Structuring Public REIT-sponsored Private Capital Fund: The Case of US Industrial and Retail REITs

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ABSTRACT

The private capital business for public REITs was started by Kimco Realty, Developer Diversified, AMB and ProLogis during the years 1998-2000, at the time when the public equity was not easily available. Over the past decade, public REITs have used their private capital funds to take out REITs' existing portfolios and newly completed projects, to finance land purchases and development pipelines, and to diversify their rental income into a fee income business.

Given the limited disclosure of public REITs in their private capital funds and a lack of standardized industry terms and practice applicable to this field, this research can be described a fact-finding study. By studying each of the private capital funds managed by 7 leading REIT managers, I categorize these funds in terms of fund type, inception year, fund life, fund style strategy, investment target, geographical focus, fund terms, target leverage, key investors, parent REIT's ownership, gross fund assets, distribution frequent and incentive design.

In addition, I argue that the private capital business of public REITs would not have grown successfully without fuel of the merchant development activities under the public REIT's framework. This is particularly true with respect to the industrial REIT sector. I carefully examine the case of ProLogis' business model, comprised of three indispensible pillars - merchant building, fund management and core portfolio, to substantiate this claim.

By creating a new structure diagram of "public REIT-sponsored private capital fund", I demonstrate the "co-opetition" phenomenon among pension funds, real estate investment managers ("REIMs") and public REIT private capital funds in the value chain of the institutional real estate investment. The concept can be described by the fact that two primary investors (pension funds and REIMs) of this field could themselves replicate what public REIT private capital funds are doing. I also relate this observation to the real estate M&A deals that occurred in 2007, where REIMs were observed to "arbitrage" between public REIT and private real estate markets by taking the public REITs private.

Moving forward, public REIT-sponsored private capital fund is well positioned to grow as it complements a niche market for pension funds and REIMs to add private real estate exposure in a predictable and sizeable format. However, concerns on above 75% FFO coming from merchant development and private capital for leading REITs (such as ProLogis) may trigger regulatory scrutiny from Internal Revenue Service, as this represents a huge deviation from original purpose of being a REIT – to act as passive investor for core portfolio holding and pay out as dividends most of its net income.

In an extreme scenario, REITs like ProLogis may voluntarily or involuntarily spin off their private capital business. Under current capital market conditions, this might actually unlock public REITs' shareholder value. Referencing from mid-cap asset managers' comparable (such as Eaton Vance and Janus Capital), REITs' private capital business can be valued from the 4x price-earnings multiple to a likely 20-30x range.

Thesis Supervisor: Lynn Fisher
Title: Associate Professor of Real Estate

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Never had I thought I could have completed my real estate study at MIT Center for Real Estate, one of the best master-level real estate programs in the U.S.

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Structuring Public REIT-sponsored Private Capital Fund: The Case of US Industrial and Retail REITs

Chapter 1 Introduction

1.1 Purpose of the Thesis

I am investigating private capital funds sponsored by public Real Estate Investment Trusts ("REITs") in order to show how the funds are structured and managed, and why, so that the reader will understand why public REIT private capital funds ("the field") came into existence, what role they currently play in the REIT industry and what challenges this form of REIT organization faces.

Given the limited disclosure of public REITs in their private capital funds and a lack of standardized industry terms and practice, I describe the thesis to be more a fact finding mission. I do not target the research to be 100% academic real estate or corporate finance research. The intended readers are industry participants, who care about how this field has been evolving for the past decade and what this particular field will become in next 3-5 year time frame.

I am also a beneficiary of this research, as the research serves my self-study purpose of understanding the public REIT industry, real estate private capital funds and the combination of both in public REIT-sponsored private capital funds. This particular area is where I would like to explore my next career upon graduation.

Inspired by Mr. Hamid R. Moghadam's, Chairman/CEO/Founder of AMB Property Corporation, speech on AMB business and its private capital funds at MIT Center for Real Estate on November 6, 2007, I chose AMB Capital Partners, the private capital arm of AMB Property Corporation, as the starting point of this research. I handed in a term paper on AMB Capital Partners, for a Harvard Law School elective class on "Real Estate Transactions" in early May, 2008. The class was taught by Professor Kathleen Smalley.

In next three months, I expanded the term paper into a master-level thesis on "Structuring Public REIT-sponsored Private Capital Fund: The Case of US Industrial and Retail REITs", under the instruction of Dr. Lynn Fisher at MIT Center for Real Estate. As a student at MIT, I have had the luxury to take interview with key industry participants, who have helped me clarify many of research questions.

In my thesis, I will show this particular field (private capital under public REITs) has yet to be fully understood by industry organizations, and in fact, the terminology has not been standardized. Various organizations[1] have provided industry statistics or house comment on this field every now and then. There is no organization to date that has provided a guide for institutional investors to understand the nuts and bolts of the private capital business under public REITs.

By creating a new structure diagram of "public REIT-sponsored private capital fund", I will demonstrate the "co-opetition" phenomenon among pension funds, real estate investment managers ("REIMs") and public REIT private capital funds in the value chain of the institutional real estate investment. The concept can be described by the fact that two primary investors (pension funds and REIMs) of this field could themselves replicate what public REIT private capital funds are doing. I will also relate this observation in the context of the real estate M&A deals that occurred in 2007, where REIMs were observed to "arbitrage" between public REIT and private real estate markets by taking the public REITs private.

I hope the thesis shall serve as a good first attempt to summarize the industry facts with respect to public REIT-sponsored private capital funds. To my knowledge, this topic has not been fully explored in the academic literature in the field.

1.2 Research Motivation

The primary question investigated in this thesis is how public REIT-sponsored private capital funds are structured and managed in order to fund the growth of public REITs..

The private capital business for public REITs was started during year 1998-2000, by Kimco Realty, Developer Diversified, AMB and ProLogis at the time when the public equity was not easily available. Over the past decade, public REITs have been shown to use their private capital funds to take out REITs' existing portfolios and newly completed projects, to finance land purchases and development pipelines, and to diversify their rental income into a fee income business.

Figure 1.1 summarizes the leading public REITs who are actively involved with managing private capital funds. Over the years, public REITs have grown their funds to the point where they are now meaningful in size (gross fund assets > REIT market cap). The current average REITs' equity share in the private capital funds falls between 10%-25%, a significant drop from 50% during 1998-2000.

[1] Includes NAREIT, NCREIF, The Townsend Group, Real Estate Alert, The Institutional Real Estate Letter, Real Estate Analytics, Pension Real Estate Association, Moody's Investors Service, and Fitch Rating.

Figure 1.1: Gross Private Fund Assets for 7 Studied Public REITs

Company	Ticker	REIT sector	Mkt Cap ($Bn)	Price ($)	REIT Shares (Mn Shares)	REIT Total Liabilities ($ Mn)	REIT Total Assets ($ Mn)	Gross Fund Assets ($ Mn)	Typical REIT's Share in Private Capital Fund
ProLogis	PLD	Industrial	13.60	51.87	262.15	12,909	20,629	20,511	20%
AMB Property	AMB	Industrial	4.82	49.23	97.98	4,998	7,689	7,211	20%
First Industrial	FR	Industrial	1.17	26.40	44.30	2,323	3,266	2,585	10-15%
Weingarten Realty Investors	WRI	Retail (and Industrial)	2.45	29.18	83.95	3,592	5,044	1,827	20-25%
Kimco Realty	KIM	Retail	8.64	34.06	253.71	5,551	9,432	9,699	15-20%
Regency Centers	REG	Retail	3.91	55.90	69.93	2,355	4,196	4,664	16-25%
Developers Diversified Realty	DDR	Retail	3.92	32.69	119.78	6,212	9,154	11,222	10-20%

Source: Priced on July 3, 2008 on Google Finance; 2008 1Q reports for 7 REITs.

Figure 1.2 suggests private capital income in 2007 for the 7 leading REIT private capital manager has accounted a meaningful average 12% share for the parents' FFO. These 7 leading REITs were identified by studying public REIT financial reports and by various equity research reports. Three of them are classified under industrial REIT sector; the rest four are under retail REIT sector. It is interesting to note that private capital fund in this field has yet played an integral part in the business growth of other REIT sectors (such as residential, office, hotel, mixed, self-storage and healthcare).

Figure 1.2: Private Capital Income as % of Net Income of Public REITs

Item for Yr 2007 (Unit: $Mn)	PLD	AMB	FR	WRI	KIM	REG	DDR
Net Income	1,048.9	295.5	131.7	212.6	423.2	184.0	225.1
FFO	1,258.4	365.5	234.7	272.1	669.8	293.9	465.0
FFO/Share	4.61	3.51	4.64	3.13	2.59	4.20	3.79
Fee Income from Private Capital	104.72	31.71	27.08	8.20	54.84	32.97	13.73
Private Capital Income as % of Net Income	**9.98%**	**10.73%**	**20.56%**	**3.86%**	**12.96%**	**17.92%**	**6.10%**

Source: 4Q 2007 financial reports for 7 REITs

Private capital income usually includes two parts – stable fee income (including property management, leasing fees, acquisition fees, development fees, disposition fees, fund asset management fees) and variable fees(i.e., incentive fees or promote) – on a fund-by-fund basis depending on each fund's specific fee arrangements with investment partners.

Public REITs' private capital funds have been seen partnering mostly with pension funds and real estate

investment managers, rather than local developers (summarized in Figure 1.3). This marks a distinction: REITs usually enter into a project-level joint ventures with local developers, in addition to their self-owned development projects. Simon Property, the largest retail REIT in the US with market capitalization at US$ 19.8 Bn (priced on July 1, 2008), takes the project-level JV approach with various local developers, and no third party fund information is reported on its public financial statement.

Figure 1.3: Classification of Private Capital Fund under Public REITs

Fund Type	JV Program	Purpose	Fund Sample	REIT Manager	Investor Partners
Core	Take Out Vehicles	Take out existing REIT's portfolios or newly completed assets	Regency Retail Partners	Regency Center	Several Institutional Investors
			ProLogis North American Industrial Fund	ProLogis	Several Institutional Investors ; GIC Real Estate leads
Value-Added	Specified acquisition program	To acquire a REIT or identified properties in a specific geographical coverage	Kimco Prudential JV (To acquire Pan Pacific Retail Properties Inc.)	Kimco	Prudential Real Estate Investors
			TIAA Florida Retail LLC	Weingarten Realty	TIAA-CREF
Opportunistic	Strategic Land and Development in a new market	Land acquire land suitable for development projects	AMB-SGP Mexico	AMB	GIC Real Estate
			FirstCal 3 LLC	First Industrial	California State Teachers' Retirement System (CalSTRS)

Source: 1Q 2008 reports for 7 studied REITs; the research

In the research, I do not aim at analyzing the type of project-level joint ventures. Rationale behind REIT's development project-level JV with local developers is generally believed to tap into new market or leverage local developers' specific knowledge with respect to either permitting or local market. That shall be the reason why I do not observe public REITs to structure development JV funds with pension funds or REIMs, because these two institutional investors nearly have no local development skills.

To make the terminology consistent within the whole research, I will use "private capital" to describe the combination of "single-partner joint venture" and "commingled fund". The term "JV/Fund", used by Moody's Investors Service, is equivalent to what I describe as "private capital". I may use these two terms interchangeably in the research. Typically, "JV" used in some research reports (including Moody's and PREA) refers to project-level joint ventures. This type of "JV" will not be covered in my research.

Benefits of the private capital business to a REIT may include leverage shareholder capital into REIT-managed funds, capital recycled into new development, economics of scale for asset management, stable fund management fee income and potential for incentive reward for outperformance, and developing strategic partnerships with institutional investors.

The benefits to the institutional investors of co-investing with a public REIT have been attributed to access to the best real estate development and management teams, alignment of interests, depth of senior management and established corporate structures, and predicable and sizeable pipeline deals.

Despite the potential benefits, some considerations need to be taken into account by investors in these types of private capital deals, such as potential conflict of interest, exclusivity, geographical focus, right of first refusal, rotational policy risk, appraisal value, control and monitoring, GAAP-consolidation, exit strategy, buy/sell provision, and the fiduciary role of public REITs.

1.3 Research Questions

The study will attempt to answer the following research questions.

1. Legal and Structure Issues

1.1 How do these private capital funds fit in the Up-REIT legal structure or Down-REIT?

1.2 What are the pros and cons for public REITs to serve as the "general partner" for the funds?

1.3 How do public REITs make fee income from the private capital funds?

1.4 What is Taxable REIT Subsidiary ("TRS")? How does TRS contribute to the growth of this field?

1.5 How do public REITs solve potential conflict of interest, exclusivity issues, GAAP-consolidation and portfolio exit issues?

1.6 What is merchant development? What is merchant development's role in this field?

1.7 What is the limitation (cap) for private capital funds managed by public REITs? Will equity size of the public REITs be the main constraint, or some other factors (such as development pipeline)?

2. REIT Industry vs. Institutional Real Estate Investment Field

2.1 Why public REITs prefer to raise money through private capital as opposed to making a secondary offering in the public capital markets?

2.2 What is the rationale for pension funds and REIMs to make investment in REIT-sponsored private capital funds?

2.3 How much real estate was allocated to this field from pension funds and REIMs?

2.4 Why are these private capital funds more commonly seen in industrial and retail REIT sectors and not quite as often seen in residential REIT and office REIT sectors?

2.5 Which private capital model works better for public REITs – "take-out vehicle", "strategic acquisition program "land acquisition and development vehicle"? What is public REITs' consideration for various fund vehicles?

2.6 What is the investment partnership's perspective on various fund terms (open-end vs. closed-end; fixed fund life vs. perpetual)?

2.7 Why REIMs is the preferred choice for pension funds, rather than public REIT-sponsored private capital funds?

2.8 What is the future for public REIT-sponsored private capital fund?

2.9 Will the public REIT private capital platform spillover to other REIT sector leaders?

3. Bottom line to REITs

3.1 Does private capital business increase REITs' earnings volatility?

3.2 How do public REITs build track record to growth their private capital funds?

3.3 What is the organization chart for private capital fund business under public REITs?

3.4 What is the real cost to run private capital business – management time, separate operational structure, etc?

3.5 How is the private capital business segment valued in public REITs? What are the reasonable earnings multiples for private capital income in public REITs? Do we need to assign different multiples for fixed management fees and for more volatile incentive fees?

1.4 Research Methodology

Research method, in principle, will be qualitative so as to better describe the private capital strategy of 7 studied public REITs. Numerical sample and financial statement of public REITs will also be used. Study and industry interview in my research will cover as following:

- Literature Review Study will include academic research, REIT securities rules, IRS Code, practical journals, public financial reports for listing REITs, and prospectus for offshore fund listings (including Macquarie DDR Trust, Macquarie Countrywide Trust, and ProLogis European Properties Fund).

- Industry Interview will cover private capital managers (under REITs), REIT lawyers, pension funds, real estate investment managers, real estate fund of fund managers, and industry associations (including Pension Real Estate Association and NCREIF).

- Real Estate Investment Manager Study will include GIC Real Estate, GE Real Estate, Macquarie Real Estate, Prudential Real Estate Investors, and Morgan Stanley Real Estate.

- Pension Fund Study will cover CalSTRS and statistics from Pension Real Estate Association, Real Estate Alert, and The Institutional Real Estate Letter.

- Equity Research Report Study will be widely used, including Green Street Advisors, Merrill Lynch, Citigroup Research, Bear Sterns and JP Morgan.

1.5 Expectation

The research aims at summarizing the industry trend recently gaining momentum in the public REIT-sponsored private capital fund by answering the proposed research questions at Section 1.3. In the meantime, this study is expected to put forward a "structure diagram" for both public REITs (to act as management partners) and institutional investors (as investment partners), which fully explain the cost and benefit and strategic objectives for the two sides.

I will also make prediction about the future of public REIT's private capital fund. I conclude the research by exploring three forward-looking questions, including 1). Will the REIT private capital platform spillover to other REIT sector leaders? 2). Shall or will ProLogis turn into a fund management company? 3). How shall the private capital business valued in public REITs' setting?

Chapter 2 Evolution of Public REIT-sponsored Private Capital Business

In order to understand the evolution of public REIT-sponsored private capital fund, I look into a series of industry data and article, REIT legal structure and code, and industry comment (including rating agencies, equity research firms, pension funds and real estate investment managers).

In my view, the documentation of this field's evolution can provide a good overall picture of this niche segment under public REITs.

I hope the fact-finding work of Chapter 2 could lay a good foundation to keep exploring the other topics in Chapter 3 (Characterization of Private Capital Funds under Public REITs), in Chapter 4 (Merchant Development under Public REITs) and in Chapter 5 (Investors' Perspective).

Topics to be covered in Chapter 2 will include the following:

1. REIT Industry and its Market Capitalization
2. Start of Public REITs' Private Capital Business
3. Why Started in 1998? The Case of Kimco Income REIT
4. How Public REIT Finances its Business Growth
5. REIT Modernization Act of 1999 for Taxable REIT Subsidiary
6. Sample TRS Structure – AMB Capital Partners
7. JV/Fund Fee to Add Public REITs' Bottom Line
8. Private Equity Outpace Public Issuance in REIT Sector
9. Key Events and Remark for Public REITs' Private Capital Business
10. Industry Comment Evolution for Public REITs' Private Capital Business
11. Moody's Comment – "Funds Are an Untested Business for REITs"
12. Industry Interview Comment for Public REITs' Private Capital Business

REIT Industry and Its Market Capitalization

Since the 1960's[2], the REIT industry has grown into a group of passively managed real estate companies to fully integrated real estate investment companies that has the market capitalization of US$ 312 Bn in the end of year 2007. Figures 2.1 shows that there are four types of REITs (Equity, Mortgage and Hybrid) and in addition, REIT can be structured either as public or private. In the public REIT arena, Equity REIT accounts the majority of them in terms of market capitalization and number of listing companies, as presented in Figure 2.2.

Figure 2.1: Type of REITs

Equity	An Equity REIT is an entity that owns and operates income producing assets. Many of these companies are fully integrated organizations meaning they engage in the acquisition, development, and management of commercial real estate for their own account.
Mortgage	A Mortgage REIT is an entity that lends money to an owner of real estate and therefore does not have direct ownership of the asset.
Hybrid	A hybrid REIT is a cross between and Equity and a Mortgage REIT.
Public vs Private	REITs can either be publicly traded (most are listed on the NYSE) or privately held. According to the National Association of Real Estate Investment Trusts (the REIT sector's trade organization) there are 151 publicly traded REITs of which 118 are equity REITs, 28 are mortgage REITs and 5 are hybrid REITs as of March 2008.

Source: NAREIT (2008)

Figure 2.2: Equity Market Capitalization Outstanding for Public REITs

Year	Composite		Equity		Mortgage		Hybrid	
	# of REITs	Market Cap	# of REITs	Market Cap ($ Mn)	# of REITs	Market Cap ($ Mn)	# of REITs	Market Cap ($ Mn)
1971	34	1,494	12	332	12	571	10	592
1972	46	1,881	17	377	18	775	11	729
1973	53	1,394	20	336	22	517	11	540
1974	53	712	19	242	22	239	12	232
1975	46	900	12	276	22	312	12	312
1976	62	1,308	27	410	22	416	13	483
1977	69	1,528	32	538	19	398	18	592
1978	71	1,412	33	576	19	340	19	496
1979	71	1,754	32	744	19	377	20	633
1980	75	2,299	35	942	21	510	19	847
1981	76	2,439	36	978	21	541	19	920
1982	66	3,299	30	1,071	20	1,133	16	1,094
1983	59	4,257	26	1,469	19	1,460	14	1,329
1984	59	5,085	25	1,795	20	1,801	14	1,489
1985	82	7,674	37	3,270	32	3,162	13	1,241
1986	96	9,924	45	4,336	35	3,626	16	1,962
1987	110	9,702	53	4,759	38	3,161	19	1,782
1988	117	11,435	56	6,142	40	3,621	21	1,673

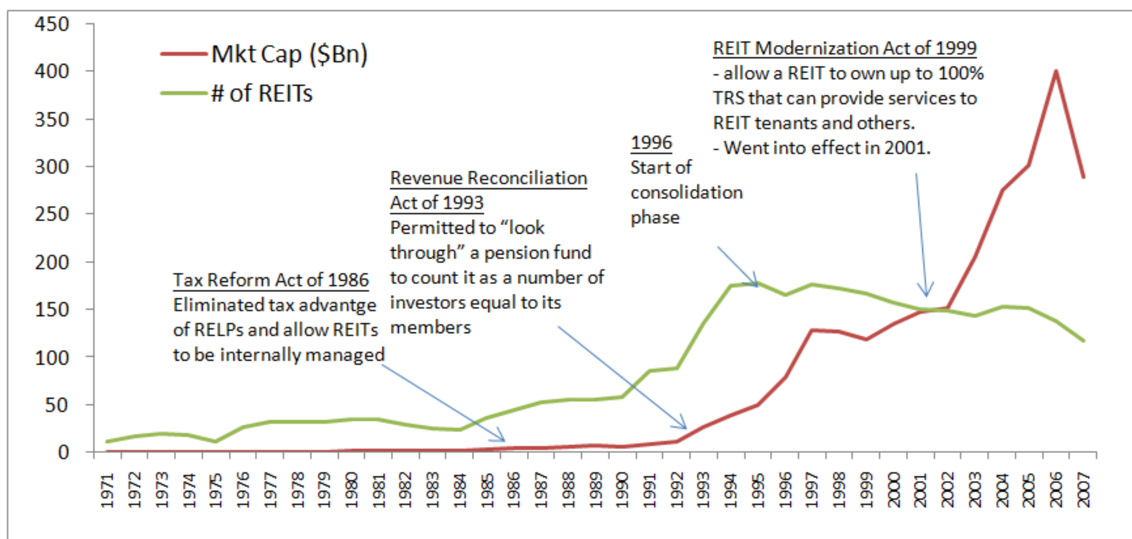
[2] Please refer detailed REIT history to Appendix 1.

1989	120	11,662	56	6,770	43	3,536	21	1,356
1990	119	8,737	58	5,552	43	2,549	18	636
1991	138	12,968	86	8,786	28	2,586	24	1,596
1992	142	15,912	89	11,171	30	2,773	23	1,968
1993	189	32,159	135	26,082	32	3,399	22	2,678
1994	226	44,306	175	38,812	29	2,503	22	2,991
1995	219	57,541	178	49,913	24	3,395	17	4,233
1996	199	88,776	166	78,302	20	4,779	13	5,696
1997	211	140,534	176	127,825	26	7,370	9	5,338
1998	210	138,301	173	126,905	28	6,481	9	4,916
1999	203	124,262	167	118,233	26	4,442	10	1,588
2000	189	138,715	158	134,431	22	1,632	9	2,652
2001	182	154,899	151	147,092	22	3,991	9	3,816
2002	176	161,937	149	151,272	20	7,146	7	3,519
2003	171	224,212	144	204,800	20	14,187	7	5,225
2004	193	307,895	153	275,291	33	25,964	7	6,639
2005	197	330,691	152	301,491	37	23,394	8	5,807
2006	183	438,071	138	400,741	38	29,195	7	8,134
2007	**152**	**312,009**	**118**	**288,695**	29	19,054	5	4,260

Source: NAREIT (2008)

118 Equity REITs account 77.6% of total public REITs and 92.5% of total market capitalization. Equity REIT's market capitalization of $312.0 Bn at 07YE has dropped 29% from 06YE at $438.1 Bn due to a series of REIT mergers and privatization in year 2007. Merrill Lynch (2008)[3] also attributed "this M&A trend due to the strict regulations of the SOX Act, which placed more cost pressure on smaller companies." Figure 2.3 illustrates the changes of REIT market capitalization vs. number of REITs.

Figure 2.3: Market Cap vs. Number of REITs



Source: NAREIT (2008), David Geltner et al. (2007)

[3] Merrill Lynch, "Nuts & Bolts: REIT Primer #3", page 29, June 3, 2008.

Figure 2.4 summarizes the breakdown of each individual REIT by product type and asset class. Retail and Industrial/Office together has the largest capitalization pie at 48.8%.

In our case analysis in the thesis, the identified leading REITs that are actively involved with private capital business mostly fall into the subcategory of Industrial (ProLogis, AMB, and First Industrial) and Shopping Centers (Kimco, DDR, Regency and Weingarten).

Kindly note that "shopping centers[4]" refers to neighborhood center (30,000 ~ 150,000 square feet, 1 or more anchors by supermarket or drug store) and community center (100,000 ~ 500,000 square feet, 2 or more anchors by discount department store, supermarket, drugstore, home improvement or large special discount apparel) types of retail. "Regional Malls" here used refers to typically malls with leasable floor area in between 400,000 ~ 800,000 square feet and with 2 or more anchors by full-line department store, junior department store, mass merchandise discount department store. Simon Property, the largest retail REIT, is categorized in regional malls.

Figure 2.4: Breakdown of REIT Sector by Product Type and Asset Class

# of REITs		REIT Sectors		Equity Mkt Cap ($ Mn)	% of Total
118		**Equity REITs**		**290,593.60**	**94.10%**
27		Industrial/Office		$69,004	22.30%
	15		Office	$36,227	11.70%
	7		***Industrial***	$25,172	8.10%
	5		Mixed	$7,605	2.50%
28		Retail		$81,875	26.50%
	15		***Shopping Centers***	$34,390	11.10%
	8		Regional Malls	$40,928	13.20%
	5		Free Standing	$6,558	2.10%
21		Residential		$42,689	13.80%
	17		Apartments	$40,847	13.20%
	4		Manufactured Homes	$1,842	0.60%
9		Diversified		$18,165	5.90%
11		Lodging/Resorts		$17,779	5.80%
4		Self Storage		$17,706	5.70%
11		Health Care		$27,082	8.80%
7		Specialty		$16,293	5.30%
5		**Hybrid REITs**		**$2,824**	**0.90%**
28		**Mortgage REITs**		**$15,516**	**5.00%**
	13		Home Financing	$10,955	3.50%
	15		Commercial Financing	$4,561	1.50%
151		**Industry Totals**		**$308,933**	**100.00%**

Source: "Nuts & Bolts: REIT Primer #3", Merrill Lynch, June 2, 2008

(1) Equity market cap, per NAREIT, does not include operating partnership units or preferred stock.
(2) Equity market cap in millions of dollars; March 31, 2008.

[4] Definition for retail format is referenced from Merrill Lynch, "Retail Quarterly", page 4, May 5, 2008.

Start of REITs' Private Capital Business

Each REIT has its own business objective to start its joint ventures and fund management programs. The joint venture movement began to evolve in the late-1990s, but there were just very few participants. Mostly JV/Funds started during year 1998-2000, where the public capital market was shut off for these REITs' secondary equity financings.

The private capital business for public retail REITs was started by Kimco Realty (1998) and Developer Diversified (1999). For industrial REIT, AMB Property (in 1998) also resumed its investment management business and set up a 50-50% fund joint venture with Erie Insurance Co. to acquire industrial properties in the U.S. Prior to AMB's IPO in 1997[5], AMB has been a real estate investment management firm since 1983. ProLogis also raised its first commingled fund in Europe, serving as a take-out vehicle for its newly developed and stabilized properties in Europe.

At the time, there was huge skepticism about these JV deals within the rating agency community, most claiming that[6] "REITs that use JVs as vehicles to bury debt and boost effective leverage, particularly where such practices cause REITs to incur debt outside of their targeted ranges".

Figure 2.5: Key Event for Public REITs' Private Capital Business (Prior to Year 2000)

Year	Key Event
1998	Kimco Realty first raised 45-55% JV fund with New York State Retirement Fund to acquire retail properties across the US.
1998	AMB Property set up a 50-50% fund joint venture with Erie Insurance Co. to acquire industrial properties in the US.
1998	DDR set up its first core take-out fund with DRA Advisors, a real estate investment manager
1998	DDR set up Coventry Real Estate Partner, a real estate investment firm joint venture with Prudential Real Estate Investors
1999	ProLogis raised a commingled fund with 7 institutional investors for ProLogis European Fund I.

