to collect her thoughts about how to approach the recommendations. She was well aware of the desire of some Board members to increase the real estate allocation, but wanted to be sure that allocation to specific property types and asset classes was fully vetted. She cancelled her dinner plans, ordered a pizza and diet Pepsi, and began struggling with her final recommendations. She knew it would be another all-nighter.

***Questions for Discussion:***

Questions that should be addressed in this case include:

- 1. What should be BarSTRS 2012 real estate capital allocation? The current real estate investment is slightly over 4.5% of the total portfolio. Should this investment level be increased?**
- 2. What should be the level of allocation to each level of risk (e.g. core, value added, opportunistic)?**
- 3. What should be the Plan's property type allocations?**
- 4. Should there be a geographic market preference? If so, which markets should be selected and why?**
- 5. What is the current market situation in real estate? How should it influence (if at all) BarSTRS strategic plan?**
- 6. What should be the timing of implementing the new investment initiatives?**
- 7. How should the current/expected sluggish recovery in job growth affect the strategy recommendation?**

Please use these questions as a guide and not a format or a reflection of all of the questions that need to be addressed by the case.

## References

- Adams, R. and S.Y. Xu. The Road to Recovery—Paved with Opportunities. RREEF Research, October 2010, 76.
- Anson, M.J.P., S. Hudson-Wilson, and F.J. Fabozzi. Privately Traded Real Estate Equity. *Journal of Portfolio Management*, 2005, 40:4, 109–13.
- Aviva Investors. North America Real Estate Market Report. Summer 2010.
- Craft, T.M. Impact of Pension Plan Liabilities on Real Estate Investment. *The Journal of Portfolio Management*, 2005, 40:4, 23–9.
- Emerging Trends in Real Estate 2011*. Pwc and The Urban Land Institute. June 2011.
- Fisher, J.D. New Strategies for Commercial Real Estate Investment and Risk Management. *The Journal of Portfolio Management*. 2005, 40:4, 154–61.
- Fisher, J.D. and W.N. Goetzmann. The Performance of Real Estate Portfolios. *The Journal of Portfolio Management*, 2005, 40:4, 32–45.
- Florance, A. C., N. G. Miller, J. Spivey and R. Peng. Slicing, Dicing, and scoping the Size of the U.S. Commercial Real Estate Market. *Journal of Real Estate Portfolio Management*, 2010, 16:2, 111-127.
- Georgiev, G., B. Gupta, and T. Kunkel. Benefits of Real Estate Investment. *The Journal of Portfolio Management*, 2003, 29, 28–34.
- Hahn, T.C., D. Geltner, and N. Gerado-Leitz. Real Estate Opportunity Funds. *The Journal of Portfolio Management*. 2005, 40:4, 143–53.
- Hudson-Wilson, S., F.J. Fabozzi, and J. Gordon. Why Real Estate? *The Journal of Portfolio Management*, 2005, 40:4, 12–21.
- Kaiser, R.W. Analyzing Real Estate Portfolio Returns. *The Journal of Portfolio Management*. 2005, 40:4, 134–42.
- Pension Real Estate Association, *Consensus Forecast Survey*, Q3 2011
- RREEF, *2011 U.S. Real Estate Investment Outlook and Market Perspective*, June 2011
- RERC Real Estate Report. *The Best, the Distressed, and the Rest*. 2010, 39:2.
- [www.rec.com](http://www.rec.com).
- RERC Real Estate Report. *Search for Safety*. 2011, 40:2 [www.rec.com](http://www.rec.com).
- Sivitanides, P., R. Torto, and W.C. Wheaton. Real Estate Market Fundamentals and Asset Pricing. *The Journal of Portfolio Management*. 2003, 38:4, 234–55.
- Wheaton, W.C. and G. Nechayev. Does Location Matter? Do Property Fundamentals Vary within Markets and is this Reflected in Pricing. *The Journal of Portfolio Management*, 2005, 40:4, 1–9.
- Wurtzebach, C.H. and J. McMahan. Victory Island Public Employees' Retirement System. *Journal of Real Estate Practice and Education*. 2011, 14:1, 71-87.

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