Source: the Author

[5] Referenced from AMB Property Corporation – Company History available at http://www.fundinguniverse.com/company-histories/AMB-Property-Corporation-Company-History.html, accessed on July 1, 2008.

6 Jay Siegal, SVP of Moody Investors Service, "Effects of REIT JVs on Credit Ratings", National Real Estate Investor, Vol. 41 Issue 12, p34, 1p., October 1, 1999.

Why Started in 1998? The Case of Kimco Income REIT

The formation of Kimco Income REIT ("KIR", 1998) best explained the capital market environment why REITs would desire to create a portfolio of stabilized, income-producing properties matched with a low cost of private debt borrowing. KIR, a 45-55% JV established in 1998 with New York State Common Retirement Fund, is to acquire retail properties across U.S by borrowing individual non-recourse loans at 75% leverage. Kimco invested 43% in the equity and pension trusts and other investors have invested in remaining 57%. Kimco manages the properties for fee income.

According to Kimco's 2002 annual report[7], Kimco's public capital structure was about one-third debt and preferred stock, and two-thirds equity in year 1998. Kimco's average equity cost of capital is estimated at 12%. Stabilized retail property yield at 1998 (9.0%) was smaller than Kimco's average cost of capital (12%). The average interest rate on KIR's non-recourse debt is 7.05%.

This structure enable Kimco to hedge interest rate and credit risk in the long-term lease by obtaining 10-yr non-recourse mortgages on each individual shopping center. Kimco holds a non-controlling limited partnership in KIR and accounts for this investment under the equity method of accounting. I will further discuss the related controlling and accounting issue in Section 3.4 (To Consolidate or Not).

How Public REIT Finances its Business Growth?

I look into how public REITs have been financing their business growth for the past 15 years (1992-2007) and explore how and why in 1998-2000 public REITs started to seek private capital.

First data[8] obtained from NAREIT shows the IPO (Initial Public Offering) and SEO (Secondary Equity Offering) raised from public capital market during 1992-2007. The text in Figure 2.6 is adapted from David Geltner et al. (2007) in Chapter 23, page 590.

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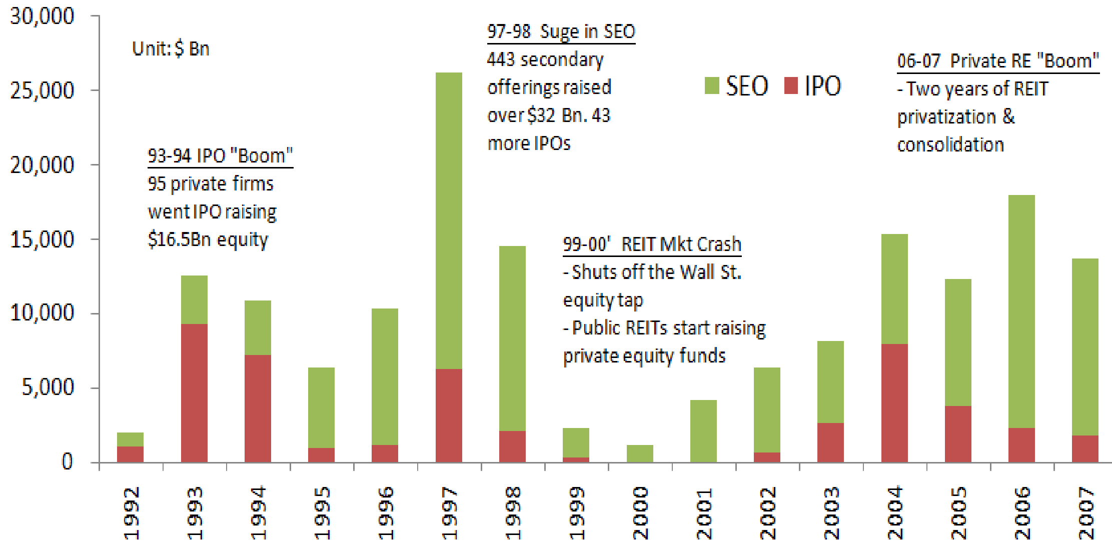
[7] At page 2-3, Milton Cooper, CEO & Chairman of Kimco Realty, stated the formation rationale for Kimco Income REIT.
[8] Please refer raw data to Appendix 2 on "Total Capital Raised from REIT Sector (1992-2007)".

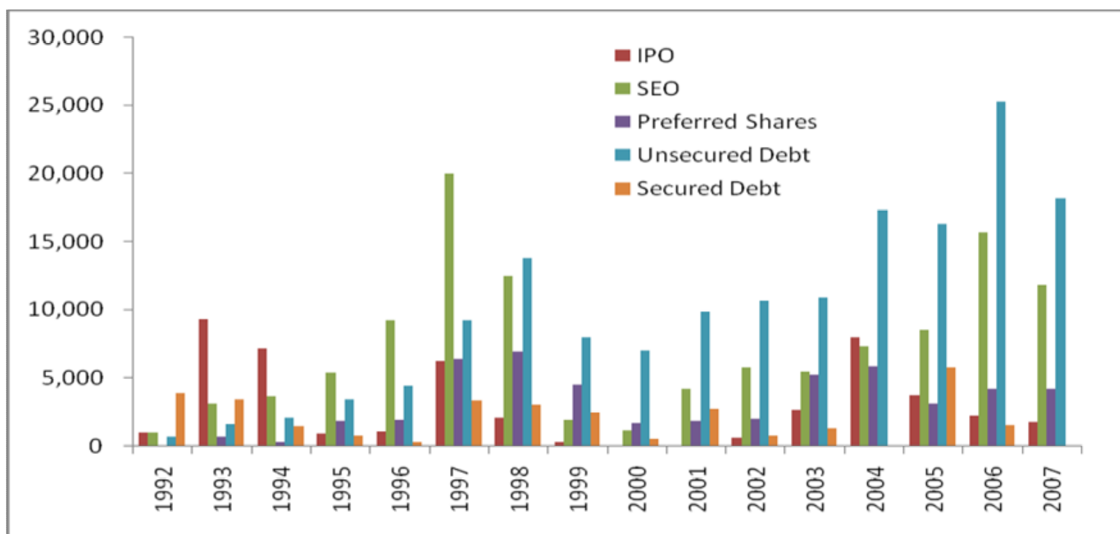
Figure 2.6: Public Equity Raised via IPO and SEO (1992-2007)



Source: NAREIT (2008), David Geltner et al. (2007)

Figure 2.7, gathered from NAREIT, shows the breakdown of public equity raised through 5 five instruments (IPO, SEO, preferred shares, unsecured debt and secured debt) during 1992-2007. I observe that debt-like instruments (preferred shares, unsecured and secured) are more widely used after year 1999. This fact also coincides with the REIT equity market crash during 1999-2000. REIT then turned into more debt-like capital raising or private capital financing (for some REITs only). I will further explore this topic in Section 3.1 (Fund Strategy Setting).

Figure 2.7: Breakdown of Public Equity Raised Through 5 Instruments (1992-2007)



Source: NAREIT (2008)

REIT Modernization Act of 1999 for Taxable REIT Subsidiary

There is also another catalyst to the ever-evolving REIT's private equity capital since 1998. Taxable REIT Subsidiary ("TRS") was created in 1999 REIT Modernization Act that went into effect on January 1st, 2001. TRS is a non-REIT company, wholly owned or partially by a REIT parent. According to IRS Code (§ 856(l)(1) and§ 856(l)(2)), TRS status is automatic, and no election is needed with respect to any corporation if more than 35 percent of the total voting power or value of the outstanding securities of such corporation is owned by a REIT.

Kimco Developers, Inc, ("KDI") provides a good example how Kimco Realty utilizes TRS Rules to set up this subsidiary in year 2001. Kimco Realty Corporation has several subsidiaries that are structured as wholly-owned TRS – including Kimco Developer Inc. KDI's primary operating business is to build retail properties for retailers or for local developers.

In November/December 2004 Real Estate Portfolio interview[9], Milton Cooper, co-founder of Kimco in 1960 and current CEO/Chairmen, stated "The REIT Modernization Act (1999) enabled Kimco to enter into new activities, including development for sale, owning more than 10% of the stock of non-REITs through taxable subsidiaries". In my view, this statement best explains how "REIT Modernization Act of 1999" has boosted the growth of REIT industry through TRS.

Sample TRS Structure – AMB Capital Partners

TRS's investment service function for REITs' private capital can be evidence by AMB's case. AMB Capital Partners L.L.C, a wholly-owned TRS of AMB Property L.P (the operating partnership of AMB Property Corp.), provides the investment management services to AMB's private capital clients.

AMB Property Corporation[10], a Maryland corporation (the "Company"), commenced operations as a fully integrated real estate company effective with the completion of its IPO on November 26, 1997. The Company elected to be taxed as a real estate investment trust (REIT) under Sections 856 through 860 of the Internal Revenue Code of 1986.

As of December 31, 2007, the Company owned a 96.1% general partnership interest in the Operating Partnership, excluding preferred units. The remaining 3.9% common limited partnership interests are

[9] By Bergsman, Steven, "Uncle Milton", Real Estate Portfolio, NAREIT, November/December 2004.
[10] Referenced from AMB 2007 10K report, page 4.

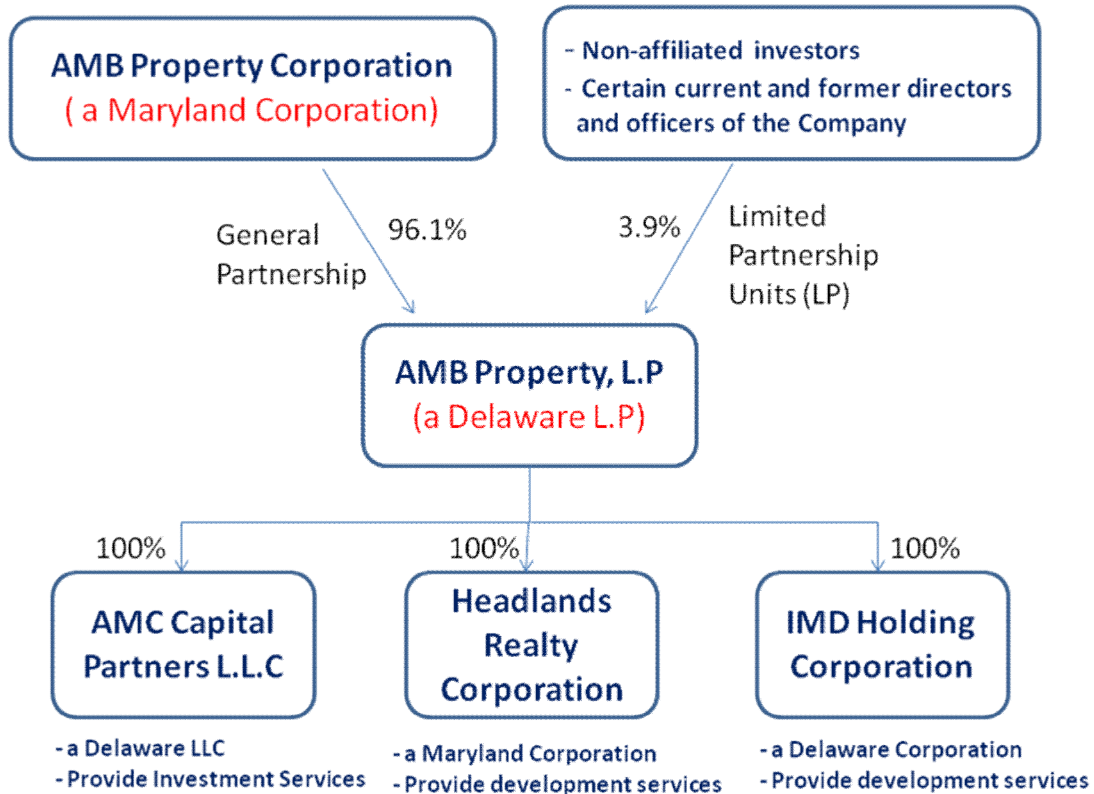
owned by non-affiliated investors and certain current and former directors and officers of the Company. As the sole general partner of the Operating Partnership, the Company has full, exclusive and complete responsibility and discretion in the day-to-day management and control of the Operating Partnership.

Three Wholly-owned subsidiaries

AMB Capital Partners, Headlands Realty Corporation and IMD Holding Corporation are three direct subsidiaries of the Operating Partnership.

1. AMB Capital Partners, LLC, a Delaware limited liability company ("AMB Capital Partners"), provides real estate investment services to clients on a fee basis.
2. Headlands Realty Corporation, a Maryland corporation, conducts a variety of businesses that include development projects available for sale or contribution to third parties and incremental income programs.
3. IMD Holding Corporation, a Delaware corporation, conducts a variety of businesses that also include development projects available for sale or contribution to third parties.

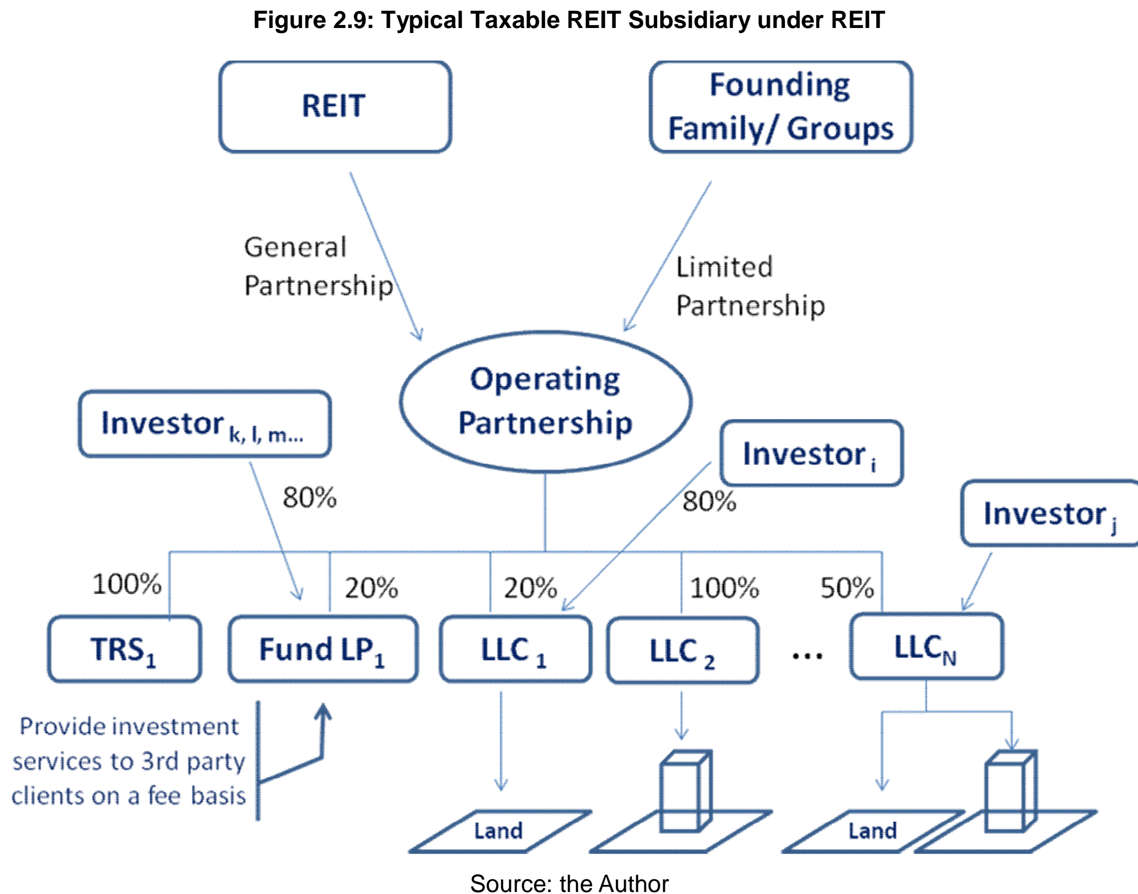
Figure 2.8: Organization Structure for AMB Property Corp.



Source: Page F6, AMB Property Corporation, 10-K, 2007

Figure 2.9 illustrates how a REIT sets up a TRS to provide services to their sponsored private capital funds.

Figure 2.9: Typical Taxable REIT Subsidiary under REIT



Source: the Author

It is commonly seen that operating partnership in a REIT does the following types of entity formation.

1) To form a <u>single membership L.L.C.</u>

   Tax consequences can be passed through the owner. REIT thus will only be taxed on income not distributed to shareholders.

2) To form <u>several JV L.L.Cs</u> to accommodate the various project level joint ventures with other investors.

   Tax consequences can be passed through the owners. REIT will thus only be taxed on income not distributed to shareholders. The non-REIT venture partners will be subject to their own tax status.

3) To form L.P. and act as general partnership to the private equity fund.

   Tax consequences can be passed through the general partner and limited partners. REIT will thus only be taxed on income not distributed to shareholders. The non-REIT limited partners will be subject to their own tax status.

By utilizing TRS, a REIT (through wholly-owned TRS) can provide investment service to 3rd party fund clients on a fee base. Fee income earned at TRS will be subject to regular corporate income tax.

Please refer more information about REIT legal background to the following Appendix.

Appendix 3 - REIT Structure (Traditional REIT, Up-REIT, Down-REIT)

Appendix 4 - Organizing and Qualifying as a REIT

Appendix 5 - Introduction of Taxable REIT Subsidiary ("TRS")

JV/Fund Fee to Add Public REITs' Bottom Line

Over the years, public REITs have grown their funds to the point where they are now meaningful in both size and their contribution to the bottom line of public REITs, as I have introduced in Figure 1.2 (Private Capital Income as % of Net Income of Public REITs).

Public REITs have used their private capital funds to take out REITs' existing portfolios and newly completed projects, to finance land purchases and development pipelines, and to diversify their rental income into a fee income business.

Private Equity Outpace Public Issuance in REIT Sector

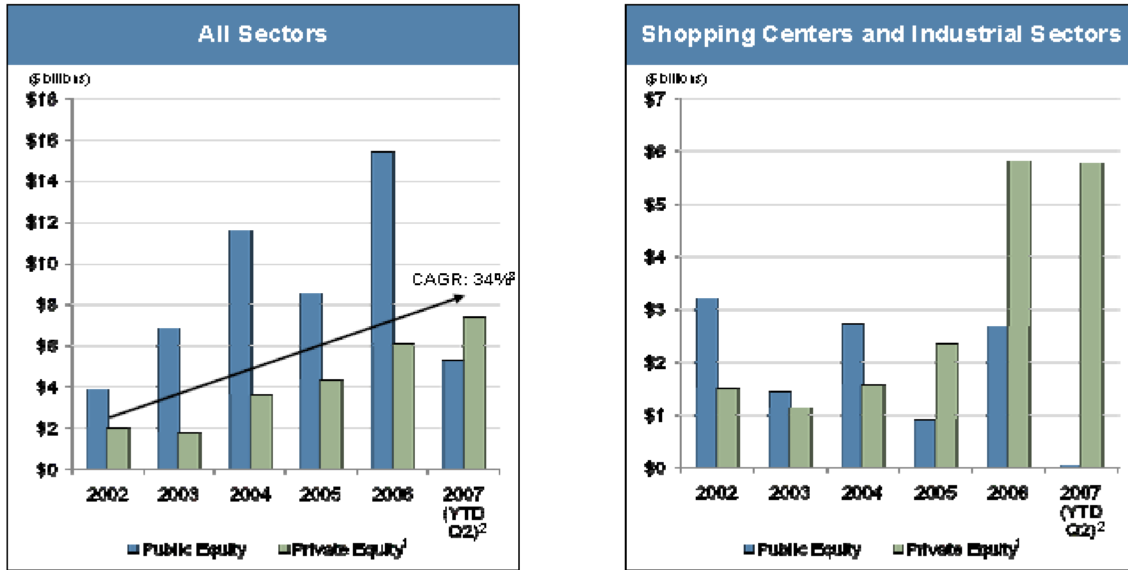
According to Christopher Vallace[11](2007), the amount of private equity raised by REITs has outpaced public issuance in 2007 first half. For shopping center and industrial REIT sectors, the private equity fund raised have exceeded the public equity market since 2005 (Please refer to Figure 2.10). In addition, during the same sample period (2002 – 2Q 2007), industrial and shopping center REIT sectors have jointly raised approximately 75% of total private equity raised by public REITs since 2002 (in Figure 2.11). Christopher Vallace (2007) further contributes this phenomenon due to the following reasons:

1) **Access to product**: Retail and industrial products have traditionally been the most difficult sectors for institutional investors of their direct access.
2) **Importance of scale and national operating infrastructure**: REITs have the scale and national operating infrastructure that mostly other type of investors doe not have.
3) **Critical mass for product-focused REITs**: These REITs provide institutional investors the opportunity to achieve their targeted allocations to the product type.

[11] Vallace, Christopher, "Public REITs as Managers of Private Equity", IFE Real Estate Investing, Fall 2007; Available at http://www.ifecorp.com/applications/DocumentLibraryManager/upload/M3907.pdf; Accessed on July 2, 2008.

Figure 2.10: Public Equity Raised vs. Private Equity Fund by REITs

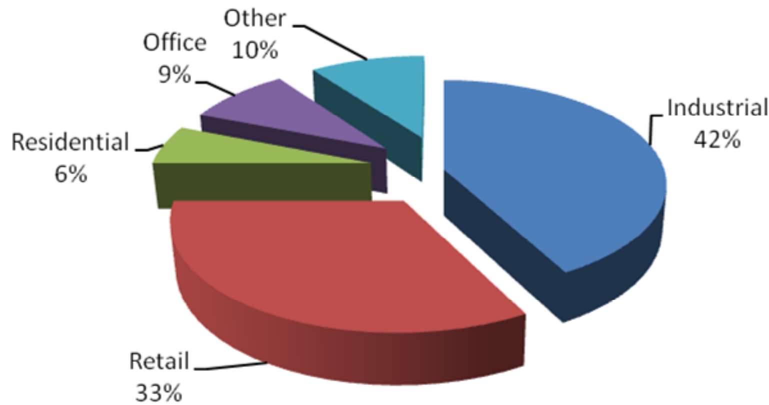
– All Sectors and Shopping and Industrial Sectors



1 Reflects private equity raised by public REITs (excludes mortgage REITs).
2 Includes two industrial transactions which closed subsequent to the end of 2Q 2007.
3 Compound annual growth rate of private equity raised from 2002 to YTD 2Q 2007. 2007 numbers not annualized.

Source: Christopher Vallace (2007)

Figure 2.11: Private Equity Raised by Public REITs, Breakdown by Sector



Source: Christopher Vallace (2007)

Key Events for Public REITs' Private Capital Business

Major event and remark for the evolution of REITs' private capital business is summarized in Figure 2.12. I observe that the REIT ownership in typical private capital fund has decreased from 50-50% single partner JV (in 1998) to 20-80% open-ended commingled fund (in 2004-2007).

I also find that Macquarie Bank has three joint venture funds (with Regency Centers, ProLogis, DDR) that were listed in Australia Stock Exchange (during 2001-2003). Some public REITs' acquisitions through JV funds with REIMs can also be found in Kimco's expansion footprint.

GIC Real Estate, one of the largest real estate investment managers globally, sponsored by Singapore Government, is also noticed to play an integral role in the evolution of US REIT's private capital. GIC Real Estate has made a series of fund investment with ProLogis, including Europe (1999), Japan Fund 1 (2002), Japan Fund II (2005), North America (2006) and South Korea fund (2007).

Figure 2.12: Key Event and Remark for Public REITs' Private Capital Business

Time	Key Event	Remark for the REIT Private Capital Business
1998	Kimco Realty first raised 45-55% JV fund with New York State Retirement Fund to acquire retail properties across the US.	Set up a JV structure template for nearly equal share single-partner JV with public pension fund
1998	AMB Property set up a 50-50% fund joint venture with Erie Insurance Co. to acquire industrial properties in the U.S.	-The first JV investment program for US REIT with insurance companies. -AMB resumes its investment management business line after a year break for 1997 IPO.
1998	DDR set up its first core take-out fund with DRA Advisors, a real estate investment manager	The first JV fund formation with a real estate investment manager.
1998	DDR set up Coventry Real Estate Partner, a real estate investment firm joint venture with Prudential Real Estate Investors	The first joint venture subsidiary formed with a real estate investment manager
1999	ProLogis raised a commingled fund with 7 institutional investors for ProLogis European Fund I.	-The first commingled fund for REIT private capital business -The first international fund, raised by US REITs -GIC Real Estate, a Singapore real estate investment manager, made its first attempt to invest with a US REIT
1999	REIT Modernization Law 1999 allows a REIT to own up to 100% of stock of a taxable REIT subsidiary that can provide services to REIT tenants and others. (TRS Rule takes effective from January 1st, 2001)	
2001	AMB set up a 50-50% JV with GIC Real Estate for US industrial market	GIC Real Estate, the first foreign real estate investment manager, to target US market investment with a US REIT.
2001	AMB Institutional Alliance Fund II raised	The first REIT commingled fund targeting US market
2001	Set up of Macquarie Countrywide Trust, an Australia listed (25-75%) fund JV between Regency Centers and Macquarie Bank	The first Macquarie's REIT fund invested in the US retail real estate
2002	ProLogis set up first Japan Fund with GIC Real Estate	-GIC Real Estate continues to participate ProLogis' international fund program -The 2nd international fund for US REIT peers, both by ProLogis
2002	Set up of ProLogis North American Properties Fund V., Australia listed fund (20-80%), between ProLogis and Macquarie Bank, named as Macquarie Property Trust (MPR).	- The 2nd Macquarie's three JV fund in the US. - The first failed listed vehicle for US REIT. ProLogis bought back from Macquarie in 2006

2003	Set up of Macquarie DDR Trust, an Australia listed (15-85%) fund JV between DDR and Macquarie Bank	The 3rd Macquarie's REIT fund invested in the US retail real estate
2004	AMB Institutional Alliance Fund III raised	The first open-end commingled fund among US REITs.
2004	Kimco acquired Price Legacy Corp by setting acquisition fund (15-85%) with DRA Advisors	First REIT acquisition ($1.5 Bn) through its managed private capital fund
2005	First Industrial enters first 10-90% JV with CalSTRS	Started a total 5 JV programs with CalSTRS in 05-08'
2006	Weingarten refocuses "private capital" as its new strategy	Started its 5 JV programs in a row.
2006	ProLogis European Properties Fund IPO in September	Marked the first commingled fund (managed by US public REITs) exit via IPO (ProLogis is now contemplating the same model for its Japan Fund)
2006	Kimco acquire Pan Pacific Retail Properties by acquisition JV fund (15-85%) with Prudential Real Estate Investors	The 2nd public REIT acquisition ($4.1 Bn) for Kimco via its managed private capital fund
2007	Regency Retail Partners raised its first open-ended commingled fund	The first open-end commingled fund for US retail REIT
Feb, 07'	Blackstone acquired Equity Office (#1 Office REIT) for $39.0 Bn consideration	The largest private equity buyout deal in US REIT sector
Apr.07'	Simon Property acquired Mills Corp (#5 retail REIT) by joint venture with Farallon Capital for $7.9 Bn	The largest retail REIT merger by partnership with a private equity fund
Oct.07'	Hilton Hotel (#2 hotel group) bought by Blackstone for $26.0 Bn	Blackstone's 2nd largest real estate transaction
Oct.07'	Archsteon-Smith (#3 residential REIT) was bought by Tishman Speyer (private developer) and Lehman Brother Global Real Estate Group for $22.2 Bn	The acquisition marked the largest residential REIT buyout jointly by private developer and private equity fund

Source: the Author

I conclude Figure 2.12's Key Event Summary by adding four M&A sector consolidation deals (office, retail, hotel and residential) initiated by either private equity fund alone or JV between private equity fund and real estate developer/operator. These four deal marks the private capital's largest "involvement" within the history of US REIT sector. I will elaborate on this topic in Section 5.3 (Evolving Role of Real Estate Investment Manager).

Some big private equity funds, such as Blackstone Real Estate Group, do not make investment with public REITs' private capital funds; instead, they take the public REITs private, when they perceive higher value in private real estate than public REIT shares.

Some leading REITs, such as Simon Property, can call on private equity funds (Farallon Capital in this case) to co-invest in the REIT acquisition. Tishman Speyer, one of the largest private real estate developers in the US, was able to draw Lehman Brother's private capital fund to make the REIT acquisition with Tishman. I

also observe that <u>those 4 REIT taken-private REITs do not have significant private capital strategy along with their REIT's core portfolios.</u> I will further explore this "co-incidence" in my conclusion in Section 6.1.

Industry Comment Evolution for Public REITs' Private Capital Business

Figure 2.13 sets forth the evolution how industry leader perceive the JV/Fund (private capital) business under the public REIT's framework. It is very interesting to observe the comment evolution from Moody's and Fitch Rating, two leading rating agencies on REIT sector in the past decade.

Moody's in 1999-2000 held a negative view toward REIT's joint venture vehicles, as Moody's thought "REITs were actually boost effective leverage by adding other off-balance-sheet financing without consolidating debts into parent REIT". Fitch Rating in 2004 claimed "these JV activities leads to rating volatility". Moody's in 2006 still held conflict of interest and fiduciary role concern for these JV funds. In 2007, Fitch Rating finally made a "net-positive" comment for these REIT mangers, as "institutional capital is sort of a vote of confidence that REITs have created additional fund management business".

Figure 2.13: Industry Comment Evolution for Public REIT Private Capital Business

Time	Source	Comment
April 1999	Rickie Fulman	JV Between REITs and Pension Funds are the new hot topic in the real estate industry
April 1999	Mike Kirby, Founder Green Street Advisors	He expects to see more of these types of joint ventures during the year, because REITs have no other sources of capital
April 1999	Benjamin Gifford, CIO, Morgan Stanley Real Estate	REITs normally prefer to raise money in the public markets, but because of their low valuations, they have been seeking other ways to access capital
Oct. 1999	Jay Siegal, SVP Moody Investors Service	Expects greater use of JVs between REITs and real estate developers and investors, and cautions that JVs can have significant and complex efforts on REITs that investors need to understand. Moody's <u>negatively views</u> REIT that use JVs as vehicles to bury debt and boost effective leverage, particularly where such practices cause REITs to incur debt outside of their target ranges.
Sep. 2000	Arleen Issacs-Lowe, VP Moody's Investors Service	To the extent that it is an institutional quality partner with capital wherewithal and consistent holding horizon and investment objectives as the REIT. JV allows the REIT to leverage their development and management expertise. Typically JVs are funded with mortgages which encumber assets and thereby have senior claims over and above the REIT's unsecured lenders. REITs may be putting more stabilized assets into a JV, <u>leaving the REIT itself with more riskier development activity</u> because that is how they are funding their development.

May 2002	Neil Weilheimer Senior Editor Commercial Property News	After years of JV to financing deals, public REITs are being advised to stop. Off-balance-sheet accounting may mask true leverage. It is now to come down disclosure. Bondholders could get the shaft if REITs dump their higher-quality assets into the venture. That leaves them holding weaker assets that must generate cash to pay down debt.
Feb. 2004	Tara Innes, M Fitch Ratings	US REIT JVs may be more burdensome than intended. These JVs possess inherent conflicts that may ultimately lead to rating volatility. Venture partners are often sophisticated real estate investors able to insure that only the highest quality assets are contributed to the venture, which may result in adverse selection for a REIT's core portfolio. As a result, all development risk is incurred within the core portfolio, which introduces earnings volatility, acts as a drag on a core portfolio's performance and places the brunt of the financing risk on unsecured lenders.
Oct. 2005	Hank Thoams Portfolio Manager CalSTRS	JVs appeal to institutional investors because the structure allows them to invest in a particular strategy with more control than they would have in a commingled account.
Oct. 2005	Charlie Wurtzebach MD of North American Henderson Global Investors	There has been an increase in JVs as institutional investors have gotten more sophisticated, filled out their core allocations and become more comfortable with the asset class.
Oct. 2005	Arleen Jacobius Pensions & Investments	Real estate investment firms are entering JVs with REITs, such as UBS North American Property Fund and Macquarie Real Estate.
Apr. 2006	Moody's Special Comment	These JVs and funds can be highly leveraged with secured debt which is off-balance sheet, weakening REITs' financial and strategic flexibility, and making an analysis of the REIT's true financial profile more difficult. However, there are varieties of leverage approaches, so each REIT's situation needs to be examined individually. With the availability of debt financing, and cap-rates at low levels REITs are still incented to access "cheap" JV/Fund equity vs. issuing their own common stock or other more expensive forms of capital. Conflict-of-interest concerns, and attendant fiduciary liability, may arise over how opportunities are allocated among REIT-owned properties and JV/Fund properties — for example, the way tenants are incentivized to a property in the REIT or in the JV
May 2006	Kemba J. Dunham Wall Street Journal	Industrial and retail REITs have typically been in the forefront in their use of JVs and funds. But now, health-care, multifamily and office REITs are using them too, particularly as capital sources see how they can successfully work.
May 2006	Mike Kirby, Founder Green Street Advisors	These structures also enable REITs to diversify their revenue stream as they earn various fees from the JVs by managing their properties - that is on top of the rent the REITs earn from the real estate in their own portfolios. These fees are typically a matter of basis points ad most of these deals have incentive clauses which determine how much is paid. These fees can be "fairly lucrative to really lucrative".
July 2006	Mary Lou Fiala President & COO Regency Centers	For our shareholders, we feel it's a better investment of our capital to be in development. Our joint venture partners would love to be part of that, but it is a choice we have not given them.

July 2006	Paul Congleton MD, N.A Fund Management ProLogis	As a REIT we are required to distribute most of our income to our shareholders, and as a result we don't generate and retain enough cash to fund the capital needs of the business going forward. For us to continue to build buildings, we need to have access to capital. The most efficient and profitable way for us to do that is through private fund management."
Sep. 2007	Steven Marks MD, Fitch Ratings	We view joint ventures net positively. They increase the risk of adverse selection, putting higher quality assets into a joint venture and leaving unsecured bondholders with less favorable assets on the balance sheet. Joint ventures also have the potential to distract management now that the REIT has a large institutional partner relationship to manage. On the positive side, joint ventures validate REIT managements and the REIT platform. Institutional capital is willing to invest and that's a vote of confidence that REITs have created sustainable businesses.
Sep. 2007	Dr. Brad Case VP, Research NAREIT	The reason for the shift is in the past two years, institutional investors realized that partnering with REITs on real estate transactions brings in higher returns than investing in commingled funds and separate accounts
Jan. 2008	Barden Gale Vice Chairman Starwood Capital Group	These joint ventures also give pension funds more control than traditional direct real estate investment. If they want to sell a property owned by the joint venture, they sell it, and pension funds have been able to negotiate fairly low management fees while still giving the REIT a slice of the profits

Source: NAREIT, Pensions & Investment, Moody's, WSJ and Fitch Ratings

Moody's Comment – "Funds Are an Untested Business for REITs"

Moody's in January 2006 in "Rating Methodology for REITs and Other Commercial Property Firms" report made a summary of "Benefits and Challenges of JVs and Funds" as in Figure 2.14.

Figure 2.14: Benefits and Challenges of JVs and Funds

Benefits of JVs and Funds	Challenges of JVs and Funds
• Alternative source of capital and cash • Short-term stable stream of cash flow from management and leasing fees • Permits participation in deals the REIT could not do on its own • Can dilute concentration of large assets • Boost REIT's control over a property sector or geographical region by allowing it to manage more properties with less capital commitment • Diversifies property firm's business, potentially providing more diversification of income streams, asset types and location • Partner may offer expertise the property firm does not have	• Diverts management time from core business; high "hassle factor" • JV and funds investments are illiquid, and de facto control is limited, too • Winding up JVs and funds can be complex and create substantial funding needs to buyout partners • Conflicts of interest may arise in form of allocation of tenants, assets or resources • Is a more leveraged, risky strategy than direct ownership, often done to "make the numbers work" due to the modest returns on the asset • Transparency challenges surrounding fee structure (true deal economics), performance, debt obligations, liquidity/sale limitations • Usually have high levels of secured debt

Source: Moody's (January 2006)

I will address the benefits and challenges discussed by Moody's (January 2006) for this field in Chapter 3.

Moody's made a statement that "Funds Are an Untested Business for REITs" in April 2006 in a report called "REIT Joint Venture and Funds: Weighing the Pluses and Minuses". Moody's attributes the reasons are as below.

1. Strategic and financial burden to REIT:

   JV and funds constraints REIT's strategic flexibility.

2. Liquidity:

   Equity stakes in JV and Funds, in general have limited liquidity.

3. Increase in Earnings Volatility:

   Fund management fee and incentive distributions from the JV/Funds show high earnings volatility.

4. The Matter of Nonrecourse JV/Fund Mortgage:

   Moody's concern was on REITs borrow non-recourse mortgages debt against the strong properties in the JV/Funds, leaving parent REIT with substandard properties on the book.

5. Exit Strategy:

   Moody's refer some cases, the REIT is de facto, if not dejure, obligated to take the assets onto its own balance sheet. This will creates funding, liquidity and asset risk to the parent REIT.

6. Conflict of Interest:

   Moody's attributes this due to the possible conflicting objective of the REIT's two roles – parent REIT and REIT manager.

7. Adverse Asset Selection:

   Moody's worries if better properties are held through JV/Fund structure, its bondholders end up with weaker assets.

8. Use of Management Time:

   Moody's comment is JV/Fund occupies much time effort of management team and become a distraction from REIT's core business.

9. Weakened Transparency:

   Moody's comment was the current financial report of JV/funds as required by GAAP falls short of providing investors a good full picture.

Moody's comment from rating agency perspective in this field, in my view, seems a strong statement and correct. I will demonstrate another strong qualitative consolidation decision tree by Moody's in Section 3.4 (To Consolidation or Not).

Industry Interview Comment for Public REITs' Private Capital Business

An interview with a senior management of a leading REIM in US, his comment for "Why we have never seen your firm JV with public REITs' Private Capital Business?" was "I don't like public REITs to always take out their portfolios at appraisal value. If I am diligent enough, I could always find some deals with off-market price and good return potential. We also want the control. In their private capital funds, we seem to be a pure money partner only. We sometime feel we're competing with public REITs' private capital business, cause we're chasing the same clientele – public pension funds in the US".

The other interview with a US CEO with one of the largest European pension fund, his comment for "Why we have never seen your firm JV with public REITs' Private Capital Business? was "Public REIT share investment is a quick and better way to add real estate exposure for us in the US. JV funds provide little liquidity to our desire".

Moody's comment on "REIT Fund are an untested business" and other two comment from one REIM, and one pension fund should explain part of reasons why some institutional investors are still keeping a good distance with pubic REITs' private capital programs. Investing through REIM is still pension funds' preferred choice for real estate fund allocation. I will elaborate this topic in Section 5.1 (Structure Diagram for Public-sponsored Private Capital Fund).

Chapter 3 Characterization of Private Capital Funds under Public REITs

3.1 Fund Strategy Setting
3.2 "Core-Fund" – Is It Really Core? "Value-added Fund" – Is It Really Value-added?
3.3 Analysis of Private Capital Income – the Case of AMB
3.4 To Consolidate or Not

I follow the fact-finding work in Chapter 2 (Evolution of Public REIT-sponsored Private Capital Fund) and further explore the what, how and why for these public-sponsored private capital funds. Key task in Chapter 3 is to characterize the public REIT-sponsored private capital business in sequence of four sections listed.

In addition, I create Chapter 4 with respect to "Merchant Development for Public REITs", one very important characterization of this field, to further explain this growing segment in some public REITs and show how this segment affects the private capital business managed by public REITs.

By studying all available public information for the REIT's private capital funds, I have first provided "Private Capital Summary for 7 Studied Public REITs" in the Appendix 7.

In Section 3.1, I discuss the fund strategy setting in the following sequence.

1. Fund Type
2. Fund Investors
3. Single Partner JV vs. Commingled Fund
4. Deal Exclusivity vs. REITs' Role
5. Distribution Frequency and Promotes

In Section 3.2, I examine the statement for public REITs private capital funds: "Core-Fund" – is it really core? "Value-added Fund" – is it really value-added? I investigate NCREIF's fund style strategy definition and examine if public REITs' value-added funds are just to add the leverage against the properties in the funds.

In Section 3.3, I first analyze AMB's private capital income by breakdown of its asset management (stable fee

income) and incentive fee (volatile). From Dr. Bradford Case[12], I have learned the fact "Public REITs' 3rd party investment funds typically charge lower fees than other core real estate fund or separate accounts managed by REIMs". I then provide reasoning with respect to "Why public REITs charge inexpensive for their REITs' private capital funds?"

In Section 3.4, I further examine the consolidation criterion for public REITs' private capital funds. I also show some monitoring indicators that can be used by institutional investors to check if there is a funding gap for them to provide capital to fund REITs' development growth. Topics to be covered are as following.

1. The Start of Kimco Income REIT's Off-balance-Sheet Financing
2. Consolidation Decision Tree for Public REITs
3. Moody's Methodology on Consolidation
4. Bond Covenant Requirement for Public REITs

[12] Bradford Case, Ph.D., Vice President, Research & Industry Information, NAREIT, "How to Invest in Real Estate", Presentation at MIT Center for Rea Estate, April 15, 2008.

3.1 Fund Strategy Setting

In this Section, I base on "Private Capital Summary for 7 Studied Public REITs"(Appendix 7) to provide my analysis on "Fund Strategy Setting".

First, I discuss the fund style strategy observed and its matching JV programs' objective (Core Fund – Take-out vehicle; Value-added Fund – Specified Acquisition program; Opportunistic Fund – Strategic Land and Development in a new market) that are commonly seen as the "combination" in the REITs' private capital arena.

Secondly, I demonstrate how investment objectives of pension funds (CalSTRS as one example) or REIMs (GIC Real Estate) can be aligned with public REITs' private capital business.

Thirdly, I explain the difference between "Single Partner JV" vs. "Commingled Fund". With respect to single partner JV, ProLogis California Fund (1998) and Kimco Income REIT (1999) are used as two examples. With reference to commingled funds, I further investigate three funds. 1) Kimco Income Fund I (2003), 2) AMB Institutional Alliance Fund III (2004), and 3) Regency Retail Partners (2006)

Forth, I discuss the deal exclusivity vs. REITs' role by referring to the evolution of "target market" changes in Regency Centers' fund family. I demonstrate how the ambiguity of deal exclusivity may arise from the self-created discretion (AMB DFS Fund I as example) and geographical overlapping (ProLogis California Fund (1999) vs. ProLogis North American Fund V (2002)).

Fifth, I examine the incentive distribution frequency and how incentive design i.e. "promote" are calculated. I first study AMB's private capital business in order to comprehend its creativity to structure distribution frequency mechanism differently. Three types of promote structure are examined. 1). Series of IRR-based Hurdles; 2). Distribution Waterfall; 3). Revised Distribution Waterfall. I found that the first type is more commonly used in the industrial REIT sector.

1). Fund Type

Figure 3.1 summarizes the private capital business strategy for the studied 7 REITs. Each REIT deploys its private capital program as part of its business strategy. I have provided "Major Fund Strategy" for each REIT in the 3rd column in Figure 3.1. "Take-out vehicle" seems to be the most commonly adopted strategy for the 7 studied REITs.

In terms of number of funds and fund gross asset ("FGA"), ProLogis is by far the leading private capital manager in the public REIT arena. $18.8 Bn FGA of ProLogis fund family at 2007 year-end is larger than its equity market capitalization of $13.6 Bn (priced on July 3, 2008). The fact (FGA > REIT's market capitalization) also applies to other 6 studied leading REIT managers.

Figure 3.1: Private Capital Business Strategy Summary for 7 Studied REITs

Company	REIT Sector	Major Fund Strategy	Fund Style			1st Fund	# of Funds	Fund Gross Asset ($ Mn)	Typical Ownership	Typical Leverage	Key Partners
			Core	VA	Opp						
ProLogis	Industrial	Take-out vehicle and Int'l Expansion	X	X		1999	13	18,775	20%	50-60%	GIC RE Eaton Vance
AMB Property	Industrial	Take-out vehicle and Int'l Expansion		X	X	1998	10	6,306	20%	55-75%	GIC RE
First Industrial	Industrial	Leverage operating platform - due to limited balance sheet	X	X	X	2003	7	2,585	10-15%	65-80%	CalSTRS
Weingarten Realty	Retail	Geographical Carve-out	X	X		1999	7	1,827	20-25%	below 50%	AEW TIAA-CREF
Kimco Realty	Retail	Acquisition of 3rd party REITs	X	X		1998	8	9,699	15-20%	55-75%	Prudential GE RE DRA Advisors UBS NY State
Regency Center	Retail	Take-out and acquisition vehicle	X	X		2000	10	4,664	16-25%	45-65%	Macquarie CalSTRS
Developers Diversified	Retail	Take-out and acquisition vehicle	X	X		1998	9	11,222	10-20%	50-70%	Macquarie Prudential TIAA-CREF

Source: the Author

In fund management business, assets under management (AuM) is the most commonly used term to describe the total value of assets that a fund manager manages and administrators for its customers. However, AuM for REITs' fund management (private capital) is not often used, in my view, due to the following three reasons.

First, AuM is seldom reported or quoted in REITs' public financial statement and only FGA is released in the

supplement financial report to each quarter's 10Q Report.

Second, most funds may quote committed capital when they announced their first closings of funds. However, no further information would be periodically updated in the REITs' public available information with respect to the committed period and amount, and how much money has been deployed into fund management (private capital).

Third, different REITs use different methods to recognize its ownership in the funds. Taking 20% fund ownership as an example, AMB appropriates equity capital worth of 20% ownership into the fund. On the other side of spectrum for 20% fund ownership, ProLogis contributes 80% of wholly-owned assets to its managed fund and defers 20% gain as a reduction of ProLogis' basis in fund. Thus, AuM is not commonly used by ProLogis' fund management (private capital) business.

Key partners, in principle, comes from two categories – Pension Funds (such as CalSTRS and New York State Common Retirement Fund) and REIMs (GIC Real Estate, AEW and GE Real Estate). I will take investors' perspective and explore this topic in Section 5.1 (for pension funds) and Section 5.3 (for REIMs).

In principle, there are three types of funds that I have earlier categorized in Figure 1.3 (Classification of Private Capital Fund under Public REITs). I further explain these three funds below.

A. Core Take-out Fund

Firstly, some funds, hereafter defined as "Core Take-out Fund" serve as specific take-out vehicles for the existing stabilized portfolio or pre-specified newly completed projects, upon stabilization. Most of these funds are categorized as "core strategy" as its fund style with typical leverage in between 40-60%. In Section 3.2, I will further discuss why for the same fund style strategy, some REITs (such as AMB) classify this type of fund as "Value-Added".

B. Valued-Added Fund

"Value-added Specified Acquisition Fund" is the second fund type, as I have observed. By teaming up (mostly) REIMs, the fund objective is to acquire 3rd party REIT or identified 3rd party properties in a specific geographical coverage.

Kimco's PL Retail LLC Fund is one typical value-added fund example. Kimco Realty Corp.[13] and DRA

[13] Kimco Realty 2004 Annual Report, page 39.

Advisors L.L.C, in December 2004, acquired Price Legacy Corp, a west coast-based REIT for $696 Mn. Kimco and DRA formed a joint venture, PL Retail L.L.C., to complete the transaction with cash. Kimco owns a 15% non-controlling interest in PL Retail. The total transaction, including financing was around $1.2 Bn. Price Legacy[14] was a publicly traded REIT that consisted of 33 shopping centers(7.6 million s.f) and one parcel of undeveloped land. .

C. Opportunity Fund

"Opportunistic Development Fund" is the third fund type I have observed. FirstCal 3 LLC (2007) is a 10-90% land development JV between First Industrial and CalSTRS with geographical focus in the US. GE Real Estate also forms a development joint venture with AMB, named AMB DFS Fund I, LLC (2006), to build and sell properties in the US. Opportunity fund is by far outnumbered by core fund and value-added funds in this field. The reasons, I believe, is due to

a) **Explicit Reason**: Public REITs have seen to form various project-level development joint ventures with local developers. I have discussed in Section 1.2 why I do not aim at discussing this type of project-level JV in the research As pension funds or REIMs nearly have development skills, that is the reason why I have not observed many public REITs to structure development JV funds with either pension funds or REIMs

b).**Implicit Reason**: Wall Street's growth preference is to see more REITs' development gains left in parent REITs (through exit by take-out vehicle managed by the parent REITs), rather than be restored at JV/Fund level. I will investigate this topic in Section 5.1 (Merchant Development for Public REITs and its Private Capital).

2). Fund Investors

Key fund investors noticed in this field include two types – pension funds and REIMs. I will use CalSTRS as one example for pension funds, and GIC Real Estate as one example for REIMs to understand their respective investment objectives in this field.

CalSTRS (California State Teachers' Retirement System), the national 2nd largest public pension fund with asset over $170.33 Bn[15], as of May 31, 2008. CalSTRS reports real estate market value of $20.15 Bn, equivalent to 11.8% of its overall allocation. Both its real estate allocation and its percentage are on the top

[14] Price Legacy Corp. was formed through the 2001 merger of Price Enterprises Inc. and Excel Legacy Corp. Previous to that, Price Enterprises was a REIT spun off from Costco Companies Inc. Excel Legacy was spun off from Excel Realty Trust.

[15] Available at http://www.calstrs.com/Investments/Invport.asp Accessed on July 5, 2008.

5 listed among US public pension funds[16]. During 2005-2007, CalSTRS has consecutively set up 5 investment programs with First Industrial, worth of $657.0 Mn with fund style strategy mostly in opportunistic development projects (in Figure 3.2). This type of closer business tie between public pension fund and REIT manager is "uncommon"[17]. I will elaborate this topic in Section 5.1 (Structure Diagram for Public-sponsored Private Capital Fund).

Figure 3.2: CalSTRS' Series of JV Program with First Industrial

Co-investment Venture	Since	Total Equity in JV Fund ($ Mn)	10% FR Equity Investment (US$ Mn)	Fund Style Strategy	Geographic Focus	Leverage Ratio	Fund Gross Asset ($ Mn)
2008 European Land/Development*	2007	165	16.5	Opp	Europe	65.0%	475
2008 Canadian Land/ Development *	2007	100	10.0	Opp	Canadian	65.0%	285
2006 Land/ Development JV (FirstCal3)	2006	87	8.7	Opp	US	68.6%	278
2005 Core (FirstCal2)	2005	61	6.1	Core	US	78.7%	286
2005 Development/ Repositioning (FirstCal1)	2005	243	24.3	Opp	US	66.7%	732
		657	65.7			68.0%	2,057

* Summary term sheets from First Industrial's corporate announcement on January 8, 2008.
Source: First Industrial 4Q 2007 Supplement Financials, page 40.

The Government of Singapore Investment Corporation Pte Ltd (GIC), established in 1981, is one of the global leading sovereign wealth funds with asset over $100 Bn, managing the foreign reserves of Singapore. GIC Real Estate is GIC's real estate investment arm. It is ranked as one of the top 10 real estate investment firms in the world[18]. GIC Real Estate has 7 offices in Singapore, London, New York, San Francisco, Seoul, Shanghai and Tokyo, with close to 150 staff from all over the world.

In Figure 3.3, I found that GIC Real Estate has started making investment in industrial private capital funds since 1999 with ProLogis European Properties Fund, where GIC acts as one of the investors for this closed-end commingled fund. During 2001-2005, GIC has signed up 3 exclusive single-partner JV[19]. funds with ProLogis and AMB in three countries – Japan, Mexico, and US. In 2006-2007, GIC also acts as lead investor for two billion-sized commingled funds with ProLogis fund family (ProLogis European Properties Fund II and ProLogis North American Industrial Fund).

16 Please refer to Figure 5.5 "Top 50 Public Pension Funds Based on Real Estate Holdings" in Section 5.1
17 Because I argue that CalSTRS could have the financial capabilities to take private First Industrial, a $1.2 Bn market capitalized REIT.
18 Available at http://www.gic.com.sg/ourbiz_realestate.htm Accessed on July 5, 2008.
19 I did not find enough information to confirm if GIC Real Estate is the sole investor in ProLogis Korea Properties Fund (2007).

Figure 3.3: GIC Real Estate's JV Programs with 7 Studied Public REITs as of 07YE

Fund Name	Since	Fund Life	Fund Size ($ Mn)	Fund Style Strategy	Target	Targeted Leverage	Investors	REIT's owner-ship	Fund Gross Asset ($ Mn)
ProLogis Korea Properties Fund	2007	15 yrs	250	VA	Exclusive for newly developed properties in Korea and will also cover 3rd party acquisitions	50%	GIC RE	20.0%	50
ProLogis European Properties Fund II	2007	open-end infinite-life	4,000	VA	Europe	50-60%	28 investors; GIC RE takes the lead	16.9%	1,464
ProLogis North American Industrial Fund	2006	open-end; indefinite life	1,500	Core	Exclusive take-out vehicle for newly developed properties in US and Canada	55-60%	GIC RE- the largest investor	23.2%	2,105
ProLogis Japan Properties Fund II	2005	10 yrs	600	Core	Extension of Japan Fund I	55-60%	GIC RE	20.0%	2,391
AMB-SGP Mexico, L.L.C	2004	2011 (7 yrs); 7 years extendable	250	VA	To acquire industrial properties in Mexico	66.1%	GIC RE	20%	262
ProLogis Japan Properties Fund I	2002	10 yrs	600	Core	To acquire newly developed properties in Japan	55-60%	GIC RE	20.0%	1,236
AMB-SGP , L.P.	2001	2011 (10 yrs); 10 years extendable	150	VA	To acquire industrial properties in US	75.0%	GIC RE	50%	455
ProLogis European Properties	1999	Before IPO-10 yrs; IPO in April 2006	2,653	Core	Europe. Current - Externally managed by ProLogis	50-60%	GIC RE, ABP, TIAA, PGGM	24.9%	4,901
			10,003						12,864

* Fund Size information for ProLogis European Properties (AMS:PEPR) uses market cap of PEPR, Euro 1.69 Bn on July 3, 2008.
Exchange Rate 1 Euro = 1.57 USD
Source: 1999-2007 Annual Reports of AMB and ProLogis; the Author.

A curious question naturally occurs to me – how GIC Real Estate manages two REIT partnership relationships, particularly when these two REITs in every inch being direct competitors across the goble. Or my next question – will not AMB feel concerned for its AMB-SGP fund with the same US geographical focus as ProLogis North American Industrial Fund (where GIC Real Estate is also the largest investor)?[20]

[20] I did not have chance to take interview with the mentioned three parties (ProLogis, GIC Real Estate and AMB) on this specific topic during my thesis research period. I believe it will be very interesting to learn about how each party will respond to these two questions.

3). Single Partner JV vs. Commingled Fund

In terms of number of investment partners, there are basically two types of JV structures observed in the public REITs' private capital business – "Single Partner JV" and "Commingled Fund". What is the rationale for public REIT to structure either single partner JV or commingled fund?

The research question, in nature, is a function for the appetite for the investor partners and a REIT's risk-return expectation for the particular JV fund. Some institutional investors have larger investment capacity/appetite and also seek to be more involved in project-level selection process, thus choosing to be the single partners in such JV funds. These single partner JV funds normally have a strong built-in monitoring and control mechanism for investment partners.

A. Single Partner JV

Single Partner JV means there is only one investment partner with a public REIT for a specific fund. It is usually tailor-made to suit the need for the investment partner. Single partner JV between CalSTRS and First Industrial, as earlier discussed in Section 3.1.2 (Fund Investors), is one good example.

Investment partner, who normally owns the "controlling interest" and act as "limited partner" to the single partner JV fund. Yes, it looks quite controversial – how can investment partner be structured as "limited partner that owns controlling interest". On the other hand, pubic REIT acts as "general partnership with non-controlling interest".

"Controlling interest" used in REITs' public financial statement refers to "the absolute ownership percentage". In that sense, an investment partner owns majority interest and takes the limited partnership position in the fund; where as a public REIT has less interest than investment partner and serves as general partnership position to the fund. I will further investigate this topic in Section 3.4 (To Consolidate or Not).

In the early days of this field (before year 2000), the ownership split was often at 50-50% for this type of fund. The REIT will mostly manage the JV, and receive fee income (development, property management and leasing fees) from the JV Fund. I use ProLogis California Fund (1998) later to demonstrate the investment objective between investment partners and public REITs. Kimco Income REIT (1998), discussed in Chapter 2 (Why Started in 1998? The Case of Kimco Income REIT), is another example.

ProLogis California (1999) is a 50-50% JV with New York State Common Retirement Fund with a 10-yr term. It is a typical early-day (1998-2000) equal share JV with public pension fund in this field. The fund serves as

an exclusive take-out vehicle for ProLogis' exiting stabilized projects in Los Angeles/Orange County market. ProLogis earns property management, leasing and development fees from the JV Fund, but there is no promote structure in this fund.

B. Commingled Fund

The second type is commingled real estate fund for multi-investor vehicles. According to Investopedia[21], a Forbes Media Company, commingled fund is defined as "a fund consisting of assets from several accounts that are blended together. Investors in commingled fund investments benefit from economies of scale, which allow for lower trading costs per dollar of investment, diversification and professional money management".

Figure 3.4 provides comparison of commingled funds managed by the studied 7 REITs. Commingled fund itself in this field, in my view, has demonstrated the renovation from smaller single partner 50-50% JV fund size in 1998-2000 to a larger fund size with a reduced REIT's ownership at 15-25% in 2004-2007.

Figure 3.4: Comparison of Commingled Funds among 7 Studied Public REITs As of 07YE

Fund Name	Parent REIT	Since	Fund Type	Fund Style Strategy	Fund Size ($ Mn)	REIT's Owner - ship	Key Investors	Target	Total Assets ($ Mn)	Target Leverage
ProLogis European Fund II	ProLogis	2007	open-end	VA	4,000	16.9	ProLogis European Properties Fund (30%)	Take-out Fund in Europe	1,464	50-60%
ProLogis North American Industrial Fund	ProLogis	2006	open-end	Core	1,500	23.20 %	GIC RE takes the lead	Exclusive take-out for US and Canada	2,105	55-60%
AMB Europe Fund I	AMB	2007	open-end	VA	553	21%	20 investors	Exclusive take-out for Europe	1,099	60%
Regency Retail Partners	Regency	2007	open-end	Core	565	20%	Ohio State Teachers and several others	Exclusive take-out vehicle for large format newly developed retail.	209	50.3%
AMB Institutional Alliance Fund III	AMB	2004	open-end	VA	1,006	18%	Grouping 12 investors in a private REIT, acting as LP to the Fund	Take-out vehicle in US	1,975	53.1%
Kimco Income Fund I	Kimco	2003	closed-end	VA	103	15%	Insurance Companies	Mostly transfer the newly acquired portfolio of Mid-Atlantic Realty Trust in 2003.	277	63%

Source: the Author

[21] Available at http://www.investopedia.com/terms/c/commingledfund.asp, accessed on July 7, 2008.

The first commingled fund observed is Kimco Income Fund I, established in 2003. The fund raised money from several insurance companies. It is a closed-end fund with finite fund life. The fund objective is to transfer the newly acquired Mid-Atlantic Realty Trust (in 2003) by the parent REIT with 40% leverage to a private capital fund that can be levered to 60%.

The rest 5 commingled funds (all open-ended), in my view, is the leading public REITs' private capital products that go out and compete well with other real estate funds managed by REIMs. Three of them have US domestic market focus. In my observation, these three funds[22] are no difference from typical core/value-added funds raised by leading US REIMs (such as BlackRock, ING Clarion Partners and Prudential Real Estate Investors) in year 2006-2007. They have the same clientele (mostly public pension funds), similar fund terms and leverage capacity.

I will diverge a little bit to show the revolution of commingled funds in this filed. I will also examine the product feature of AMB Institutional Alliance Fund II and explain why/how Alliance Fund III is an enhancement on Alliance Fund II. Regency Retail Partners, the first commingled fund in retail REIT sector will also be investigated.

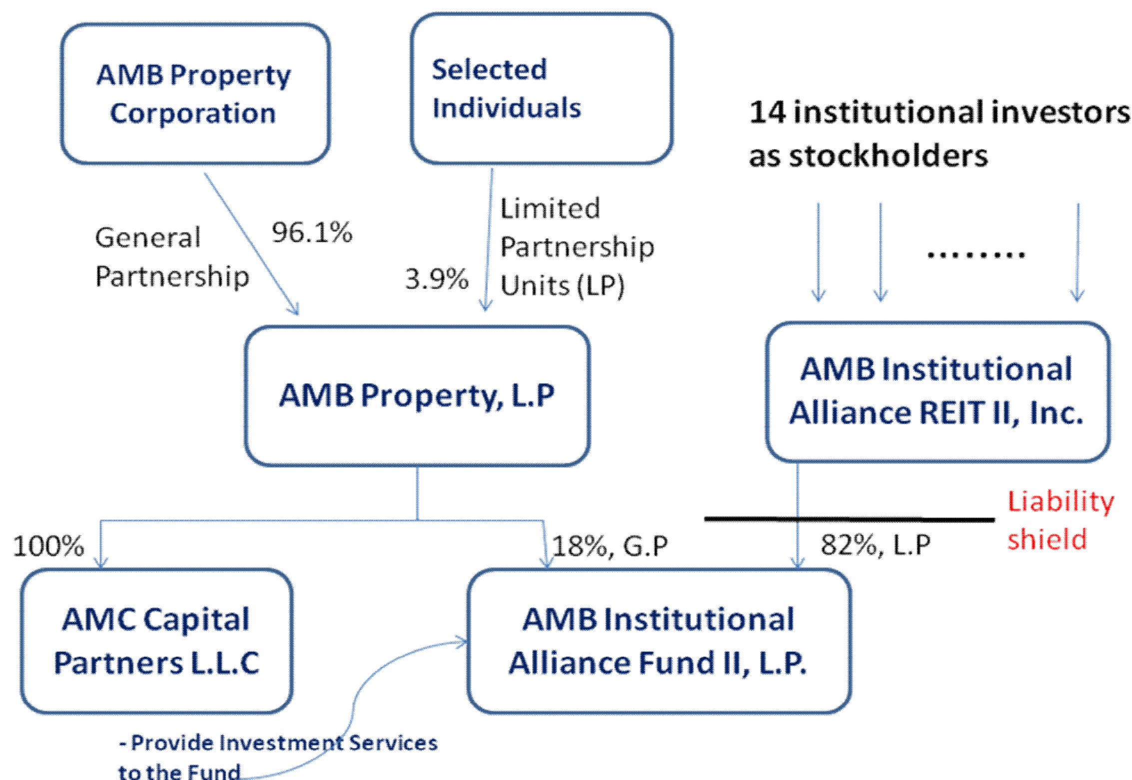
a). AMB Institutional Alliance Fund III and its Enhancement from Fund II

AMB further innovates the commingle fund into an open-end structure in 2004. AMB Institutional Alliance Fund III, L.P. (2004)[23] is believed "to be the first US open-end commingled fund managed by public REITs. A key benefit is the flexibility the fund offers different investment horizons, appealing equally to those, for example, with an eight-year horizon or with a 20-year outlook. New and existing investors can purchase or redeem fund shares quarterly at net asset value without being held to arbitrary fund formation or termination dates."

AMB Alliance Fund III is actually an "enhancement" from AMB Institutional Alliance Fund II (2001). AMB Alliance Fund II is a close-end fund and structured through a private real estate investment structure (private REIT). In my view, AMB Alliance Fund II can be described as quasi-commingled fund. Figure 3.5 shows its fund structure.

[22] ProLogis North American Industrial Fund, Regency Retail Partners, and AMB Institutional Alliance Fund III.
[23] Cited from "AMB Capital Partners LLC", Sponsor Interview Series of The Institutional Real Estate Letter, 2006.

Figure 3.5: Fund Structure of AMB Institutional Alliance Fund II



Source: Page F16, AMB Property Corporation, 10-K, 2007

AMB Institution Alliance Fund II is a co-investment partnership between AMB Property L.P and AMB Institutional Alliance REIT II, Inc., a limited partner of the Alliance Fund II, which includes 14 institutional investors as stockholders as of December 31, 2007. According to John Roberts[24], he attributed this private REIT structure is designed to solve UBTI[25] ("Unrelated Business Taxable Income") issues for their endowment and foundation investors.

AMB Capital Partners L.L.C, a wholly-owned subsidiary elected to be a TRS under REIT Code, provides the investment services to AMB Institutional Alliance Fund II, L.P. AMB Property L.P, the operating partnership of AMB Property Corporation, serves as general partnership to the Fund. Liability shield is noticed for the limited partnership of AMB Institutional Alliance REIT II, Inc.

[24] Source: John Roberts, President of AMB Capital Partners L.L.C. A sponsor interview The Institutional Real Estate Letter (2001).

[25] Definition: Unrelated Business Taxable Income. Income earned by a tax-exempt entity that does not result from tax-exempt activities. The entity may owe taxes on this income. UBTI does not include most types of passive income, such as dividends, interest, and most property rentals. UBTI does not include "the unrelated debt-financed income, as defined in IRS Section 514. Instead of investing in a partnership that holds debt-financed real property, a tax-exempt organization, such as Pension Trust, can invest in a private REIT which incurs acquisition indebtedness. Because a REIT, unlike a partnership, is a separate taxable entity, the debt-financed income rules of Section 514 generally do not apply and both dividends and capital gain from the REIT are not generally UBTI, provided the shares in the REIT is not debt-financed and subject to the pension held REIT rules described in Appendix 4 "Organizing and Qualifying as a REIT". (Source: Thomson West, 2007, page 6-38.3 on "Tax Benefit – UBTI Avoidance".)

b). Regency Retail Partners

Regency Retail Partners, raised in December 2006, is the first open-ended, infinite-life investment that is managed by US retail REITs. According to Regency Centers[26], the fund is looking for $565Mn equity (Regency retains 20% interest in the developed projects sold to the Fund) and aiming $1,400 Mn gross assets by setting 60% leverage limit. The fund has exclusive access to Regency's future development pipeline that meets the following criteria:

a. US community centers greater than 250,000 sf including tenant-owned GLA

b. Two or more anchors comprising at least 50% of the GLA

c. 95% leased with average anchor lease terms of at least 10 years

Regency Retail Partners Fund will buy these completed developments from Regency Center at fair market value. Acquisition assets from third parties meeting the criteria will be subject to a rotation policy with Regency's other co-investment partners.

Regency's accounting policy[27] only recognizes the gains from sales to co-investment partnership (80%) the portion of the sales not attributable to parent REIT's ownership interest. This accounting policy is quite similar to ProLogis' fund model. I will further discuss this topic in Section 4.1 "Merchant Development for Public REITs and its Private Capital".

Two key words shall be flagged in the fund description for Regency Retail Partners – "exclusive access" and "rotation policy". I will continue this discussion in next section.

4). Deal Exclusivity vs. REIT's Role

I want to show the importance of "deal exclusivity" in this field by first referring to the evolution of "target market" changes in Regency Centers' fund family. I then demonstrate how ambiguity of deal exclusivity may arise from the self-created discretion (AMB DFS Fund I, as example) and geographical overlapping (in ProLogis' fund family).

Evolution of "Target Market" for Regency Centers' Funds

Regency Centers has been setting up a series of JV investment program with several leading institutional investors since 2000, as summarized in Figure 3.6. I use the same Figure to investigate how Regency Centers creates various "target market" for its fund family.

[26] Regency Centers 2008 annual meeting presentation slides, page 21.
[27] Regency Centers 2008 annual report, page 46.

Figure 3.6: Regency Centers Fund Summary

Fund Name/ JV Partner	Since	Fund Type	Fund Style Strategy	Target	Total Planned Asset ($ Mn)	RC's Owner-ship	# of Funds
Regency Retail Partners	2007	Open-ended	Core	The Fund has the right to acquire all future Regency-developed large format community centers, upon stabilization.	1,411.4	20%	1
Macquarie CountryWide-DESCO	2007	Australia listed trust	VA	To acquire Desco's 32 properties of retail portfolios (mostly anchored by Schnuck grocery stores) in St. Louis, Illinois, Indiana and Tennessee. Desco is the development arm of Schnuck Markets Inc.	430.0	16.40%	1
CalSTRS	2005	Single investor JV	Core	Take-out vehicle for Regency's newly stabilized development projects in the US	226.7	25%	1
Macquarie CountryWide Trust	2004, 2003, 2002, 2001	Australia listed trust	Core	Mostly take-out vehicle for Regency's newly developed grocery-anchored shopping center at "non-core" markets	3,566.0	25%	4
Oregon Public Employees Retirement Fund	2000	Single partner JV	Core	- Initially two parties contribute existing neighborhood centers into JV - Continue to acquire 3rd party shopping centers at Regency's Core Markets	905.4	20-30%	3
Source: 4Q 2007 Financial Supplement, page 18; 2007 Annual report, page 44-46.; the Author					6,540	16-30%	10

The 1st fund, Oregon State Fund (2000), aims at acquiring 3rd party shopping center at Regency's defined "core markets". The 2nd fund, Macquarie Countrywide Trust (2000-2004), is set up to take-out Regency's newly developed grocery-anchored (single tenant anchor) at the "non-core" markets. The Macquarie fund agreement does provide Regency with an "exit strategy" to divest its non-core assets, either outside of Regency's geographical focus or possibly in markets with weaker-than-average demographic profile. The first two funds, in my view, already created "discretion room" about how Regency defines the "core-market" along with time evolution.

Its 3rd fund with CalSTRS also generates greater discretion area, as the fund objective is a broadly defined term – serve as "Take-out vehicle for Regency's newly stabilized development projects in US". The latest fund, Regency Retail Partners, defines the exclusive access right to acquire all future Regency-developed large format community centers, upon stabilization, as long as the properties meet the three criterion in page 47.

In my observation, target market of CalSTRS JV Fund (2005) may have some geographical overlapping with Regency Retail Partners' large format community centers. That might be the reason why Regency uses the term of "rotational policy" in Regency Retail Partners' fund description.

However, what worry me most is the fiduciary role conflict between being general partner of Regency Retail Partners and being the parent REIT listed in New York Stock Exchange? It seems to me that Regency Center (the parent REIT) cares more about how to make money for the limited partners of Regency Retail

Partners over the parent REIT. Because Regency Retail Partners have first right of refusal to take out nearly every large format retail product that Regency is to be involved in the future.

I further show that deal exclusivity ambiguity may arise from the **self-created discretion** in fund description.

AMB DFS Fund I, L.L.C is single partner JV between GE Real Estate and AMB. The fund target is to build and then sell projects in the US, other than those AMB identifies as its target. AMB Institutional Alliance Fund II and Fund III have defined they will serve as take-out vehicle for newly stabilized properties at AMB defined "target" market in the U.S. In our view, this type of public information disclosure creates obscurity by itself. Shareholder investor of AMB Property Corp. (the parent REIT) will have difficulty reading across these lines.

The third example is due to **the geographical overlapping** between a public REIT's family funds. ProLogis California Fund (1999) vs.. ProLogis North American Fund V (2002) is one of the examples.

In ProLogis 2002 annual report[28], ProLogis stated that ProLogis California Fund has the right of first refusal with respect to ProLogis' stabilized developed projects (excluding properties developed under built to suit lease agreements), in the Los Angeles/Orange County market, subject to the property meeting certain specified criterion, including leasing criterion, and the property fund having the capital to acquire the property. Stabilized development properties offered to ProLogis California that are not accepted then be offered to ProLogis North American Properties Fund V.

ProLogis North American Properties Fund V. (2002), was a 20-80% Australia listed fund between ProLogis and Macquarie Bank, named as Macquarie Property Trust (MPR). Established in March 2002, the Fund was set up to have Right of First Offer to acquire all the ProLogis' newly stabilized properties in US and Canada through December 2003, but excluding properties in Los Angeles/Orange County market. This term is generally believed to be associated with ProLogis California Fund's right of first refusal in Los Angeles/ Orange County market

ProLogis ended MPR's Right of First Offer for contribution of North American assets in 2005. In 2006, the fund became apparent that the fund could no longer raise capital among retail Australia investors due to perceived low yields on US industrial assets and cutting for the exclusive take-out for ProLogis' US and Canada assets. Green Street Advisors in an article[29] for "Avoiding the Macquarie ProLogis Trust Pitfalls" quotes, "With the gloomy asset growth prospects and a strengthening Australia dollar, MPR stock began to

[28] ProLogis 2002 annual report, page 25 and page 99.
[29] Page 40, Green Street Advisors, "European Industrial Sector Coverage Initiation", January 27, 2008.

languish and traded at a discount to NAV".

Then, ProLogis created North American Industrial Fund in 2006, serves as the exclusive investment vehicle for newly developed properties in US and Canada. This seems to signal the beginning of end for MPR. ProLogis eventually bought the asset back in July 16, 2007 at close to NAV price, and spun them into a new series of other ProLogis funds.

The two episodes in ProLogis family funds – "**ProLogis California vs. MPR**", and "**MPR vs. North American Industrial Fund**" – shall, in my view, serve as good learning lesson to understand the importance of "deal exclusivity" and potential pitfalls for institutional investors investing with these funds.

5). Distribution Frequency and Promotes

In my observation, core and value-added funds normally have distribution frequency and promote payout at the funds' dissolution. Some opportunity funds have incentive distribution at "upon project sales". Purpose of "Promote" (i.e. incentive design fee) is to align the interests of passive institutional investors with the active managing REIT partner. The promote fees could be cash or non-cash, depending on the specific terms of each private capital funds.

I first look into AMB's private capital business and comprehend its creativity to structure distribution frequency mechanism differently. Three types of promote structure will also be discussed – 1). Series of IRR-based hurdles; 2). Distribution Waterfall; 3). Revised Distribution Waterfall.

In AMB's fund family (in Figure 3.7), the creative features may also include its distribution frequency. The first fund, AMB/Erie, L.P. (1998), AMB uses 3 years incentive distribution frequency in its perpetual term fund with Eric Life Insurance Co. The promote structure is also believed to fit the life insurance business nature – more on yield (rather than capital gains) and long term asset liabilities matching. The promote structure is structured as 15% above a 6% real IRR (adjusted for CPI).

Figure 3.7: Promote Structure and Incentive Distribution Frequency Summary for AMB Fund Family

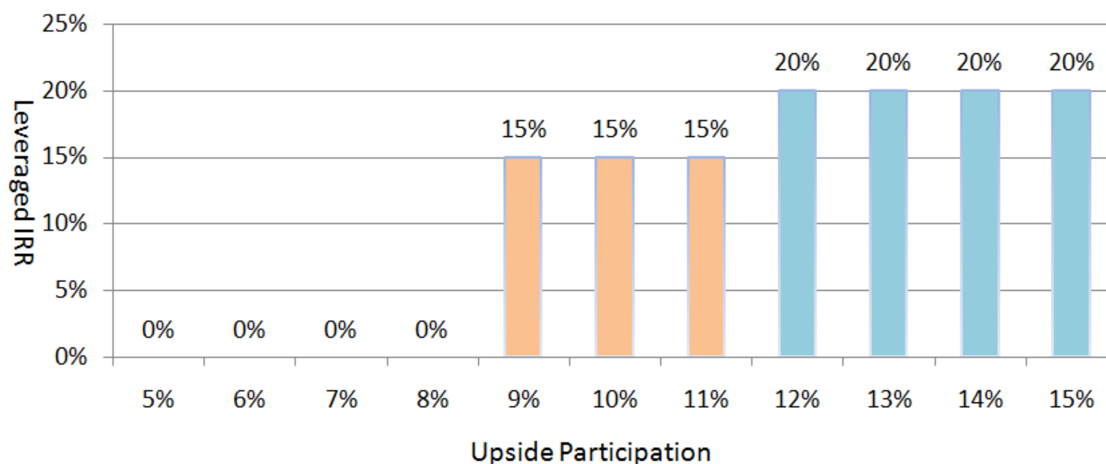
Co-investment Venture	Since	Fund Style Strategy	Principal Investors	Target Mkt	Term	AMB's equity owner-ship	Promote	Incentive Distribution Frequency
AMB Europe Fund I, FCP-FIS	June 2007	VA	Various	Europe	Open end	21%	20% above a 9% IRR 25% above a 12% IRR	3 years
AMB DFS Fund I, LLC	Oct. 2006	OPP	GE Real Estate	US [3]	Perpetual	15%	N/A	Upon project sales
AMB Japan Fund I, L.P.	June 2005	VA	13 institutional investors	Japan	June 2013 (8 yrs); extendable 2 years	20%	20% above a 10% IRR 25% above a 12% IRR	At dissolution

AMB-SGP Mexico, L.L.C	Dec. 2004	VA	GIC Real Estate	Mexico	Dec. 2011 (7 yrs); extendable 7 years	20%	15% above a 9% IRR 20% above a 12% IRR	7 years
AMB Institutional Alliance Fund III, L.P.	Oct. 2004	VA	Various	US	Open end	18%	15% above a 9% IRR 20% above a 12% IRR	3 years
AMB-AMS , L.P.	June 2004	VA	MT, SPW and TNO (1)	US	Dec. 2012 (8.5 yrs) ; extendable 4 years	39%	N/A	At dissolution
AMB Institutional Alliance Fund II, L.P.	June 2001	VA	AMB Institutional Alliance REIT II, Inc.(2)	US	Dec. 2014 (estimated)	20%	15% above a 9% IRR 20% above a 12% IRR	At dissolution
AMB-SGP , L.P.	March 2001	VA	GIC Real Estate	US	March 2011 (10 yrs); extendable 10 years	50%	15% above a 9% IRR 20% above a 12% IRR	10 years
AMB Partners II, L.P.	Feb. 2001	VA	San Francisco Employees' Retirement	US	Perpetual	20%	15% above a 9% IRR 20% above a 12% IRR	3 years
AMB/Erie, L.P.	March 1998	VA	Erie Insurance Company	US	Perpetual	50%	15% above a 6% real IRR (adjusted for CPI)	3 years
						20.9%		

Source: 1Q 2008 AMB Financial;1998-2007 Annual Reports; the Author

The incentive distribution AMB Institutional Alliance Fund III (2004), the open-end fund, is stated as "Incentive distributions of 15% of the return over a 9% internal rate of return and 20% of the return over a 12% internal rate of return to investors on a 3 year basis or at the end of a fund's life. The series of IRR-based hurdles is one of the three types of distribution design as commonly seen in REIT private capital funds. It is the most commonly observed promote structure in this field. Figure 3.8 illustrates how the step function works for AMB Alliance Fund III.

Figure 3.8: Promote Step Function of AMB Alliance Fund III



Source: Page F-38, S15-S22, S32-S40, AMB Property Corporation, 10-K, 2007

I believe the 3-year incentive distribution frequency for an open-end indefinite life fund is associated with the business nature of being a listed REIT. Wall Street prefers the stable asset management fee income for REIT's private capital business. The Street also expects to see the incentive promote return to kick in a predicable time intervals – not only at the fund's dissolution. Three years should be an acceptable "recurring" time frame for The Street, also for the institutional investors as well.

The 2nd promote structure is called "**Distribution Waterfall**", less frequently seen in REIT private capital fund arena. It is more commonly used in a project-level joint venture and non-real estate private equity funds[30] (such as high-tech venture capital). Distribution waterfall could follow the below sequence

Figure 3.9: Distribution Waterfall Sequence

a). Return of capital first to limited partners ("LP")

b). Preferred return of a percentage, typically 10% to LPs

c). 80/20 (GP/LP) or full speed catch-up until GP receives a 20% of total profits

d). 80/20 (GP/LP) profits thereafter

Where catch-up is defined as: Catch-up is when a investor's ("LP") return reaches the defined hurdle rate, giving them an agreed level of preferred return, the fund manager ("GP") enters a catch-up period, in which the fund manager may receive an agreed percentage of the profits until the profit split determined by the carried interest agreement is reached.

A basic numerical example for one-year fund life is provided in below.

Figure 3.10: Example for Basic Distribution Waterfall

Assumption	Investor (LP)	Manager (GP)	Total
Equity Contribution	$100.0	$0.0	$100.0
Exit Value (1-yr)	$115.0		
Preferred Hurdle	10%	-	-
Catch-up Speed (GP:LP, %)	80%	20%	100%
80-20 thereafter	80%	20%	100%
Distribution Waterfall			
Return of Capital	$100.0	$0.0	$100.0
Preferred Return to LP	$10.0	-	$10.0
Catch-up to GP	-	**$2.5***	$2.5
80-20 hereafter	$2.0	$0.5	$2.5
Total Return	**$112.0**	**$3.0**	**$115.0**
Equity Multiple	1.12	N/A	1.15

* $2.5 = $10 * 20%/80%

Source: the Author's calculation based on INREV, Core Definition, page 29, December 2006.
INREV is European Association for **I**nvestors in **N**on-listed **R**eal **E**state **V**ehicles.

[30] Please refer to more detail in the chapter 8 of Distribution Waterfall in "J-Curve Exposure" (2007).

Assumed one-year project level exit value is at $115. Following a sequence of waterfall, the investor (GP) could obtain total $112 return back, equivalent to 1.12 equity multiple. Fund manager, the LP, could get a total of $3.0 return, made up of $2.5 catch-up and $0.5 ($2.5 remaining return's 20%). $3 return to the fund manager is equivalent to 20% profit out of total gain $15 (=$115-$110).

The third promote structure we have observed is within many of Developers Diversified Realty's joint venture programs. We call it as "**Revised Distribution Waterfall**", a revision based on the 2nd promote structure that we have just discussed.

In DDR Markaz II LLC (2004) joint venture with Kuwait Financial Center. The fund objective is to take out DDR's 13 stabilized properties. The equity contribution is 80-20% between Kuwait Financial Center and DDR. The cash flow distribution is proportionally to equity contribution of 80-20%. For the promote structure, it is stated[31] as

> a). Pro Rata in proportion to DDR and Markaz equity interest until both have been allocated an amount equal to a 11.5% annual rate of return and
>
> b). <u>50% to DDR</u>, and 50% DDR and Markaz in proportion to their equity interest.

On top of the equity participation to NOI and promote, DDR also makes the following fees in this JV.

Figure 3.11: Fees to DDR in DDR Markaz II

Property Management Fee	4.0% of revenues
Development Fee	5.0% of total costs for all improvements
Asset Management Fee	6.25% of net operating income
Leasing Fees (without co-broker)	6.0% on new leases on years 1-5; 3.0% on remainder of term(spaces < 5,000 sf)
	5.0% on new leases on years 1-5; 2.5% on remainder of term(spaces 5,000 - 10,000 sf)
	4.0% on new leases on years 1-5; 2.0% on remainder of term(spaces 10,000 - 20,000 sf)
	$2.00 per square foot (spaces > 20,000 sf)
	4.0% on new leases on years 1-5; 2.0% on years 6-10 (ground leases)
	Renewals earn 50% of fees on new leases
Commission on Outparcel Sales	6.0% of gross sales price up to $500,000
	5.0% of gross sales price $500,000 - $1,000,000
	4.0% of gross sales price over $1,000,000

Source: Joint venture summary of DDR, 4Q 2006 Financial Supplement of DDR, page 56

In some other DDR's JVs (such as Coventry II DDR Bloomfield LLC[32]), DDR might also charge the tenant coordination fees at 5% of all hard and soft costs.

[31] Joint venture summary of DDR, 4Q 2006 Financial Supplement of DDR, page 56.
[32] Joint venture summary of DDR, 4Q 2006 Financial Supplement of DDR, page 57.

3.2 "Core-Fund" – Is It Really Core? "Value-added Fund" – Is It Really Value-added?

In this section, I want to exam the following statement for public REITs' private capital fund.

"Core-Fund" – is it really core? "Value-added Fund" – is it really value-added?

I take NCREIF fund style strategy definition and examine if a REIT value-added fund is just to add the leverage against the properties in the fund. My answer to this question is very likely. "Value-added funds" in this field could be achieved just by adding leverage from their "core-fund natured" stabilized properties.

My initial idea is pure take-out vehicle shall be deemed as "core-fund" for institutional fund partners, as the take-out properties and property prices can be pre-specified and pre-programmed before the formation of the fund. I demonstrate how this ambiguity is existent in this field by looking into two fund examples in Figure 3.12.

Figure 3.12 : Fund Comparison between Regency Retail Partners and AMB Alliance Fund III As of 07YE

Fund Name	Since	Fund Type	Fund Style Strategy	Target	Total Equity Commitment ($ Mn)	REIT's Ownership	Total Assets ($ Mn)	Total Debt ($ Mn)	Effective Leverage
Regency Retail Partners	2007	Open-end, indefinite life, various investors	Core (60% leverage)	Exclusive take-out vehicle for large format newly developed retail.	565	20%	209.0	105.2	50.3%
AMB Institutional Alliance Fund III	2004	Open-end, structured as private REIT	VA (60% leverage)	Take-out vehicle in US	1,006	18%	1,975	1,048	53.1%

Source: the Author

These two funds are both well-known among real estate institutional investors. Both funds have innovative open-ended structure, indefinitely life design and 60% target leverage, and serve as take-out vehicle for its parent REIT in the US. The only difference is Regency Retail Partners Fund is marketed as "core-fund"; whereas AMB Institutional Alliance Fund III is categorized as "value-added fund".

In NCREIF's real estate investment style white paper[33], the specific (numerical) leverage ratio is not clearly given for three investment styles, both at asset level definition and at portfolio level. NCREIF only states "low leveraged" for the Core investment style, "moderate leverage" for Value-Added style and "high leverage" for the Opportunistic style.

[33] "Real Estate Investment Styles: Trends From the Catwalk", NCREIF Styles White Paper Committee, Oct 2, 2003.

Figure 3.13: Real Estate Investment Style and Purity - by NCREIF

	Core	Value Added	Opportunistic
Asset Level Definition	Assets that achieve relatively high percentage of return from income and that are expected to exhibit low volatility.	Assets that exhibit one of more of the following attributes achieve a significant portion of return from appreciation, exhibit moderate volatility and/or are not currently considered core property types. However, if the overall risk level is excessive, the asset should be classified as Opportunistic.	An asset that is expected to derive most of the return from appreciation or which may exhibit significant volatility in returns. This may be due to a variety of characteristics such a exposure to development, significant leasing risk, or high leverage, but may also result from a combination of moderate risk factors that in total create a more volatile return profile.
Attributes	Core Attributes	Value Added Attributes	Opportunistic Attributes
Property Type	Major property types only office, industrial, retail (neighborhood/ community centers, regional/super regional malls), multifamily	Major property types, plus other retail, hospitality, senior living, storage	Non-traditional property types, including speculative development for sale or rent and land
Lifecycle	Operating	Operating, Leasing-up	Development and redevelopment lifecycles
Occupancy	High occupancy	Moderate to well leased, substantially pre-leased development	Low economic occupancy
Lease Concentration	Low rollover concentration	Moderate rollover concentration	High rollover concentration
Lease Rollover Terms	Low total near term rollover	Moderate total near term rollover	High total near term rollover
Leverage	Low leverage	Moderate leverage	High leverage
Market/ Location	Institutional market/location	Institutional or emerging markets	Secondary and Tertiary markets and International Real Estate
Investment Control	Investment structures with significant control	Investment structures with significant or moderate control, but security or preferred position	Investment Structures with minimal control, unsecured positions

Source: Real Estate Investment Styles: Trends From the Catwalk, NCREIF Styles White Paper Committee, Oct 2, 2003.

Despite no numerical leverage example given, NCREIF at portfolio level definition does specifies the portfolio nature for three fund styles and their return and risk distribution (income return vs. appreciation return).

Figure 3.14: Portfolio Level Definition

Core	Value Added	Opportunistic
A Portfolio that includes a preponderance of core attributes. As a whole, the portfolio will have low lease exposure and low leverage. A low percentage of non-core assets is acceptable. As a result, such portfolios should achieve relatively high income returns and exhibit relatively low volatility.	A Portfolio that generally includes a mix of core investments and others that will have less reliable income streams. The portfolio as a whole is likely to have moderate lease exposure and moderate leverage. As a result, such portfolios should achieve a significant portion of the return from appreciation and are expected to exhibit moderate volatility.	A Portfolio of preponderantly non-core investments that is expected to derive most of its return from appreciation and/or which may exhibit significant volatility in returns. This may be due to a variety of characteristics such as exposure to development, significant leasing risk, high leverage, or a combination of moderate risk factors.

Source: Real Estate Investment Styles: Trends From the Catwalk, NCREIF Styles White Paper Committee, Oct 2, 2003.

Joanne Douvas (2003) published an article, titled "Opportunity Funds: Reining in the Fees" when she was with JP Morgan, as illustrated below.

Figure 3.15: Net Returns under Various Investment Strategies

	Core	Levered Core	Value-Added	Opportunity
LTV	0%	15%-50%	60-67%	67%
Unlevered Gross	9.50%	9.5%-10%	10.5%-11%	12%-13%-14%
Levered Gross Return (%)	NA	10.26%-14.26%	17.7%-21%	22.8%-24.9%-27.1%
Cost to Invest (bps)	70 bps	85-140 bps	200-350 bps	480-495-510 bps
Net Return	8.80%	9.41%-12.86%	15%-17.5%	18%-20%-22%

Source: "Opportunity Funds: Reining in the Fees", by Joanne Douvas, Head of Real Estate Fiduciary Services, JP Morgan, March 18, 2003

Joanne Douvas has specified the numerical example with respect to for four-type of investment strategy (core, levered core, value-added and opportunity fund) and 5 attributes (LTV, unlevered gross return, levered gross return, cost to invest, and net return) of the funds available in the 2003 market place.

One of her conclusion is that an investment manager shall be only paid the fees according to the risk/return spectrum. "The GP should be judged and rewarded based on its de-levered performance, a standard that is neutral to the amount of leveraged utilized".

I show leveraged returns under various debt ratios by using the formula in David Geltner et al.[34](2007).

Figure 3.16: Calculation Formula for Levered Equity Return

R (Equity) = R (Debt) + Leverage Ratio (Property Return - Debt Cost)

where leverage ratio is defined as total asset over total debt

In this formula, the equity returns equals the debt return plus the leverage ratio times the difference between the property return and the debt return. For an unleveraged property return at 9%, applying 250% leverage ratio (i.e. 40% debt ratio) at 5.0% cost of debt, the equity return could be levered to 11.7%. I also show the levered returns by applying various debt ratios in Figure 3.17.

Figure 3.17: Leverage Returns by Applying Various Debt Ratios

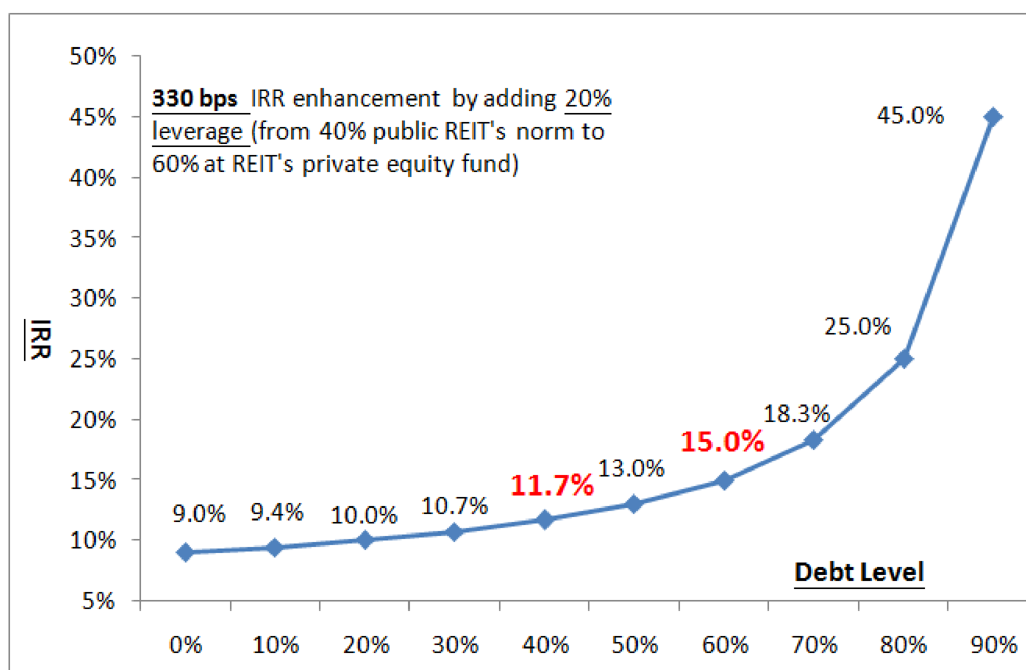
Unlevered Return for Property	9%
Cost of Debt	5.0%
Target Debt Ratio	40%
Leverage Ratio	250%
Equity Return	11.7%

Debt Ratio	0%	10%	20%	30%	**40%**	50%	**60%**	70%	80%	90%
Levered Return	9.0%	9.4%	10.0%	10.7%	**11.7%**	13.0%	**15.0%**	18.3%	25.0%	45.0%

Source: the Author

[34] "Levered equity return calculation" at Chapter 13, Page 310, David Geltner et al (2007).

Figure 3.18: Enhanced IRR Returns by Adding Debt Ratios



Source: the Author

Figure 3.18 illustrates a 330 bps return is enhanced by adding 20% leverage (from 40% public REITs' norm to 60% at REIT's private equity fund).

In my view, by making additional leverage (from the parent REIT's 40% leverage to 60% at private capital fund) in a REIT's take-out fund of newly completed and stabilized properties, a REIT's private capital fund can generate higher return, given the same risk/return profile of the "core stabilized asset portfolio".

3.3 Analysis of Private Capital Income – The Case of AMB Capital Partners

In this section, my plan it to analyze the income from private capital funds, managed by public REITs. I base on AMB's case to conduct the analysis. From Dr. Bradford Case[35], I have learned the fact "Public REITs' 3rd party investment funds typically charge lower fees than other core real estate fund or separate accounts managed by REIMs". I then provide reasoning with respect to "Why public REITs charge inexpensive for their REITs' private capital funds?"

Given the limited information for private capital income breakdown (fund management fee and incentive fee breakdown) for most public REITs, I use AMB private capital data available to analyze this topic. On the fee spectrum, I investigate how much a typical REIT private capital fund charges.

From Figure 3.19, I found that the private capital income typically consists of acquisition and development fees, asset management fees and priority distributions, and promoted interests and incentive distributions. I also observed that even with AMB's fund family, each fund may have its own service fee breakdown and the calculating formula for different fees. Taking asset management fee for example, three funds all have its calculation formula to derive the asset management fee.

Figure 3.19: Fee Structure for AMB's Value-Added Private Capital Funds

Service Fee Breakdown	Alliance Fund III (2004)	Japan Fund I (2005)	Europe Fund I (2007)
Acquisition Fees	90 basis points acquisition fee on the acquisition cost of third party acquisitions	90 basis points acquisition fee on the acquisition cost of third party acquisitions	90 basis points acquisition fee on the acquisition cost of third party acquisitions
Asset Management Fee	Priority distributions of 7.5% of net operating income on stabilized properties	Priority distributions of 1.5% of 80% of the committed equity during the investment period and then 1.5% of unreturned equity	75 basis points on the gross asset value of the fund
Development Fee	70 basis points of total projected costs as asset management fees on renovation or development properties	Nil	Nil
Incentive Distributions ("Promote")	Incentive distributions of 15% of the return over a 9% internal rate of return and 20% of the return over a 12% internal rate of return to investors on a periodic basis or at the end of a fund's life.	Incentive distributions of 20% of the return over a 10% internal rate of return and 25% of the return over a 13% internal rate of return to investors at the end of a fund's life	Incentive distributions of 20% of the return over a 9% internal rate of return and 25% of the return over a 12% internal rate of return to investors on a periodic basis (3 years)

Source: Page F-38, S15-S22, S32-S40, AMB Property Corporation, 10-K, 2007.

[35] Same as footnote 12 in page 36.

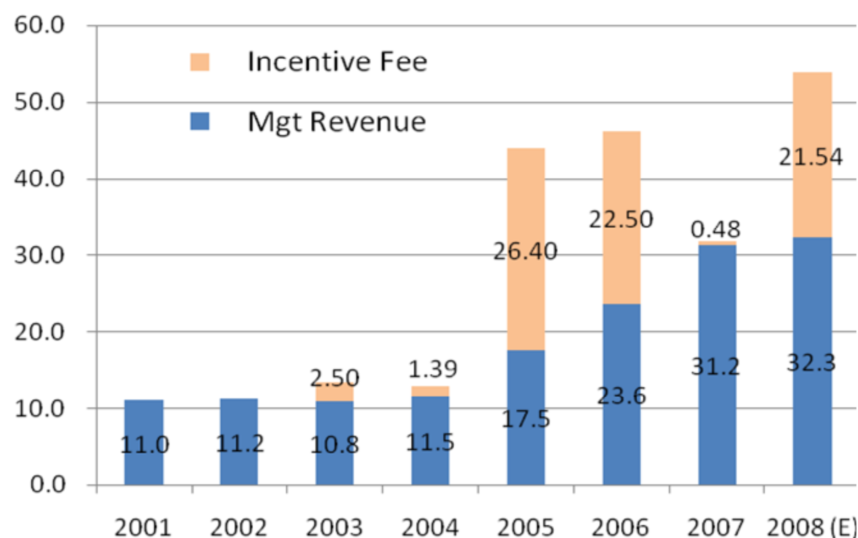
I further look into the breakdown for AMB private capital income during 2001-2007. Figure 3.20 and 3.21 summarizes the private capital income breakdown in the past seven years and additional one year forecast, made by AMB's in its 1Q 2008 Analyst Meeting Material.

Figure 3.20: Private Capital Income Breakdown and its Percentage of AMB's Annual FFO Unit: $ Mn

Item	2001	2002	2003	2004	2005	2006	2007	2008 (E)
Mgt Revenue	10.97	11.19	10.84	11.51	17.54	23.60	31.22	32.31
Incentive Fee	0.00	0.00	2.50	1.39	26.40	22.50	0.48	21.54
Private Capital Income	10.97	11.19	13.34	12.90	43.94	46.10	31.71	53.85
AMB's annual FFO	212.9	217.6	186.7	207.3	254.4	297.9	365.5	386.7
Private Capital Income as % of FFO	5.2%	5.1%	7.1%	6.2%	**17.3%**	**15.5%**	**8.7%**	**13.9%**

Source: 2001-2007 annual reports and 1Q 2008 Supplemental Analyst Package.

Figure 3.21: Incentive Fee and Management Fee Income for AMB (2001-2008F)



Three points, in my view, is worth to note in analyzing AMB's private capital income

(1) Private capital income is <u>volatile,</u> because incentive fee is based on promoted interests and incentive distributions, resulted from the various annual performance results.
(2) Management revenue is <u>at stable growth</u>, aided by the <u>contractual fee nature</u> for acquisition and development fees, asset management fees and priority distributions
(3) Private Capital Income has become a <u>substantial FFO contributor</u> to its bottom line – only second to "rental revenue from core portfolio" and "development profits". I will explore further in Chapter 4 (Merchant Development under Public REITs).

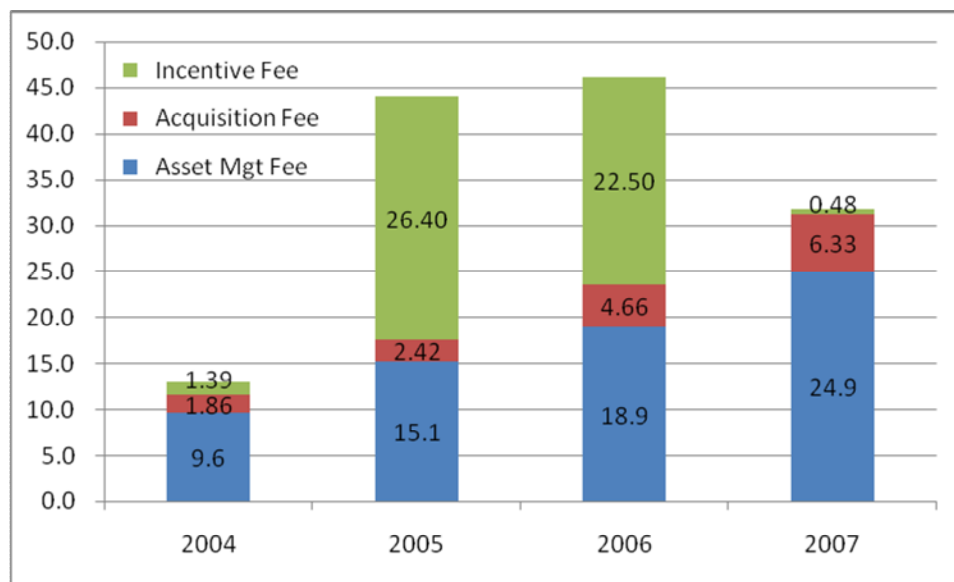
I further look into more detail breakdown of private capital income during 2004-2007. Figure 3.22 and Figure 3.23 suggest both asset management fee and acquisition fee have shown strong growth momentum. The incentive fees, as earlier discussed, is fluctuating over time, mostly depending on the realization of private real estate values.

Figure 3.22: Asset Mgt, Acquisition and Incentive Fees and their YoY Growth in 2004- 2007

Item	2004	2005	2006	2007
Asset Management Fee ($ Mn)	9.6	15.1	18.9	24.9
YoY (%)		***57%***	***25%***	***31%***
Acquisition Fee ($ Mn)	1.86	2.42	4.66	6.33
YoY (%)		***30.0%***	***92.6%***	***35.9%***
Incentive Fee ($ Mn)	1.39	26.40	22.50	0.48
YoY (%)		1799%	**-14.8%**	**-97.9%**
Private Capital Income ($ Mn)	12.9	43.9	46.1	31.7
YoY (%)		241%	5%	**-31%**

Source: 2004~ 2007 annual reports and 1Q 2008 Supplemental Analyst Package

Figure 3.23: Private Capital Income Component for AMB in 2004- 2007



Following the analysis of public REITs' private capital income by looking into AMB data, I further investigate how much fees a REIT typically earns from fund management. Figure 3.24 is summarized from Dr. Bradford Case' presentation at MIT.

Dr. Case showed a 50 bps fees cost to invest with REIT's private equity funds, which is lower than core real estate funds' 110 bps charged by typically real estate investment managers (such as TIAA-CREF or Prudential Real Estate Investors). ProLogis' public available information quotes this fee around 75-80 bps cost[36] to investment.

Figure 3.24: Fees and Expense for Various Real Estate Investment Products

RE Investment Products	Fees and Expense (bps)	Equivalent of Gross RE
REIT 3rd-party investment mgt	50	3% ~ 4%
Core real estate funds	110	11%
Separate accounts	115	11%
Value-added/opportunity funds	426 ~ 563	20% ~ 25%

Source: "Investing in Real Estate Through REITs (and Otherwise)", Bradford Case, Ph.D.,Vice President, Research and Industry Information, NAREIT, April 15, 2007 at MIT Center for Real Estate.

Dr. Case's number in 2008 is in line with Joanne Douvas' figures compiled in year 2003 (in Figure 3.15: Net Returns under Various Investment Strategies).

Why Public REITs' Private Capital Fund Charges Cheaper than REIMs' Funds?

For this question, I provide my reasoning as following.

a). REITs Have Better Economic of Scale then REIMs

Public REITs typically do not distinguish between assets owned directly by REITs and those held in the fund. Employees spend same effort on assets owned or co-owned by REITs. A lot of REITs do not managed properties in which they do not have any ownership stake. This approach allows properties under REIT management to benefit from public REITs' various level initiatives, including sharing the same umbrella insurance policy and the establishment of customer services and branding (particularly important for industrial REIT funds).

b). REIT Fund Management Faces Cost Mark-up from REIMs

I will make a hypothetical example from a corporate pension fund investing money at real estate investment managers' separate account.

[36] ProLogis NAREIT Presentation, June 4, 2007, page 17, $350K management fee/ $4.6 Mn equity = 0.76%

Prudential Real Estate Investors ("PREI"), a REIM, manages a full-discretionary $1,000 Mn separate account for a corporate pension plan (such as Dows, AT&T), charging Dows 115 bps of AuM. Dows expects this $1,000 Mn to be fully invested in private real estate within 3 years with a target return rate of 10% per annum. PREI can source available investment opportunities in direct real estate, core real estate funds, value-added funds, opportunistic real estate funds and real estate funds of fund.

As most REITs' private capital funds being "levered core" with net return at 9.4%-12.9% (Joanne Douvas' 2003 number in Figure 3.15) and PREI's charge of additional 115 bps fee, the net return for Dows might fall short of 10% target. Thus, REITs' private capital funds have to collect fewer fees to "attract" PREI to join their REIT JV/Fund platform. As of the matter of fact, in KimPru (2006) single partner JV between Kimco Realty and PREI, PREI was actually placing 3 separate accounts' money for the clients in KimPru JV.

Christopher Vallace (2007) also confirms "the avoidance of double promotes and other duplication of services/fees could improve net investor IRRs in many situations as much as 100-150 bps through reduction in the gross project level to net investor IRR leakage".

c). Private Capital Business Increases other Fees Stream for Public REITs

Since public REITs normally manage and operate the JV assets, the REITs can earn a series of property management, leasing, development fee and so forth. Thus, the return on public REITs' invested capital in the funds could be significantly enhanced. The self-managed nature of public REITs marks a distinct point vs. REIMs' outsourcing strategy for property management and leasing management. REIMs normally engage 3rd party professionals at "market rate price", such as Jones Lang Lassalle, CBRE or other local property management and brokerage firms. That is also why public REITs charge lower fund management fee than REIMs.

d). Public REITs Care More about FFO and NAV (Different Bottom Lines from REIMs)

The bottom line for public REIT and REIMs is slightly different – the former cares more about FFO growth and NAV (because of Wall Street's analysts); the latter cares more about price earnings multiple. I further explain this topic by analyzing how First Industrial has its own approach to interpret the fund management FFO contribution to its parent REIT (in Figure 3.25).

First Industrial combines JV Funds' pro-rate share of operation NOI, Fees (contractual and fixed) and incentive payment, and pro-rata share of Net Economic Gains as "Total FFO from JV Funds" in its financial supplement reports. First Industrial's "JV Funds FFO as a percentage of parent REIT's FFO" already

reached 25% in 2006. In my observation, 25% of FFO from private capital segment in a public REIT is not a small number.

Figure 3.25: First Industrial FFO from JV Funds

FFO from ($'000)	2004	2005	2006	2007
Pro-rata Share of Operations	-674	2,591	5,542	3,331
Fees	25,280	12,180	22,499	27,080
Incentive Payments	0	0	27,004	24,290
Pro-rata Share of Net Economic Gains	12,519	1,196	6,894	5,842
Less: Allocation of Income Taxes		-246	-9,165	-7,554
Total FFO from JV Funds	37,125	15,721	52,774	52,989
FR's annual FFO	167,391	176,855	209,411	234,700
JV Funds FFO as % of FR's FFO	**22.2%**	**8.9%**	**25.2%**	**22.6%**

Source: First Industrial Supplement Financials of 4Q 07' (p.51), 06' (p.45) and 05' (p.46).

Footnote

1). Beginning from 4Q 2006, First Industrial changes the way it allocated its income tax provision to its FFO from joint ventures

2). No breakdown of fees and incentive payments are provided in 2004/2005

3). "Net Economics Gains" results from all property sales; it measures the value created in the Company's capital recycling activities.

In my view, as Wall Street evaluates the public REIT share price by giving a P/FFO multiple, it is reasonable to see some REITs such as First Industrial eager to grow FFO through their REIT private capital platform.

3.4 To Consolidate or Not

In this section, I studied the original idea of this field (off-balance-sheet financing) in 1998 and why REIT would continue to run its private capital business through this type of financing arrangement. Even for up to 49% ownership funds, some public REITs prefer not consolidating the JV fund's debt into the parent REIT. I start this section by looking into the consolidation decision tree applicable for most public REITs, and compare that with Moody's consolidation methodology.

In addition, I further investigate the standard public REITs' bond covenant requirement that most governs the debt capacity of public REITs. Then, I also refer to three Figures (3.30 REIT Covenant Analysis, 3.31 REIT Liquidity and 3.32 Development Pipeline Ratio) used by Wall Street that can be used as monitoring indicators. Pension funds or REIMs can use these three Figures to check if there is a funding gap for them to provide (or structure) private capital to fund public REITs' development growth.

The Start of Kimco Income REIT's Off-balance-Sheet Financing

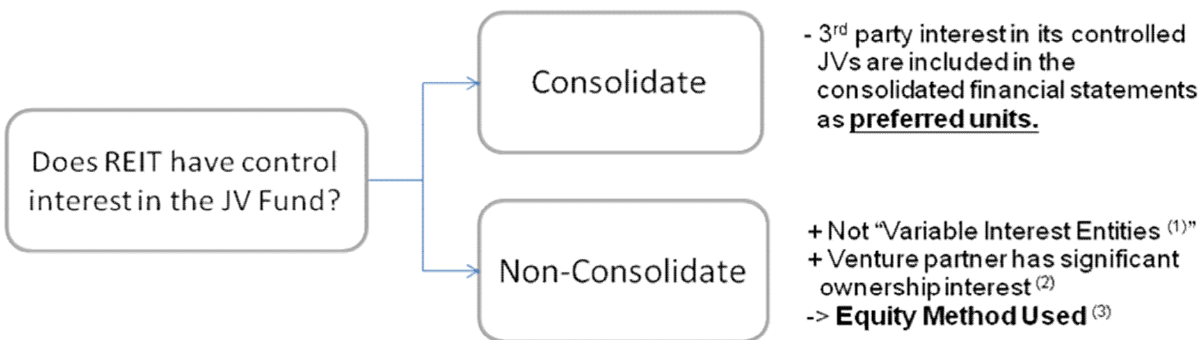
To consolidate the JVs debt or not is one of the key financing decision when public REITs set up its owned series of JV fund programs. Kimco Realty made it clear in Kimco Income REIT ("KIR") (1998) case. The fund objective for Kimco Realty was to hold non-controlling limited partnership in the KIR Fund and accounts for this investment under the equity method of accounting. This shall be deemed as off-balance sheet financing for parent Kimco Realty.

In my view, Kimco Realty actually runs KIR on a daily-basis and definitely has some control over the major buy/sell decision (or recommendation right at least) of the property portfolio. Kimco Realty, just like some public REITs, keeps highlighting they are non-controlling limited partnership, thus using the equity method of accounting and avoiding consolidating fund-level debt into the parent REIT.

Consolidation Decision Tree for Public REITs

Most public REITs' annual reports provide "summary of significant accounting policies" and the consolidation policies mostly are also included. I investigate Regency's consolidation policy in its 2007 annual report, and summarized its "Consolidation Decision Tree" in Figure 3.26.

Figure 3.26: Consolidation Decision Tree for Public REITs



Footnote:

(1). "Variable Interest Entities" are defined in Financial Accounting Standards Board Interpretation No. 46 (R) "Consolidation of Variable Interest Entities ("FIN 46(R)")

(2). Significant ownership refers to the JV partner has approval over operating budgets and strategic plans, capital spending, sales or financing, and admission of new partners

(3) Equity Method:

- Investments in the unconsolidated JVs are initially recorded at cost and subsequently increased for additional contributions and allocations of income and reduced for distributions received and allocation of losses.
- These investment are included in the consolidated financial statements as Investments in Real Estate Partnerships

Source: "Summary of Significant Accounting Policies", Regency Center, 2007 Annual Report, page 68.

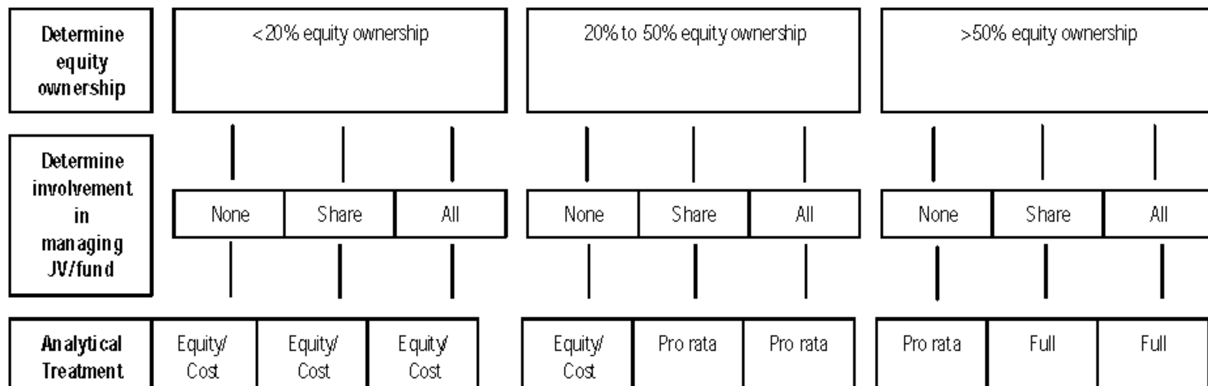
Regency Center's consolidation decision tree is quite similar to other 6 studied REITs. Most REITs have 10-25% ownership interest in their private equity funds, and clams they own "non-controlling partnership" in the funds. They typically take non-consolidation approach and use equity method to record their investments at cost in JV/Funds.

Moody's Methodology on Consolidation

Moody's has developed its quantitative and qualitative consolidation for balance sheet treatment in a report, titled "REIT Joint Venture and Funds: Weighing the Pluses and Minuses" in April 2006. The following sub-section is the excerpt of Moody's methodology.

Moody's take quantitative factors in determine the analytical treatment for REITs' JVs/funds to determine if an individual JV/Fund will be "fully consolidated", "pro rata consolidated", or "treated as a cost/equity method investment in a REIT's financial statements". Moody's also considers qualitative factor if a treatment different from the quantitative outcome is appropriate. Moody's consolidation decision tree for public REITs is provided in Figure 3.27.

Figure 3.27: Moody's Consolidation Decision Tree for Public REITs



Source: Moody's (2006)

1. The following characteristics result in **full consolidation:**
   i. an equity stake of greater than 50%, and
   ii. **involvement in managing the propertie**s in the JV/fund

2. The following characteristics result in **pro rata consolidation:**
   i. an equity stake greater than 50%, and
   ii. no participation in managing properties in the JV/fund

   Or

   iii. an equity stake of 20% to 50%, and
   iv. **involvement in managing the properties** in the JV/fund

3. The following characteristics result in **equity, or cost method, accounting** (primarily equity method except for instances of very low ownership):
   i. an equity stake of 20% to 50%, and
   ii. no participation in managing properties in the JV/fund

   Or

   iii. an equity stake less than 20%

If the properties are deemed to be "**mission-critical**" for the REIT, we would tend to do a full consolidation, regardless of REIT ownership level.

Figure 3.28 shows the qualitative factors that Moody's considers determining the analytical treatment of individual JVs/funds.

Figure 3.28: Moody's Qualitative Factors For Consolidation

1. Nature and purpose of structure: Merchant building, JVs, Funds
   a.) Merchant building – Normally these are short-term arrangements in which the REIT is committed to buy the property when developed. These are often fully consolidated as Moody's considers these to be off-balance sheet development financing due to the REIT's residual risk to purchase property.
   b.) JV – Property acquisition/investment vehicles. Often pro rata consolidated as risk/rewards are shared between REIT and partner under many structures.
   c.) Funds – Normally institutional investment vehicles in which the REIT takes a small stake to demonstrate parallelism of interest, and is normally focused on management and other fees, such as promotes
2. Timing and process to liquidate (buy-out provisions)
3. Any guarantees/funding agreements among investors in the JV/fund
4. Rights of JV/Fund partners (kick outs, participations) and any history of using these rights
5. Types of management activities performed
6. Amount (if any) of financing provided to JV/Fund by owners
7. Likelihood of REIT providing non-contractual support to the JV/fund
8. REIT's "normal" timeframe for holding JV/Fund investments
9. Character of properties
10. Size of JV/Fund in comparison to overall REIT operations
11. Strength of partners
12. Management strategy, and how fees might affect REIT's decision-making

Source: Moody's (2006)

In my view, Moody's has stricter qualitative factors than public REITs' consolidation decision tree. For JV Fund that REITs have "involvement in managing the properties", these funds will be required to consolidate into the parent REITs' balance sheet, if by applying Moody's qualitative measures.

Bond Covenant Requirement for Public REITs

I further investigate the standard bond covenant requirement for public REITs. Art Gering (2004) wrote an article on "Bonds – REIT Bonds" in Sept/October issue of NAREIT Real Estate Portfolio Magazine. Figure 3.29 summarized the standard REIT bond covenant requirement that Art Gering mentioned.

There are three incurrence tests and one maintenance test for REIT's bond financing. "Incurrence Test" means additional debt can't be incurred if any of these covenants are violated; "Maintenance Test" means it must be met at all times, not just when the new debt is incurred. Art Gering (2004) states "The unencumbered property portfolios ensured by debt covenants are a vital resource for REITs. The flexibility it provides enhances the recovery prospect unsecured bondholders. REIT covenants also promote stability in a firm's debt rating."

Figure 3.29: Standard REIT Bond Covenant Requirement

Covenant	Definition	Test Type	Standard Ratio
Undepreciated Book Leverage	Total Debt / (Total Book Capital + Accumulated Depreciation)	Incurrence	< 60%
Secured Debt Leverage	Total Secured Debt / (Total Book Capital + Accumulated Depreciation)	Incurrence	< 40%
Fixed Charge Coverage	EBITDA / (Interest Expense + Capitalized Interest + Preferred Dividends)	Incurrence	1.5X
Unencumbered Test	Unencumbered Asset / Unencumbered debt	Maintenance	>150%

* Incurrence Test means additional debt can't be incurred if any of these covenants are violated ; Maintenance Test means it must be met at all times, not just when the new debt is incurred

Source: "Bonds - REIT Bonds", Art Gering, Real Estate Portfolio Magazine, Sept/Oct 2004.

Bear Stern[37] (2008) and JP Morgan Research[38] (2008) provide a good covenant analysis framework. 7 studied REITs' statistics are summarized in Figure 3.30. I find First Industrial has only marginally met the requirement for recurring EBITDA coverage of 1.5x. That might also explain why First Industrial has been seeking various off-balance-sheet fund management programs (with CalSTRS) to fund its asset growth during 2005-2007.

Figure 3.30: Covenant Analysis for 7 Studied REITs As of 07YE

REIT	Total Debt/ Total Assets	Required	Secured Debt ($Mn)	Secured Debt/ Total Assets	Required	Recurring EBITDA Coverage				
						Recurring EBITDA ($ Mn)	Interest Expense	Interest Incurred	Fixed Charge	Required
ProLogis	53%	<65%	1,327	7%	<40%	270.5	3.3	2.2	2.1	>1.5
AMB Property	46%	<60%	1,312	18%	<40%	126.8	4.2	2.6	2.3	>1.5
First Industrial	60%	<60%	74	2%	<40%	**48.6**	**1.6**	**1.5**	**1.3**	**>1.5**
Weingarten	63%	<60%	1,040	21%	<40%	110.5	2.9	2.5	2.1	>1.5
Kimco Realty	46%	<65%	1,085	12%	<40%	166.5	3.0	2.7	2.3	>1.5
Regency	48%	<60%	203	5%	<40%	74.0	3.2	2.3	1.9	>1.5
DDR	62%	<65%	2,259	25%	<40%	163.8	2.5	2.2	2.0	>1.5

Interest Incurred = EBITDA/ (Interest Expense+ Capitalized Interest)
Interest Incurred = EBITDA/ (Interest Expense+ Capitalized Interest+ Preferred Distributions)
Source: "REIT Quarterly", page 40, Bear Sterns, March 10, 2008; North America Credit Search, p.20 and p.23, JP Morgan, March 28, 2008

In Figure 3.31, Bear Sterns Research (2008) tracks the REIT liquidity by following closely each REIT's bank line availability, cash position, debt maturity (2008 and 2009), expected development funding and REITs' Free Cash Flow. Bearn Sterns comes out a "liquidity dollar amount", to be equivalent of a percentage of total assets and shareholder equity of each REIT. For example, First Industrial's $144 Mn negative liquidity will be equivalent of its 22.15% total shareholder equity. This ratio further indicates the need for First Industrial to seek additional capital to fund its development projects. Off-balance-sheet financing through private capital funds shall be a good option for First Industrial.

[37] Berliner, Susan; Litwok, Yoni, "REIT Quarterly- Half Full?", Bear Sterns, March 10, 2008.
[38] Streeter, Mark; Katz, Dave; Gieskes, Joost J., "Total REIT Call – REIT Sector Quarterly Reference", J.P. Morgan Securities Inc, North America Credit Research, March 28, 2008.

Figure 3.31: REIT Liquidity for 7 Studied REITs

Unit: $ Mn, as of 07YE

REIT	Bank Line Availability	Cash Position	Debt Maturity 2008	Debt Maturity 2009	Expected Development Funding (1)	Free Cash Flow (2)	Liquidity	Total Asset	Total SH Equity	Liquidity/ Total Asset	Liquidity/ SH Equity
ProLogis Trust	1,791	419	964	962	1,000	744	28	19,724	7,086	0.14%	0.39%
AMB Property	624	250	388	127	499	150	11	7,262	2,541	0.15%	0.43%
First Industrial	178	6	3	133	256	65	**(144)**	3,258	649	-4.41%	**-22.15%**
DDR	620	50	361	399	283	261	(112)	9,090	2,444	-1.23%	-4.58%
Kimco	1,517	88	496	314	357	287	726	9,098	3,260	7.97%	22.26%
Regency	392	11	24	63	460	128	(16)	4,143	1,595	-0.38%	-0.99%
Weingarten	175	66	255	114	171	(71)	(369)	4,993	924	-7.39%	-39.90%

(1) Expected development funding for 2008-2009

(2) Free cash flow, estimated by Bear Sterns

Source: "REIT Quarterly", page 45, Bear Sterns, March 10, 2008

In Figure 3.32, Bear Sterns (2008) provides a "development pipeline ratio" for REIT industry. I have summarized 7 studied REITs and add a covered REITs average (total 29 listing REIT covered by Bearn Sterns). Columns from left to right are total development pipeline in dollar amount, percentage of the pipeline pre-leased or funded, pipeline as % of total assets, pipeline as % of shareholder equity, pipeline as % of book capital, pipeline as % of total market capitalization. 7 studied REITs on average have slightly higher pipeline ratio than the 29 REIT average. ProLogis, Kimco, and AMB are the three REITs with the largest total development pipeline, all worth above $1.5 Bn.

Figure 3.32: Development Pipeline Ratio for 7 Studied REITs and Industry Average

REIT (As of 07YE)	Total Development Pipeline ($ Mn)	Preleased (%)	Funded (%)	Pipeline/ Total Assets	Pipeline/ SH Equity	Pipeline/ Book Capital	Pipeline/ Total Mkt Cap (%)
ProLogis Trust	**$3,798**	27.80%	52.3%	23.9%	62.8%	**26.2%**	15.8%
AMB Property	**$1,713**	22.90%	70.9%	25.5%	88.1%	**29.1%**	18.2%
First Industrial	$256	50.00%	70.0%	7.9%	36.7%	9.5%	5.8%
Weingarten	$629	na	54.2%	14.4%	64.3%	15.7%	8.8%
Kimco	**$1,959**	53.50%	74.9%	24.9%	61.4%	**27.2%**	12.7%
Regency	$1,067	61.00%	43.7%	29.0%	67.6%	32.9%	14.6%
DDR	$894	na	60.2%	12.5%	49.9%	14.5%	7.5%
7 Studied REIT Avg	$1,474	43.0%	60.9%	19.7%	61.5%	22.2%	11.9%
Covered REIT Avg.*	$1,065	48.5%	50.7%	15.4%	53.7%	17.2%	9.6%

*The average for Bear Sterns covers 29 listing REITs

Source: "REIT Quarterly", page 46, Bear Stearns, March 10, 2008.

In my view, this "Development Pipeline Ratio" Figure along with the previous two Figures (REIT covenant analysis and REIT Liquidity) can also serve as monitoring indicators for pension funds and REIMs to see if there is a funding gap for them to provide (or structure) private capital to fund REITs' development growth

Chapter 4 Merchant Development under Public REITs

4.1 Merchant Development for Public REITs and its Private Capital

4.2 Merchant Development Economics

Chapter 4 is the extension of Chapter 3, part of the characterization of private capital funds under public REITs. Merchant development, in my view, is one key component that <u>cannot be missed</u> in analyzing the private capital business under public REITs.

In Section 4.1, I relate merchant development activity to the parent REITs and their private capital. I explain this concept by examining the following topics.

1. What is Merchant Development?
2. Merchant Development vs. The REIT Modernization Act (1999)
3. ProLogis' Corporate Distribution Facilities Services ("CDFS")
4. CDFS Assets Are Not Depreciated
5. ProLogis Business Model – Industrial REIT
6. Regency Center Business Model – Retail REIT
7. FFO Component Comparison for Industrial and Retail REIT
8. Why Merchant Development Gain Accounts >50% FFO for Industrial REITs?

In Section 4.2, I demonstrate the nature of merchant development economics and explain why public REITs like to pursue the merchant development, or to the next level, to contribute the merchant gains to the fund. This is particularly true for ProLogis' business model which I have discussed in Section 4.1. I cover the following topics in this section.

1. Valuation Creation via Merchant Development
2. Valuation Creation via Merchant Development into Fund
3. Cashflow Comparison between Private Property Market and Public REIT Market
4. Price/Multiples for Various Income Streams of a Public REIT
5. Moody's Analytical Framework for Property Investment Structures

4.1 Merchant Development for Public REITs and their Private Capital

I start this section by giving the definition of merchant development. Then I explain how merchant development business model was made possible by the introduction of The REIT Modernization Act (1999). I use Kimco Developers Inc. (KDI), a wholly-owned TRS of Kimco Realty to see how it plays an important role to grow Kimco's overall business. I further look into ProLogis' CDFS business segment and discuss how this segment is heavily associated with the ProLogis fund growth and ProLogis business strategy. I continue to make an example in Regency Center to explain if there is strategy differentiation between retail REITs and industrial REITs (ProLogis).

I end this section by comparing FFO breakdown into 3 components – "core portfolio", "fund management fee and incentive" and "merchant development gains" – for industrial and retail REITs. I found industrial REITs' FFO relies heavily on merchant development gain than retail REITs'. The result is not surprising, as evidenced by ProLogis' external growth being all "restored and accumulated" in its CDFS business. ProLogis then makes 80% development gain by contributing 80% equity interest to its managed funds, where ProLogis maintains 20% interest.

What is Merchant Development?

Merchant development is the business by which REITs develop new properties, but rather than operate them in their core portfolios, REITs may sell them to investors or sometimes to users (office tenants, mall operator, hotel operator, or industrial space occupiers). Kimco Developers, Inc, ("KDI") wholly-owned TRS of Kimco Realty Corporation, provides an activity overview for the merchant development under public REITs.

KDI's primary operating business is to build the retail properties for retailers or for local developers. KDI, established in 2001, have developed over 12 million square[39] feet of retail centers all over the country. KDI pursues the development of shopping centers with national credit tenants, both on Kimco's balance sheet and through joint ventures with local developers. KDI's income is generated from the gain on sale of development properties. The income is volatile, depending on the amount of assets sold and price achieved above cost.

[39] Development figures cited from http://www.kimcodevelopers.com/about.asp , accessed on July 8, 2008.

ProLogis' Corporate Distribution Facilities Services ("CDFS")

Corporate Distribution Facilities Services (CDFS) segment of ProLogis is the largest industrial merchant developer in the US. CDFS originates from ProLogis customers who wanted ProLogis to build them a industrial facilities for a fee. With the formation of ProLogis European Property Fund (1999) and ProLogis California Fund (1999), ProLogis' development activity was classified as CDFS. In European, European Property Fund was structured to take out every stabilized built-out facility, subject to the property meeting certain leasing and other criteria. The full description ProLogis European Fund is provided as following[40]:

> "ProLogis is obligated to contribute stabilized developed properties in certain specified markets in Europe to ProLogis European Properties Fund, subject to the property meeting certain leasing and other criteria through September 2019".

With the evolution of past few years, today CDFS segment of ProLogis represents[41]:

- Development of real estate properties that are subsequently contributed to a property fund in which ProLogis has an ownership interest and act as manager, or sold to third parties.
- To acquire properties with the intent to rehabilitate and/or reposition the property prior to it being contributed to a property fund.
- To acquire a portfolio of properties with the intent of contributing the portfolio to an existing or future property fund.
- To engage in other development activities directly and through joint ventures in which ProLogis invest.

CDFS Assets Are Not Depreciated

Gains on real estate sales, according to NAREIT's FFO measures, should be excluded. NAREIT's FFO measures adjust GAAP net earnings to exclude historical cost depreciation and gains/losses from the sales of previously deprecated assets[42]. ProLogis addresses this issue by not depreciating the assets (either newly developed or acquired) in CDFS business segment. Any gain and loss over its historical book cost goes into ProLogis' CDFS calculation. This accounting treatment has long been an argument within the industry and NAREIT for the past few years. I will elaborate this topic in Section 6.2 (The Future of Public REIT-sponsored Private Capital Fund).

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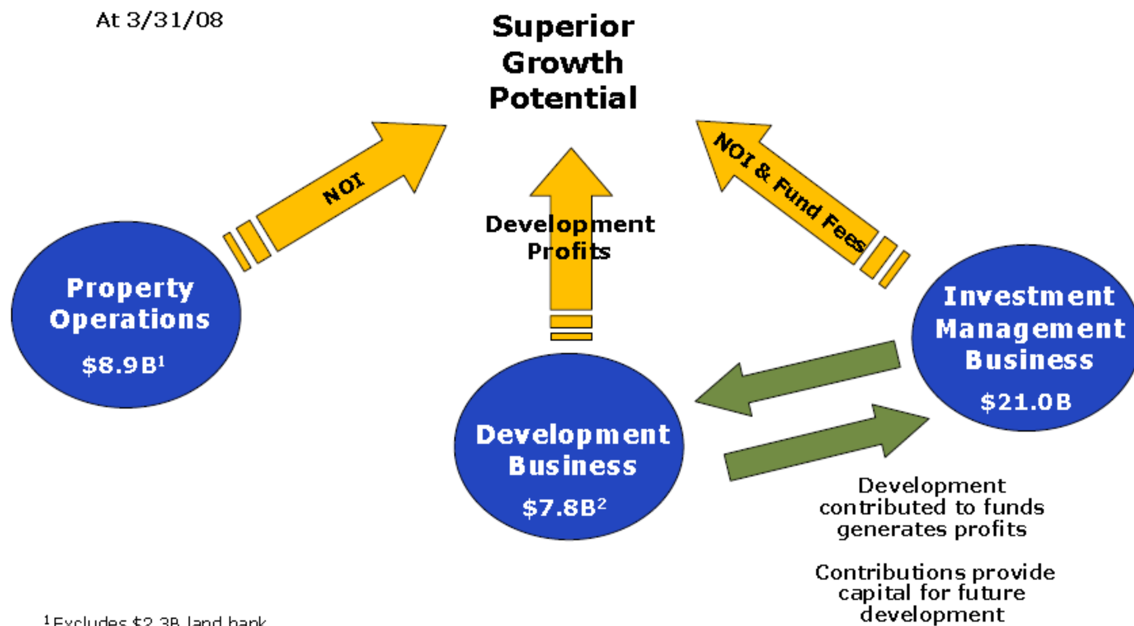
[40] ProLogis 2002 10K, page70.
[41] ProLogis 2007 10K, page 8.
[42] Excerpt from page 3 of ProLogis 2005 annual report.

ProLogis Business Model – Industrial REIT

Figure 4.1, in my view, well summarizes ProLogis' business model. There are three business elements – merchant building, core portfolio and fund management.

Figure 4.1: ProLogis Business Model



Source: ProLogis' NAREIT Presentation, June 4, 2008

ProLogis builds distribution properties, and contributes to its managed property funds, once the properties are stabilized. A portion of development profits (typically 20%) is co-invested into the Funds. ProLogis manages the property fund earning fund management fees as well as the proportional net operating income for the properties held in the Funds. The 80% capital is recycled into the next development projects.

In my view, ProLogis fund management (i.e. private capital) is very strategic to its business growth. In 1999, ProLogis decided that public capital market is not likely to provide additional capital to fund their business growth (similar to the rational of Kimco and DDR in 1998-2000). ProLogis decided to access capital to defined investment objectives by "carving out" the existing portfolio, properties in California for example; or taking out newly developed properties in each specific country (Japan, Europe, Korea and etc) and recycle its capital into new projects. By doing so, ProLogis continues to use the same resources to generating a fee income to its fund management business. ProLogis typically maintains 20% ownership in each ProLogis' managed funds.

Figure 4.2: ProLogis FFO Breakdown of Core Portfolio, Merchant Gain and Asset Mgt Fee

Source of FFO	2006		2007		2008 (E)	
	$ Mn	%	$ Mn	%	$ Mn	%
Core Portfolio	400.7	42%	316.7	25.7%	330.9	26.0%
Fund Mgt Fee	211.9	22%	104.7	**8.5%**	136.2	10.7%
Merchant Gain (CDFS)	333.7	35%	810.4	**65.8%**	805.7	63.3%
FFO	946.3	100%	1231.8	100.0%	1272.8	100.0%

Source: Page 6, Citigroup Research, 1Q 2008 Result on ProLogis, April 24, 2008.

Figure 4.2 illustrates the breakdown of ProLogis FFO (2006 actual, 2007 actual, 2008 est.). Merchant gain (CDFS) and fund management fee together accounts 75% of its annual FFO. ProLogis' number is observed as the highest in the REIT industry. The same number for AMB's case is at 55% for 2007 (in Figure 4.3). ProLogis is highly regarded as the best merchant developer and fund manager in the public REIT arena.

Figure 4.3: AMB FFO Breakdown of Core Portfolio, Merchant Gain and Asset Mgt Fee

Source of FFO	2006		2007		2008 (E)	
	$ Mn	%	$ Mn	%	$ Mn	%
Core Portfolio	145.4	48.8%	165.0	45.2%	157.1	38.3%
Private Capital Fee	46.1	15.5%	31.7	**8.7%**	58.3	14.2%
Development Profits	106.4	35.7%	168.7	**46.2%**	194.5	47.5%
FFO	297.9	100%	365.5	100%	409.9	100%

Source: Page 6, Citigroup Research, 1Q 2008 Result on PLD, April 16, 2008.

Regency Center Business Model – Retail REIT

Figure 4.4: **Regency Center Business Model**

Source: Regency Center, 1Q 2008 Analyst Meeting Material

I want to investigate if leading REIT managers' business model would be different between industrial REITs and retail REITs.

I examine this topic by looking into the business model of Regency Center in Figure 4.4.

I find that Regency Center has the similar business model as ProLogis' three key elements.

1). Core Portfolio

2). Merchant Development

3). Co-Investment Partnership

Regency Centers, in 1Q 2008 Analyst Meeting slides, also discussed how its co-investment partnership has made its capital recycling possible, and to minimize its requirement for new equity. Regency stated," Since 2000, Regency's over $8.0 Bn investment has less than 5% funded by new equity", as illustrated in Figure 4.5

Figure 4.5: Funding Sources and Investment Uses for Regency Center (2000-2007)

Uses:	$ Mn	% of Total
Development Completions and In-Process Developments	$3,039	34.7%
Acquisitions and Partnership Contributions	$5,719	65.3%
Total Investment Uses	$8,757	100.0%
Sources:		
Property and Outparcel Sales	$2,290	26.2%
Partnership Capital	$3,491	39.9%
Debt, Preferred, Free Cash Flow	$2,675	30.5%
Common Equity and Units Total Sources	$301	**3.4%**
Total Sources	**$8,757**	100.0%

Source: Regency Company presentation on 1Q 2008.

FFO Component Comparison for Industrial and Retail REIT

Figure 4.6 shows Regency Centers FFO breakdown in three elements during 2004-2007. Kindly note that property NOI from typical 20-30% ownership of Regency managed funds (total fund gross assets at 07YE is $4,664 Mn) is also included as part of core portfolio income. The statistics suggest that merchant development gain is a little volatile, but it does provide significant FFO contribution (20% in 2007) to Regency Center as a public REIT. Asset management fee also had grown to a level of 10% of its total annual FFO since 2006.

Figure 4.6: Regency FFO Breakdown

Source of FFO	2004		2005		2006		2007	
	$ Mn	%	$ Mn	%	$ Mn	%	$ Mn	%
Core Portfolio	147.0	73.2%	190.9	78.8%	182.1	67.5%	207.3	**70.5%**
Asset Management Fee	10.7	5.3%	10.7	4.4%	28.7	10.6%	29.4	**10.0%**
Merchant Development	43.2	21.5%	40.8	16.8%	59.2	21.9%	57.2	**19.5%**
FFO	200.9	100%	242.4	100%	270.0	100%	293.9	100%

Source: 4Q 2005-2007 Financial Supplement, Regency Center

The combination of asset management fee and merchant development gains account 29.5% of 2007 Regency FFO, which is the highest among 4 studied retail REITs (illustrated in Figure 4.7). The same average number for 4 retail REITs stands at 18.90%.

Figure 4.7: 2007 FFO Breakdown for 4 Retail REIT Managers

Source of FFO	Weingarten		Kimco *		Regency		DDR		Avg
	$ Mn	%	$ Mn	%	$ Mn	%	$ Mn	%	
Core Portfolio	251.0	92.2%	574.9	84.6%	207.3	70.5%	396.3	76.8%	81.0%
Asset Management Fee	8.2	3.0%	54.8	8.1%	29.4	10.0%	50.8	9.9%	7.7%
Merchant Development Gain	13.0	4.8%	49.9	7.3%	57.2	19.5%	68.9	13.3%	11.2%
FFO	272.1	100%	679.7	100%	293.9	100%	516.0	100%	100.0%

* Core Portfolio of Kimco Realty also includes income from Kimco Preferred Equity, Kimco Exchange Place and Kimco Select Investment and Retail Property Solutions.
Source: WRI, KIM, Regency, DDR 4Q 2007 Financial Supplement

Figure 4.8 provides the 2007 FFO breakdown for 3 industrial REIT managers. The average number for fund management and merchant development reached 13.1% and 51.5% respectively. On merchant development gains, the 51.5% average for industrial REITs is substantially higher the average 11.2% of four retail REIT managers.

Figure 4.8: 2007 FFO Breakdown for 3 Industrial REIT Managers

Source of FFO	ProLogis		AMB		First Industrial		Avg
	$ Mn	%	$ Mn	%	$ Mn	%	
Core Portfolio	316.7	25.7%	165.0	45.2%	82.2	35.3%	35.4%
Fund Mgt Fee and Incentive	104.7	8.5%	31.7	8.7%	51.4	22.1%	13.1%
Merchant Development Gain	810.4	65.8%	168.7	46.2%	99.3	42.6%	51.5%
FFO	1231.8	100%	365.5	100%	232.9	100%	100.0%

Source: ProLogis, AMB, First Industrial 4Q 2007 Financial Supplement

In summary, ProLogis and Regency Center, the two leading fund managers in public REIT arena, have provided good frameworks to look into their merchant building, core portfolio and fund management that, in my view, is the three indispensible components for the success of public REITs' private equity business.

Why Merchant Development Gain Accounts >50% FFO for Industrial REITs?

In my view, growth of public REITs' FFO can come from internal and external drivers. Internal growth driver includes occupancy growth and NOI growth from same-store properties, which will be condensed in "core portfolio growth". External driver includes merchant development and fund management income.

I found industrial REITs' FFO (51.5% of FFO) relies heavily on merchant development gain than retail REITs' (11.2%). The result is not surprising, as evidenced by ProLogis' external growth being all "restored and accumulated" in its CDFS business. In addition, the finding can also be supported by the fact that an industrial facility is more a single tenant tailor-made than retail one.

Industrial merchant developers, such as ProLogis, can take the order from the clients first before the development projects' rolling into ProLogis development platform. Project inception to completion and stabilization (selling to Fund) takes 1-2 year time frame as ProLogis described.

Conventional distinction between REITs and other real estate companies is that a REIT must acquire and develop its properties primarily to operate then as part of its own portfolio, rather than to resell them once they are developed. However, given the fact that REITs are required to dividend out 90% net income (around 50-70% FFO) and reserve little capital on balance sheet to deploy new projects, I have observed leading REITs to capitalize on merchant development and fund management as part of REITs' key strategies.

I will further examine the impact of merchant development-skewed FFO from the regulatory perspective in Section 6.2 (The Future of Public REIT's Private Capital Fund).

4.2 Merchant Development Economics

In this section, I demonstrate the valuation creation by 1). One-time off merchant development gain and, 2). Contributing 80% interest to a REIT private capital fund.

Firstly, I start with a three-year development project and exit as an example. Second, I shorten the merchant development into a two-year project in order to better reflect the industrial facilities development nature for ProLogis. Third, I model ProLogis business logic to contribute 80% equity interest to the fund and defer 20% gain after a 9-yr fund exit. I demonstrate "return on invested capital" for a total 11-year project life (2-yr development project plus 9-year fund life) lower than a 2-3 year development projects but substantially higher than the parent REITs' Return on Equity ("ROE").

In addition, I make a comparison table for private real estate and public REIT, and show the value driver for these two segments of real estate business. I then examine the NAV breakdown of AMB to understand how Wall Street values various price multiples on NOI form core portfolios, private capital income, merchant building income, and NOI from unconsolidated JVs. These 4 assigned capitalization rates may also reflect capital market's view on the risk profile for these four income sources.

Valuation Creation via Merchant Development

Figures 4.9 assumes a development project with following nature: total development cost $500 Mn, funded by 60% equity and 40% debt, a 9% stabilized yield on development cost, and a 6% exit cap rate (as of 2Q 2008 market data). Capitalizing the stabilized $45 Mn NOI at 6%, the development sale price can reach $750 Mn. This project provides $250 Mn value creation and 1.83 return on equity invested, equivalent to 22.4% IRR.

Figure 4.9: Valuation Creation via Merchant Development (3-yr project)

Development Delivery Cost ($ Mn)	500	a portfolio of properties assumed
Equity	300	60%
Debt (Principal and Interest payment)	200	40%
Stabilized Yield on Development Cost	9%	Avg. of Kimco, DDR, ProLogis at 4Q 2007 Reports
Stabilized NOI Yield on Cost ($ Mn)	45	= $500 Mn * 9%
Exit Cap Rate	6%	1Q 2008 Market
Development Sales Price	750	= NOI/ Exit Cap Rate
Value Creation	250	= Sales Price - Development Delivery Cost
Return on Equity Invested (X)	1.83	= (Sales Price - Debt)/ Equity Invested
IRR (%)	**22.4%**	Assuming 3 years projects (2 year ground development plus 1 year stabilized)

Source: the Author

I extend the model into a 2-year development to "simulate" the business nature of ProLogis' industrial portfolio build-out in Figure 4.10. Using the same yield parameters, the IRR could be enhanced to 35.4%.

Figure 4.10: Valuation Creation via Merchant Development (2-yr project)

Development Delivery Cost ($ Mn)	500	
Equity	300	60%
Debt (Principal and Interest payment)	200	40%
Stabilized Yield on Development Cost	9%	
Stabilized NOI Yield on Cost	45	
Contributing Cap Rate	6%	
Development Sales Price	750	= NOI/ Exit Cap Rate
Value Creation	250	= Sales Price - Development Delivery Cost
Return on Equity Invested (X)	1.83	= (Sales Price - Debt)/ Equity Invested
IRR	**35.4%**	2 years project assumed; ProLogis' case for industrial product build-up

Source: the Author

Valuation Creation via Merchant Development into Fund

I created three separate calculations in Figure 4.11 – 1). Gross Asset Value at Fund Inception, 2). Earnings Calculation for Asset Sale to Fund and 3). Exit at Fund Life's End, T=9 – in order to better demonstrate a valuation creation process via a 2-year merchant development, merchant development gain into the fund, and 9-year fund management life and exit at Yr 11.

1). Gross Asset Value at Fund Inception: Gross asset value at fund inception is $750 Mn, i.e., the "development sales price" at Figure 4.10. With the fund platform, the leverage ratio is assumed at 60%, 20% higher than 40% assumed at parent REIT level shown in Figure 4.19 and 4.10. Thus, $300 Mn equity capitalization is required for this $750 Mn fund portfolio. ProLogis seeks 80% external equity money ($240 Mn) from investors. $240 Mn is also shown at Figure 4.12 as "80% asset ownership sales to fund investors".

ProLogis charges 80 bps for fund management fee and no fund incentive fee is considered in this simplified model. Annual fund management will be $1.92 Mn (=$240 Mn investor equity * 0.80%). For the Fund's cost of debt, I assume 5% by using ProLogis' credit. Annual fund interest expense will be $22.5 Mn (=$450 Mn debt * 5.0%).

2). Earnings Calculation for Asset Sale to Fund: Development sales value is assumed $750 Mn, net of $500 Mn total development cost, $250 development gains recorded. Total $250 Mn development gain can be split $200 Mn for the 80% sale to the Fund and $50 Mn as deferred gain for ProLogis. Only $200 Mn

development gain recognized at Asset Sales to Fund at T=2.

3). **Exit at Fund Life's End, T=9**: I assumed 0% capital gain, by using same cap rate for exit and NOI $45 Mn (zero NOI growth assumed). $750 Mn disposition price equals to "development sales value" when project portfolio is sold to Fund at T=2. Fund-level exit gain $300 Mn achieved after repayment of debt principal $450 Mn. Exit gain then splits into Investors $240 Mn (80%) and $60 Mn (20%) for ProLogis.

Figure 4.11: REIT's IRR (from Project Inception, Contributing to Fund and a 9-yr Fund Life)

Gross Asset Value at Fund Inception	750	$45 Mn NOI/ Contributing Cap Rate 6.0%
Debt	450	60%
Equity	**300**	**40%**
REIT Equity	60	20%
Investor Equity	240	80%
Est. Fund Mgt Fee (bps)	80	ProLogis' number, 1Q 2008 data point
Annual Mgt Fee Income	1.92	
Property NOI	45	$500 Mn development cost * 9%
Property Yield	6.0%	= $45 Mn/ $750 Mn gross asset value
Exit Cap Rate	6.0%	Assumed at fund life's end, T=9
Cost of Debt	5.0%	Assumed, by using REIT's credit
Annual Fund Interest Expense	22.5	$450 Mn debt * 5.0%
Earnings Calculation for Asset Sale to Fund		
Development Sales Value	750	
Less: Total Development Cost	-500	
Development Gain	**250**	
Gain Recognized (80%)	200	Development Gain* 80% Sale
Deferred Gain (20%)	50	Reduction in ProLogis' basis in Fund
Exit at Fund Life's End, T=9		
Disposition Price	750	Stable $45 Mn NOI/ 6.0% Exit Cap
Less: Debt Principal Repayment	-450	
Fund-level Exit Gain	**300**	
Proceeds to Investors	240	Assumed 0% Capital Gain, by using same cap rate for exit and NOI $45 Mn
Proceeds for REIT	60	
Footnote: No fund incentive fees considered in the model		

Source: the Author's calculation based on p. 17, Simplified Example of Capital Recycling Model of ProLogis, NAREIT Week Presentation on June 4, 2008

Figure 4.12 shows an 11-yr project life's IRR at 26.9%. It is assumed a 2-year development project and a 9-yr fund life starting from asset sales to Fund. Detailed calculation is explained below.

At Yr 0, ProLogis (the REIT) incurs $300Mn equity investment cost. At Yr 2, ProLogis recognizes development gain of $200 Mn and 80% asset ownership sales to fund investors of $240 Mn. As 20% equity ownership to the Fund, ProLogis can accrue $9.0 property NOI per year (=$45 Mn * 20%) and $1.92Mn annual fund management fee. In the same time, ProLogis needs to pay 20% annual interest expense at $4.5

Mn (=$450 Mn * 5.0% * 20%).

For fund disposition, ProLogis can be allocated of $60 Mn gain (=20% * $300 Mn fund level exit) and recognize $50 Mn deferred gain at the exit of total project.

Figure 4.12: Sample IRR for REIT (from Project Inception, Contributing to Fund and a 9-yr Fund Exit)

	Fund Life		T=0	T=1	T=2	T=3	T=4	T=5	T=6	T=7	T=8	T=9
Project Life ($ Mn)	Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11
Equity Investment Cost	(300)											
Development Gain Recognized (80% Sale)			200									
80% Asset Ownership Sale to Fund Investors			240									
Property NOI (20% to REIT)		0.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Interest Expense (20% incurred to REIT)				(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)
Fund Mgt Fee Income				1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92	1.92
Disposition Proceeds for REIT												60.0
Deferred Gain Recognized												50.0
Net Cashflow	(300)	0.0	449	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	116.4
IRR	**26.9%**											

This simulated IRR return is less than 35.4% IRR of direct property sale in the previous 2-year life example (Figure 4.10). But it does say in the longer time frame (11-yr), ProLogis can earn 26.9% IRR on equity investment cost of $300 Mn vs. two-year at 35.4% IRR through one-time off merchant gain. This 26.9% return on invested capital is actually higher than the 7 studied leading REITs' ROE at 6-10% (2007 figures in Figure 4.13). 2007 ProLogis ROE of 14.6% ranks the highest among the 7 studied REITs.

Figure 4.13: 2007 ROA and ROE for 7 Studied REITs

Financials	ProLogis	AMB	FR	WRI	Kimco	Regency	DDR	7 REITs Avg
Return on Average Assets	5.5%	4.3%	-2.6%	3.0%	4.2%	4.2%	2.0%	2.9%
Return on Average Equity	14.6%	10.0%	-7.1%	9.7%	9.4%	9.9%	6.4%	**7.6%**
Equity Asset Ratio	37.8%	42.7%	37.3%	31.2%	45.2%	42.6%	30.9%	38.2%

Source: Google Finance on July 15, 2008.

Using this numerical example, I have demonstrated how "lucrative" of fund management segment (i.e. private capital) under public REITs can be. The IRR-enhancement, as demonstrated, can come from the following five elements.

1). A pre-determined price for development project exit – the most important part!

2). A gearing increase – from 40% (of Development Cost) at parent REIT level to 60% (of Development Sales Value) at fund level, thus equity capital recycled for the parent REIT.

3). Sale of typical 80% equity to external investors

4). Fund management income (yet modeling the incentive fee).

5). Future NOI growth for higher fund exit value (assuming no exit cap rate gain)

Cashflow Comparison between Private Property Market and Public REIT Market

Figure 4.14, combined from David Geltner et al. (2007) and Merrill Lynch[43], provides a good summary of the cashflow comparison between private property market and public REIT market. Private property market valuation is based on NOI/ Cap Rate, which is different from public REIT market on Share Price = (AFFO/Share) * (P/AFFO Multiple) or other yield spread metrics listed in Figure 4.14.

Figure 4.14: Cashflow Comparison between Private Property Mkt and Public REIT Market

Private Property Market **Annual Cash Flows from Operations**	**Public REIT Market** **Annual Cash Flows from Operations**
Effective Gross Income (EGI) - Operating Expenses (OEs) **= Net Operating Income (NOI)** - Capital Improvement Expenditure (CI) **= Property-before-tax Cash Flow (PBTCF)** - Debt Service (DS) **=Equity-before-tax Cash Flow (EBTCF)**	**Effective Gross Income (EGI)** - Operating Expenses (OEs) **= Net Operating Income (NOI)** - Corporate Overhead (G&A Expense) **= EBITDA (**Earnings before Interest, Tax, Depreciation & Amortization**)** - Interest **= Funds from Operation (FFO)** - Adjustment for Straight-line Rents - Amortization of Mortgage Debt - Capital Improvement Expenditure (CI) **= Adjusted Funds from Operation (AFFO)**
Valuation Asset Value = NOI/ Cap Rate	**Valuation** *Share Price* = (AFFO/Share) * (P/AFFO Multiple) Share Price = (NAV/Share) * (Premium to NAV) *Yield Spread* – REIT dividend yield vs 10-year Treasury Yield Yield Spread – REIT dividend yield vs. BBB Corporate Bonds
Net Asset Value = REIT Assets Value (as valued in property market *) – REIT Liabilities** ÷ No. Shares Outstanding * As estimated by REIT analyst, e.g.: “mass appraisal”: • Divide REIT holdings into major market segments (e.g., Offices in Boston, Warehouses in Chicago); • Identify NOI (like EBITDA) associated with each segment; • Estimate current property market prevailing “cap rates” in each segment; • Apply estimated cap rates to estimated NOI to estimate asset value in each segment. • Add and adjust for:(i)Land holdings and construction in progress;(ii)Non-asset based earnings (e.g., prop.mgt fees) using estimated P/E ratio. ** Theoretically should be market value of debt (often book value used in practice).	

Source: David Geltner et al. (2007); Merrill Lynch (June 2, 2008)

[43] “Nuts & Bolts: REIT Primer #3” Page 14, Merrill Lynch, June 2, 2008.

Price/Multiples for Various Income Streams of a Public REIT

In Figure 4.15, I examine AMB's NAV breakdown, as estimated by Citigroup Research (2008). Citigroup broke the private real estate value into 4 components (1). NOI form core portfolios, (2). Private capital income, (3). Merchant building income, and (4). NOI from unconsolidated JV. Citigroup also assigned different capitalization rates for these 4 income streams – 6.5% (15.3x price earnings multiple) for NOI and NOI from unconsolidated JV, 10.0% (10.0x) for private capital income and 25% (4.0x) for merchant building income. These 4 assigned capitalization rates also reflected Citigroup's view toward the risk return profile for these four income sources.

Figure 4.15: AMB Net Asset Value

($ in thousands, except per share data)

Net Operating Income	$319,804
Assumed Capitalization Rate *	**6.50%**
Private Market Value of Consolidated Properties	$4,920,062
Private Capital Income	$35,692
Assumed Capitalization Rate	**10.00%**
Value of Management Income	$356,920
Merchant Building Income	$194,513
Assumed Capitalization Rate	**25.00%**
Value of Merchant Building Income	$778,052
NOI from Unconsolidated JV	$67,952
Assumed Capitalization Rate	**6.50%**
Market Value of Unconsolidated Properties	$1,045,415
Development Pipeline - Costs to date	$1,257,900
Land Held for Future Development	$542,400
Development Projects for Held for Sale	$209,700
Total Cash and Equivalents	$345,700
Accounts Receivable and Other Assets	554,700
Private Market Value of Assets	**$10,010,849**
Other liabilities	-$533,300
AMB's share of total debt	-$3,832,860
Perpetual Preferred Stock	-$312,267
Private Net Market Value of Assets	**$5,332,422**
Diluted Shares and OP Units Outstanding	101,875
Net Asset Value per Share	**$52.34**
Current share price	$57.39
Premium/Discount to NAV	**9.64%**
Implied Cap Rate	6.00%

* "Spot Rate" NAV estimates 6.50% Cap Rate on 1Q08

Source: Citigroup Investment Research on AMB, April 16, 2008.

I will further use the same methodology to discuss the true value of "private capital income" and "merchant development" in Section 6.2 (Shall or Will ProLogis to Turn into a Fund Management Company?).

Moody's Analytical Framework for Property Investment Structures

Moody's (January 2006) provides a similar analytical framework and set the guidelines to evaluate a REIT company, as shown in Figure 4.16.

Moody's defines "Joint Ventures" as project-level joint venture and Moody's views it less risky than real estate fund business. "Real Estate Funds", in Moody's definition, can be either single-partner JV or commingled funds that I have covered throughout the thesis. Moody's assigns higher risk profile in real estate funds due to his concern on "Fund business is new to REITs and have not yet been proven as sustainable businesses". For merchant building gains, Moody's takes "haircut" to reflect volatility of this source of cash flow.

Figure 4.16: Analytical Framework for Property Investment Structures

Merchant Building	• Growth trajectory of revenues as percentage of total revenues; analyze stability • Income from development fees and gains is haircut to reflect volatility of this source of cash flow; over time and with stronger track record, these reductions can be reduced
Real Estate Funds	• Fund business is new to REITs and have not yet been proven as sustainable businesses • As a track record is created, a rising portion of these revenues would count as recurring • Assets on balance sheet are illiquid, not leverageable.
Joint Ventures	• Balance sheet and income statements are analyzed on a *pro rata* consolidated basis • If the JV is strategic to the REIT's overall business, we fully consolidate • Viewed as less risky than fund businesses
Non-domestic Investments	• Subject to a high level of scrutiny, additional worries include skill base of REIT, FX and tax risks, and liquidity

Source: Moody's rating methodology, page 15, January 2006.

In my view, Moody's has truly indicated the volatile business nature of merchant development in this field. The analytical framework for merchant building, provided by Moody', is also helpful to the industry.

Chapter 5 Investors’ Perspective

5.1 Structure Diagram for Public-sponsored Private Capital Fund 5.2 Choice between Public Real Estate vs. Private Real Estate 5.3 Evolving Role of Real Estate Investment Manger

In Chapter 5, I follow the analysis of Chapter 3 (Characterization of Private Capital Funds under Public REITs) and Chapter 4 (Merchant Development under Public REITs) by taking investors’ perspective and exploring how and why these public-sponsored private capital fund to meet the objectives of institutional investors.

In Section 5.1, I create a structure diagram for “ Public-sponsored Private Capital Fund” and discuss the following four topics in order to understand how and why these public-sponsored private capital funds are structured.

1. Pension Funds’ New Allocation to Public REITs’ Private Capital in 2007- 2008 1Q (“Flow Concept”)
2. Pension Funds and REIMs’ Investment Allocation in Public REITs’ Private Capital (“Stock Concept”)
3. Why are REIMs the Preferred Choice for Pension Funds?
4. REIM’s JV Partner Selection – Different from Pension Fund?

In Section 5.2, I further investigate 1) What are the factors determining allocation between public real estate and private real estate, and 2) Why are REITs’ private capital funds may be a wise choice if institutional investors feel that there is a greater value in private real estate than public real estate. I will also discuss the analytical comparison tools for “Public Real Estate vs. Private Real Estate” in Appendix 10.

In Section 5.3, I examine the following topics in order to understand the role of real estate investment manager in the public REITs’ private capital fund business.

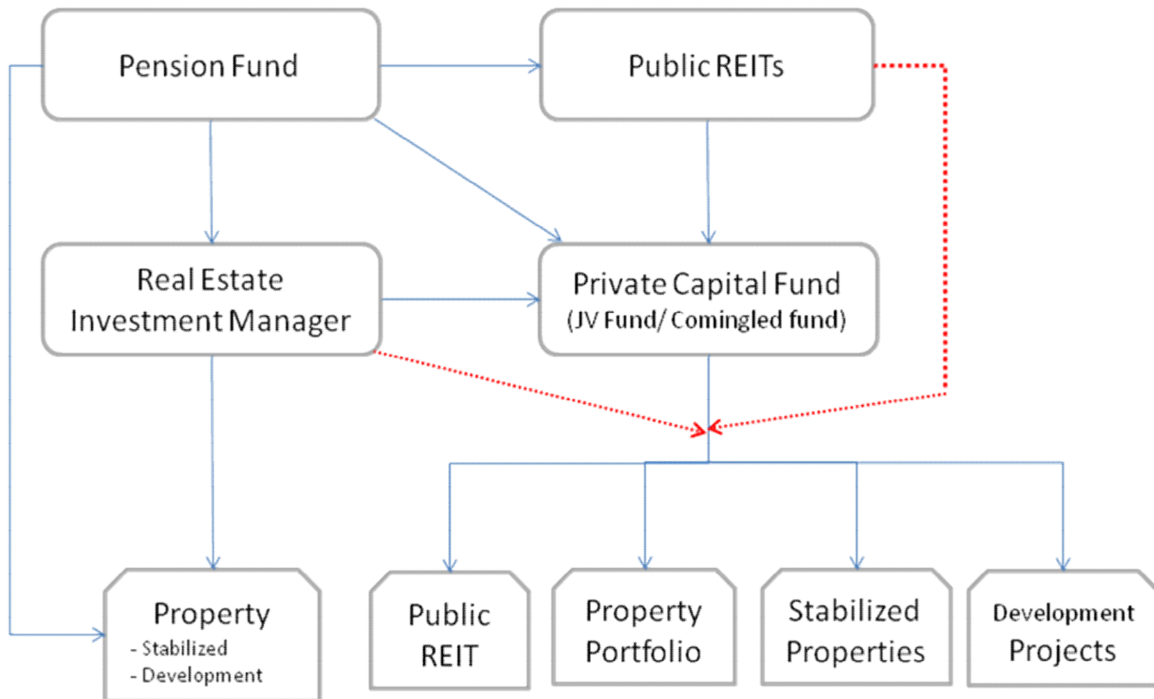
1 Convention Role of REIMs
2. Product Lines of Top REIMs
3. Expanded REIM’s Role
4. Historical REIT Sector M&A Activity
5. Performance of Real Estate Investment Manger
6. Why Public REITs’ Private Capital for Pension Fund?

5.1 Structure Diagram for Public-sponsored Private Capital Fund

In Chapter 3, I have identified major investors in this field (pension funds and REIMs), and explained the deal angel/rational for three participants (public REITs, pension funds, and REIMs) in this field. I have thus created the structure diagram for "public-sponsored private capital fund" in Figure 5.1. In this section, I further investigate the following 4 topics.

1. Pension Funds' New Allocation to REITs' Private Capital in 2007- 2008 1Q
2. Investment Allocation of Pension Funds and REIMs in REITs' Private Capital
3. Are REIMs the Preferred Choice for Pension Funds?
4. REIMs' JV Partner Selection – Different from Pension Funds?

Figure 5.1: Structure Diagram for Public-sponsored Private Capital Fund



Source: the Author

Pension funds may add real estate exposure mostly through four channels: 1). Direct property acquisition, 2). Investment in public REIT shares; 3) Investment with real estate investment managers (either in the real estate funds or via separate accounts); 4). Investment in REIT-sponsored private capital fund.

REIMs may also acquired direct properties themselves or through JV and fund strategies like REITs' private capital funds in "four major types of investment" – public REITs, property portfolio, stabilized properties

and development projects. Some large-sized public REITs, such as such as Simon Property and Vornado Realty, also make these four major types of investment without setting up their own private capital funds. In this Section, in order to make our analysis simplified, I exclude REIMs and public REITs' direct investment in "four major types of investment".

In order to understand the real estate fund allocation for pension funds, I examined a study from Real Estate Alert [44] (2008) and see how much new real estate equity was allocated through "Separate Account/JV Partnership" and "Commingled Fund" during 1Q2007~1Q2008. These two investment vehicles can be managed by either REIMs or public RETs' private capital.

Figure 5.2 shows pension funds' real estate fund investment in 2007-20081Q. Total real estate fund investment by pension funds during the studied period is $36.2 Bn, of which $29.95 Bn (82.7%) went into commingled funds and $6.23 Bn (17.3%) went to separate accounts/JV partnership. The average investment size for separate account/JV partnership is $160.9 Mn, 55% larger than the average of $104.0 Mn for commingled fund. The data suggests pension funds much more prefer commingled funds as their real estate fund investment vehicles.

Figure 5.2: Pension Funds' Real Estate Fund Investment (2007-20081Q)

	# of Investments	Avg Size ($ Mn)	Total Amount	% of Total
Separate Account/ JV Partnership	39	$160.9	$6,277	17.3%
Commingled Fund	288	$104.0	$29,945	**82.7%**
Total Real Estate Fund Investment	327	$110.8	$36,222	100.0%

Source: the Author's calculation based on Real Estate Alert (2008)

Pension Funds' New Allocation to this Field in 2007- 2008 1Q ("Flow Concept")

Only two separate accounts/ JV partnership with public REITs were noted in 1Q 2007 ~ 1Q 2008. CalSTRS made two single-partner JV partnership funds with First Industrial – total $265 Mn (Please refer to Appendix 7). Ohio State Teachers made one $ 100 Mn investment in Regency Retail Partners, managed by Regency Centers. (Please refer to Appendix 8). Surprisingly, among Pension funds' total 1Q07~1Q08 real estate allocation of $36,222 Mn, only $365 Mn (=$265 Mn + $100 Mn from two deals above) or 1.01% was made in REITs' private capital business.

[44] Please refer to Appendix 8 for "2007 New Separate Accounts/ JV Partnership in 2007" and Appendix 9 for "2007 New Commitments to Commingled Fund".

Pension Funds and REIMs' Investment Allocation in this Field ("Stock Concept")

How much real estate was allocated from pension funds and REIMs to the studied 7 REITs' private capital considered in this thesis? I am unable to show such statistics because there is overlapping between pension funds' real estate allocation and REIM's total real estate private equity fund raised. REIMs' actually has raised mostly of their real estate private equity funds from pension funds. In Figure 5.3, I estimate that total equity investment from pension funds and from REIMs in this field is at 14.0% and 11.1% respectively. The calculation is derived from through following steps (shown in Figure 5.3):

1). Equity investment from pension funds and REIMs in public REITs' Private Capital: $22.03 Bn
   $22.03 Bn = Total Gross Fund Asset $55.1 Bn* 50% assumed Debt Asset Ratio * 80% assumed Equity Holding from Pension Funds and REIMs
2). Total Pension Funds' Real Estate Allocation[45]: $ 157.0 Bn
3). Real Estate Private Equity Fund Raised 1998 - 2007 1H[46]: $ 197.7 Bn (E&Y Statistics[47])
4). % of Pension Funds' Real Estate Allocation in Public REITs' Private Capital: 14.0%
   (=Total Pension Funds' Real Estate Allocation/ Equity Investment in Public REITs' Private Capital)
5). % of REIMs' Investment in Public REITs' Private Capital: 11.1%
   (=Real Estate Private Equity Fund Raised 1998 - 2007 1H/ Equity Investment in Public REITs' Private Capital)

Figure 5.3: Pension Funds and REIMs' Investment Allocation in Public REITs' Private Capital

Item	Remark	Amount ($ Mn)
Total Gross Fund Asset of 7 REITs' Private Capital Funds, 07YE (1)	(A)	55,077
50% Equity Assumed (50% Debt Asset Ratio)	(B)= A*50%	27,539
80% Equity Holding from Pension Funds and REIMs	(C)= B*80%	**22,031**
Total Pension Fund' Private RE Equity Allocation at 2007 YE(2)	(D)	157,008
Real Estate Private Equity Fund Raised 1998 - 2007 1H (3)	(E)	197,680
% of Pension Funds' Real Estate Allocation in Public REITs' Private Capital	(F)=C/D	**14.0%**
% of REIMs Investment in Public REITs' Private Capital	(G)=C/E	**11.1%**

(1). Refer to Figure 3.1 (Private Capital Business Strategy Summary for 7 Studied REITs)
(2). Derived from assets holdings of 2,814 plan sponsor, total assets $6,337.6 Bn, 2.5% in RE equity, PREA (2007).
(3). "Market outlook: Trends in the RE private equity industry", page 1, Ernst & Young (2007).
Source: the Author's Calculation based on PREA (2007) and Ernst & Young (2007)

[45] $157.0 Bn figure from PREA (2007) is quite close to $144.3Bn real estate holdings from top 50 public pension funds at 2007 year-end at Figure 5.5 (sourced from Real Estate Alert (2008).

[46] Real estate private equity funds raised during 1998-20071H is an "accumulated flow concept", equivalent to a "stock concept" used to describe how much real estate private equity funds' capital supply in the market on June 30, 2007 (a particular day), assuming these funds all have 10-year fund life.

[47] The author understands there is overlapping between real estate private equity funds raised and pension funds' real estate allocation. Because pension funds also make investment in these real estate private equity funds raised during E&Y studied period. The purpose of this calculation is to show the magnitude difference between pension funds' real estate allocation and real estate private equity funds raised.

In summary,

1).**Flow Concept:** Pension fund's new real estate fund allocation to the studied 7 REITs' private capital in 2007- 2008 1Q was only at 1.0% of pension funds' total real estate fund investment of $36.2 Bn; the remaining 99% went real estate investment managers.

2).**Stock Concept:** The estimated allocation from pension fund and REIMs to the 7 studied leading REITs' private capital business is at 11.1-14.0% range from either pension funds or REIMs' real estate statistics.

Why REIMs is the Preferred Choice for Pension Funds?

Why pension funds make so much less JV/Fund investment with public REITs than REIMs? I compare public REITs' private capital and REIMs in Figure 5.4 along a number of dimensions. The important differences are: 1) REIMs have more generalists and specialists, 2) REIMs have more product flexibility, 3) Very few private capital fund products available from leading public REITs.

Figure 5.4: Pension Funds' JV/Fund Investment with Public REITs vs. with REIMs

Characteristic	Public REITs Private Capital	RE Investment Manager
Product Lines	Mostly Core, VA; few Opportunistic fund	Fund products (Core, VA, and Opportunistic fund) and separate accounts
Fund Raising Cyclicality	Less, but in most case restricted to its existing portfolio size or development pipeline	Highly cyclical
Investment Advisory	Limited Role	Can do macro-level advisory or project level executing
Product Development	Can do single partner JV and commingled fund	More varieties
Organization Limitation	Constrained by REIT Ruling and Code	Much less
Fee Charge	Less	More expensive
# of Good Investment Managers	Much less. Only a handle of leading REITs in each sector	Abundant in both generalist and specialist REIMs
Co-investing Opportunity and Side Fund	Not seen	Could be structured
Buy-sell Provision	Very commonly used in single-partner JV. REIT has average 20% equity in JV/fund.	Not commonly used. REIM usually has equity stake less than 5% in the managed fund

Source: the Author

In REIMs, there are many good generalists and specialists (please refer to Section 5.3 Evolving Role of Real Estate Investment Mangers). However, in the public REIT arena, some sector leaders have very limited JV/Fund management programs, such as Simon Property (retail), Avalon Bay Communities (residential),

Boston Properties (office), Vornado Realty[48] (diversified), and Public Storage (self-storage). The industrial REIT sector is the only exception to this phenomenon. The top three industrial REITs (ProLogis, AMB and First Industrial) all have significant activities for JV/Fund management programs. Therefore, I surmise that that pension funds may not feel comfortable investing with a public REIT which has a limited track record in managing private capital business, and maintains FFO growth in the parent REIT.

REIMs have more product flexibility than REITs' private capital. Pension funds are not commonly involved in single-partner JV deals with public REITs until they have made substantial direct real estate investment and accumulated relatively larger percentage of real estate allocation. A series of single-partner JV fund between CalSTRS and First Industrial is one example that pension funds must have substantial real estate allocation before they move to next level single-partner JV funds with public REITs. In Figure 5.5, I observed CalSTRS has $18.35 Bn (=$7.12 Bn + $11.23 Bn) real estate holding plus commitment at 2007YE, equivalent to 10.6% of its $173.7 Bn total assets.

For Figure 5.5, I take an excerpt of Real Estate Alerts' publication on March 31, 2008.[49] Those real estate figures exclude REIT shares, timber and agriculture. Calpers (California Public Employees' Retirement System), New York State Teachers, CalSTRS, New York Common Fund, and Ohio Teachers are the major fund investors I have identified in this field (as discussed in Chapter 3). These pension funds all have substantial real estate direct ownership and commingled fund investment experience either with REIMs or public REITs.

Figure 5.5: Top 50 Public Pension Funds Based on Real Estate Holdings (As of March 31, 2008)

Rank	Pension Name	Total Assets ($ Mn)	RE* Holding at 07YE ($ Mn)	Net Chg in Holding in 07' ($ Mn)	Unfunded Commit-ment at 07YE ($ Mn)	RE Holdings as % of Total Assets at 07YE	Holding plus Commit- ment as % of Total Assets at 07YE	Direct Owner-ship	Com-mingled Funds
1	**Calpers**	$263,000	$17,978	$2,050	$22,000	**6.8**	**15.2**	v	v
2	**New York State Teachers**	100,000	12,981	6,191	2,545	13.0	15.5	v	v
3	Florida State Board	132,400	9,232	3,934	758	7.0	7.5	v	v
4	Washington State Investment Board	84,799	7,751	2,006	6,600	9.1	16.9	v	
5	**California State Teachers (CalSTRS)**	173,695	**7,117**	532	**11,229**	**4.1**	**10.6**	v	v
6	**New York Common Fund**	154,575	6,752	2,067	2,295	4.4	5.9	v	v
7	**Ohio State Teachers**	77,265	5,817	1,412	850	7.5	8.6	v	v
8	Michigan Retirement	61,762	5,657	1,457	1,100	9.2	10.9	v	v
9	Pennsylvania Public School Employees	67,400	4,800	1,539	3,200	7.1	11.9	v	v
10	Illinois Teachers	41,722	4,549	811	1,400	10.9	14.3	v	v
11	Los Angeles County Employees	41,113	4,049	455	0	9.8	9.8	v	v

[48] Vornado Realty, in my view, also sits on the other spectrum of public REITs. Vornado basically has evolved into a REIT investment holding company, and has various project-levels JVs (rather than fund JV programs) and investment subsidiaries.

[49] Available at http://www.realert.com/Public/MarketPlace/Ranking/index.cfm?files=disp&article_id=1044685626. Accessed on July 12, 2008.

12	Massachusetts Pension Reserves	52,700	3,790	529	274	7.2	7.7	v	v
13	Oregon Public Employees	64,870	3,750	813	2,553	5.8	9.7	v	v
14	Wisconsin Investment	87,803	3,500	489	2,000	4.0	6.3	v	v
15	Alaska Permanent Fund	39,841	3,249	429	0	8.2	8.2	v	
16	Ohio Public Employees	77,600	3,217	-457	924	4.1	5.3	v	v
17	Colorado Public Employees	41,000	3,000	532	1,000	7.3	9.8	v	v
18	Virginia Retirement	58,700	2,700	1,036	971	4.6	6.3	v	v
19	Pennsylvania State Employees	35,800	2,610	822	591	7.3	8.9	v	v
20	Iowa Public Employees	22,940	2,087	380	0	9.1	9.1	v	v
21	Texas Teachers	113,489	1,909	1,555	3,365	1.7	4.6	v	v
22	New York City Retirement	111,989	1,800	1,800	2,156	1.6	3.5	v	v
23	Alaska Public Employees and Teachers	16,400	1,700	199	4	10.4	10.4	v	v
24	San Francisco Employees	16,952	1,699	382	0	10.0	10.0	v	v
25	New Jersey State Investment	78,100	1,520	1,239	1,725	1.9	4.2	v	v
26	Alabama Teachers	21,250	1,510	303	0	7.1	7.1	v	
27	Illinois State Board	12,500	1,263	-57	390	10.1	13.2	v	v
28	Maryland State Retirement	39,535	1,180	280	330	3.0	3.8	v	v
29	Nevada Public Employees	23,292	1,155	1	0	5.0	5.0	v	
30	Louisiana Teachers	16,045	1,087	107	0	6.8	6.8	v	v
31	Tennessee Consolidated Retirement	32,390	1,083	146	33	3.3	3.4	v	
32	Missouri Public School Employees	31,940	1,066	265	1,065	3.3	6.7		v
33	Ohio School Employees	11,723	1,060	189	355	9.0	12.1	v	v
34	Minnesota State Board	51,000	1,002	216	192	2.0	2.3		v
35	Ohio Police & Fire	12,795	971	359	12	7.6	7.7	v	v
36	Los Angeles Fire & Police	14,760	920	211	600	6.2	10.3	v	v
36	Hawaii Employees	11,631	877	-80	124	7.5	8.6	v	
38	Chicago Public School Teachers	12,437	871	104	100	7.0	7.8		v
39	Sacramento County Employees	6,339	832	5	55	13.1	14.0	v	v
39	Alabama Employees	10,110	735	151	0	7.3	7.3	v	
41	San Bernardino County Employees	6,351	694	89	218	10.9	14.4	v	v
42	Illinois Municipal	24,200	645	83	145	2.7	3.3	v	v
43	Kansas Public Employees	13,466	618	57	114	4.6	5.4	v	v
44	Arkansas Teachers	10,008	593	159	170	5.9	7.6	v	v
45	Los Angeles City Employees	11,435	538	105	412	4.7	8.3		v
45	Arizona State Retirement	27,000	520	464	900	1.9	5.3		v
47	Orange County Employees	7,940	500	-39	131	6.3	7.9	v	v
48	Mississippi Public Employees	21,540	484	-40	643	2.2	5.2	v	v
49	New Mexico Permanent Funds	16,326	445	231	110	2.7	3.4	v	v
50	San Diego County Employees	8,926	424	111	212	4.8	7.1		v
	TOTALS	**2,470,854**	144,287	**35,622**	**73,851**	**6.3**	**8.3**		

Real estate figures exclude REIT shares, timber and agriculture. Source: Real Estate Alert, March 31, 2008

In addition, while pension fund are selecting REIT fund partners, they look into not only the fund product itself, but also the parents' balance sheet strength and any other prior engagement with other pension funds or REIMs as well. In my observation, taking CalSTRS vs. First Industrial for example, CalSTRS must have considered the factor First Industrial has no prior-engagement with other institutional investors. Or say, the JV relationship between CalSTRS and First Industrial can be further strengthened along the timeline.

In industrial REIT area, there were two close relationships observed between "GIC Real Estate and AMB in US" or "GIC Real Estate and ProLogis in international markets". First Industrial is the third largest industrial REIT in terms of development pipeline and market capitalization. It seems that CalSTRS may have paired with First Industrial because there were no other strong enough industrial REITs left for CalSTRS' selection.

Buy-sell Provision – More Consideration Required for REITs' Private Capital

In Figure 5.4, I also mentioned that buy-sell provision in public REITs' private capital fund may also affect pension funds' investment decision. Pension funds also need to consider the implication of the buy-sell provision when investing with public REITs' private capital funds.

In terms of buy-sell provision, a typical REIT's take-out fund has been seen to be structured as either 7-10 years life or perpetual. Sometimes, a buy-sell provision, which provides that either pary can sell its respecitve interest by offering its share to partners; and if no price can be agreed upon, either can sell to a third party. In som JV/Funds, there are speficied holding horizons and there is a predetermined sort of exit strategy which is either they will go to the market, or one of the JV partners has the opportuntiy to buy at an appraised value. Both these two types of buy-sell provisions are commnly seen in REITs' single-partner JV.

However, the buy-sell provision mentioned above is not commonly seen in the fund produt of REIMs, as REIMs typicllay own less than 5% of equity stake in funds. It will be difficult for REIMs to exercise any meaningful buy-sell exit. The business objective for REIM is to earn fee income and performance fees, which is no different from REIT's private capital. REITs' private capital, however, has other key busines objective that is to support the parent REITs' contiune growth of FFO. Therefore, pension funds need to consider this factor when they are investing with REITs' private capital funds.

REIMs JV Partner Selection – Different from Pension Funds?

Are there any difference between pension funds and REIMs with respect to partner selection of public REITs? In fact, I find no differences. I also examined the case of GE Real Estate. GE Real Estate reveals how it works for joint venture partner selection in a practical journal[50]. GE says it has a "tried-and-true" method for putting the deal together.

[50] Abrams, Sandra Lea., "Joint Ventures on Rise in Real Estate World", Investment Dealers' Digest, Vol. 70 Issue 24, p33-34, June 14, 2004.

Figure 5.6: JV Parter Selection Steps – GE Real Estate

First, it identifies a best-in-class operator, one that knows its ways around the industry and has solid track record.

Second, GE Real Estate volunteers to provide the majority of the capital, although the partner, be a real estate company or REIT, will still put a significant amount of the money as well.

Third, the partnership may make the major decision on what to buy together, but the day-to-day operating decisions are left to GE's joint venture partner.

Source: Investment Dealers' Digest (June 14, 2004), page 33-34.

According to GE Real Estate, GE can make investment decisions based on REIT partner recommendation for which property to buy or to hold at which price.

In statitstics for "Private Capital Summary for 7 Studied Public REITs " presented in Appendix 7, GE has made two joint ventures with Kimco and AMB respectively. Figure 5.7 suggests that GE did indeed pick up the best-of-breed REIT partners (Kimco in retail sector and AMB in industrial sector), provided the majority of capital (80%-85%) and left Kimco/AMB responsible the day-to-day operation.

Figure 5.7: GE Real Estate Investment Fund Summary with Public REITs

Co-investment Venture	Since	Fund Style Strategy	REIT Partner	Target	GE Equity ownership	Total Equity in JV Fund ($ Mn)	Gross Investment in RE ($ Mn)	Leverage Ratio
Kimco Real Estate Portfolio (KROP)	2002	VA	Kimco	To acquire established retail properties in the U.S. *	80.72%	38	151	74.9%
AMB DFS Fund I, LLC	2006	OPP	AMB	To build and sell industrial properties in US	85.00%	416	144	na.
Source: Kimco/ AMB 4Q 2007 Supplement Financials						454	295	

* During Aug 2006, Kimco and GE agreed to market for sale the property portfolio.

The most siginifcant difference that I can discern between REIMs and pension funds in selecting REIT private capital manager is the cost mark-up[51] from REIMs (if REIMs are managing pension funds' money). That is also part of the reason more JV/Fund partnership between REIMs and public REITs are found on value-added funds and opportunitistic fund.

[51] Please refer to "Cost mark-up analysis of REIMs" in Section 3.3.

5.2 Choice between Public Real Estate vs. Private Real Estate

I have identified major investors for REIT's private capital funds. In terms of asset allocation for institutional investors, I further investigate 1) What are the factors determining allocation between public real estate and private real estate, and 2) Why a REITs' private capital fund may be a wise choice if institutional investors feel that there is a greater value in private real estate than public real estate.

For questions 1, I examine David Geltner et al. (2007) findings on choice between public real estate and private real estate. For question 2, I analyze the options available for institutional investors while they perceive higher private real estate value.

In addition, I provide the analytical tools and key parameters used in deal making in Appendix 10.

Choice between Public REIT and Private Real Estate

David Geltner et al. (2007) made three findings[52] about institutional investors' allocation between public REIT and private real estate investment.

1. REITs provide more liquidity than private market investment for average investors, but they also provide less diversification of a wealth portfolio that is dominated by stocks and bonds. This is because REIT returns tend of be more highly positively related with stock and bond returns that are private property market returns
2. REITs are the preferred route for small, non-specialized investors who want some real estate in their portfolio
3. Larger, more sophisticated investors will typically have the ability, and gain some benefit, from using both REIT and private market investment vehicles simultaneously in various mixes depending on their objectives and where they perceive the market to be in terms of the real estate asset market cycle.

Strategic Options for Institutional Investors

If institutional investors perceive higher value in private real estate in next 3 years, what are the strategic options for them? I observed 5 possible strategic options listed in Figure 5.8 with the "action" and "comment" for each option.

[52] Chapter 23, page 620, David Geltner et al. (2007).

Figure 5.8: Strategic Options for Institutional Investors while Perceiving Higher Value in Private RE

Option	Action	Comment
Direct Real Estate Investment	Need to decide a real estate sector first	Require time to acquire direct real estate and build up in-house staff for acquisition and asset management
Investing in Equity REIT Shares	Buy shares from the open stock exchange	Public REIT in most of time are not proxy for private real estate exposure
Buyout a Equity REIT	Acquire a public REIT, break up into several portfolios and decide which to sell first	Depending on the financial strength of institutional investors and also the capital market financing.
Investing with REIM's Fund	To seek new fund available or buy from secondary real estate limited partnership market	New fund might not be readily available in the market; New fund requires time to build-up portfolio
Investing with a public REIT's private capital	Either structure single partner JV or invest in any new commingled fund. Fund aims at taking out existing portfolio or development pipeline	Time-effectiveness, target can be pre-identified. No need to add in-house staff for real estate acquisition and asset management

Source: the Author

Each option listed in Figure 5.8 has its own merits and costs (or drawbacks) associated with the option taken.

In my observation, investing with a REIT's private capital fund for institutional investors may provide the merits of time effectiveness for capital deployment because of the pre-identified acquisition targets.

Targets could be the take-out of existing stabilized portfolio and development pipeline after stabilization, or other strategic initiatives that public REITs have identified, such as acquiring a property portfolio from other REITs or real estate companies, or acquiring other REITs. Institutional investors, therefore, typically do not have to add in-house real estate staff by investing in this field. The asset management work, in most cases, is provided by pubic REITs at cost or at cost plus some mark-up.

Which Private Real Estate Sector to Choose?

Which sector should institutional investors choose in considering adding private real estate exposure? I address this question by showing the correlation matrix among various real estate property types. Figure 5.9[53] shows correlation matrix among 5 property types by using NCREIF's databank.

Figure 5.9: Correlation among NCREIF Property Types

Property Type	Apartment	Hotel	Industrial	Office	Retail
Apartment	**1.00**	0.45	0.79	0.79	0.42
Hotel	0.45	**1.00**	0.52	0.57	-0.01
Industrial	0.79	0.52	**1.00**	0.95	0.56
Office	0.79	0.57	0.95	**1.00**	0.50
Retail	0.42	-0.01	0.56	0.50	**1.00**

Source: Mark Anson et al. (2005)

[53] Anson, Mark J.P., Susan Hudson-Wilson, Frank J. Fabozzi; "Privately Traded Real Estate Equity," Journal of Portfolio Management, Real Estate Special Issue, Fall 2005.

Mark Anson et al. (2005) suggests that even within private real estate, property-type strategy selection is also a key factor when constructing a private real estate portfolio.

In most cases, if institutional investors (including pension funds and REIMs) do not have sector expertise or investment experience in certain direct real estate sectors, partnership with leading REITs in they preferred sectors may be a good strategic option.

Several analytical tools will be provided in Appendix 10 to show the portfolio construction logic that is widely used among institutional investors. The tools can also be used to make comparison between public real estate and private real estate.

1. Historical Annual Return Comparison for Equity Products
2. Comparative Total Return Investment Correlation (1997-2007)
3. Six Equity Return Series (1998-2007)
4. NAREIT Equity Return and NCREIF's NPI Index (1978-2007)
5. Private RE Cap Rate and Equity REIT Dividend Yield vs. 10-yr Treasury (Q93 ~ 4Q07)
6. Average Yield Pick-up against 10-yr Treasury
7. NCREIF Return Quarterly Breakdown (1Q97-1Q08)
8. NCREIF Current Value Cap Rates by Property Type (4Q93-1Q08)
9. Yield Pick-up against 10-yr Treasury for Four Property Types (4Q93-1Q08)
10. Index of Commercial Property Value: Private vs. REITs (2002 = 1.00)
11. Market Cap Weighted Price/NAVs for Selected Real Estate Sectors
12. Price/NAVs for Total REIT Average (1996-2008)

5.3 Evolving Role of Real Estate Investment Manger

First, I investigate the evolution of the REIMs (by size) and their responsibilities and functions. I further examine the fund style strategy for top 50 REIMs. I found that even within top 50 lists there are some specialists who only focus one or two product lines for clients.

Second, I examine some opportunity funds' target (managed by REIMs) has been further extended into acquisition of public REITs and real estate operating companies. Investment in REITs' private capital funds for some REIMs is only one type of their investment choices.

Third, I add the 2007 market trend in this section by showing some real estate M&A statistics, as I plan to explore how REIM's capital market capabilities can afford them the ability to take the entire public REITs private, particularly in year 2007. REIMs' real estate M&A deal size is substantially larger (went well above $10 Bn in 2007) than the deal done with public REIT's private capital funds[54].

I conclude this section by examining the performance of REIMs. I find out that bottom 20% fund return could easily go below zero for value-added and opportunistic funds after adding the "cost-to-invest".

This marks a substantial difference for public REITs' commingled value-added funds – most of these funds have a good predictable return with low volatility, which I have demonstrated in Section 3.2 ("Core-Fund" – Is It Really Core? "Value-added Fund" – Is It Really Value-added?).

[54] The largest being Kimco's private capital acquisition on public REITs was at $1.0-$4.0 Bn range in 2006.

Conventional Role of REIMs

David Geltner et al.[55] (2007) listed the responsibility and functions of real estate investment managers. Professional real estate investment management may involve a number of tasks and function, as summarized in Figure 5.10.

Figure 5.10: Responsibilities and Functions of Real Estate Investment Manager

Function	Responsibilities
Investment advisory services	- Advice regarding macro-level real estate investment decisions - How should client invest in real estate: Strategy (allocation, styles), Tactics (timing, reallocation, buy/sell), management (vehicles).
Asset selection and transaction execution	- Micro-level function to Search, Find, Diligence, Negotiate/Structure, Close on behalf of the clients. - May pursue development project by joint venture with a REIT or private development with the necessary local expertise and development experience
Investment product development	- To offer somewhat standardized "products" or "vehicles" for investors - Enable underlying physical assets to serve the variety of investment needs and objectives of a heterogeneous population of investors
Asset management	- Asset Management: involves the oversight of an entire portfolio of properties; mostly carried out "in-house". - Property Management: operational management of physical real estate; often contracted out to specialized property management firms.
Support functions - Communications and Research	- Gather, analyze information, support investment decision making, firm marketing, client communication. - Larger investment management firms may have research department, headed by "quant" type Ph.D, sits as an ex officio voting member on the firm's investment committee.

Source: David Geltner et al. (2007), Appendix for Ch 26, " The Real Estate Investment Management Institutional Landscape"

David Geltner et al. (2007) also states "not all investment firms undertake to provide or offer all of the products or services described here. As a general rule, at least two or three of the previously described products and services are bundled."

If for separate account clients, REIMs typically provides investment advisory services before the next level of asset selection and transaction execution. In that case, research support function (led mostly by Ph.D in leading REIMs, such as ING Clarion's Dr. David Lynn and Prudential Real Estate Investors' Dr. Youguo Liang) may jointly provide advisory services for strategy allocation first.

Product Lines of Top REIMs

Figure 5.11 is the ranking of top REIMs, ranked by tax-exempt real estate assets under management by Institutional Real Estate Letter, in June 2008. Each manager's investment strategy is also listed. Top firms

[55] Referenced from Appendix 26, "The Real Estate Investment Management Institutional Landscape".

may cover all three strategies – core, value-added and opportunistic funds. There are also some specialty REIMs. Presima, for example only invests in global real estate securities. Liquidity Realty Partners, focus on private real estate secondary investing. Some REIMs also mange product line of public REIT securities, such as Morgan Stanley, LaSalle Investment Management and Citi Property Investors.

Figure 5.11: Top Real Estate Investment Managers, Ranked by Tax-exempt RE AuM

Rank	Real Estate Investment Manager	Fund Style Strategies			Tax-exempt RE AuM ($ Mn)	Total RE AuM ($ Mn)
		Core	VA	Opp		
1	TIAA-CREF	X	X	X	75,100	75,900
2	Morgan Stanley [(1)]	X		X	53,669	94,420
3	JP Morgan Asset Mgt - Real Estate	X	X	X	43,890	56,216
4	LaSalle Investment Management	X	X	X	38,915	50,454
5	UBS Global Real Estate	X	X	X	34,682	47,431
6	BlackRock	X	X	X	30,862	30,862
7	RREEF America	X	X	X	39,750	39,940
8	Prudential Real Estate Investors	X	X	X	29,648	42,525
9	CB Richard Ellis Investors	X	X	X	29,154	37,845
10	Principal Real Estate Investors	X	X	X	28,934	44,770
11	ING Clarion	X	X	X	23,293	25,722
12	INVESCO Real Estate	X	X	X	22,118	32,437
13	AEW Capital Management	X	X	X	16,517	47,400
14	Macfarlane Partners		X	X	16,490	20,800
15	Tishman Speyer	X	X	X	16,100	60,000
16	Heitman	X	X		13,563	20,701
17	Rockpoint Group		X	X	13,231	13,231
18	Apollo Real Estate Investors		X	X	13,100	18,100
19	Colony Capital		X	X	11,665	28,523
20	Starwood Capital Group			X	11,146	13,984
21	GE Asset Management	X	X	X	11,000	11,000
22	Westbrook Partners			X	10,404	10,951
23	Kennedy Associates RE Counsel	X	X		9,753	9,753
24	Brookfield Asset Management	X	X	X	9,420	37,343
25	DRA Advisors		X		8,191	9,304
26	JER Partners			X	7,011	11,160
27	Rockwood Capital	X	X		4,969	6,167
28	American Realty Advisors	X	X		4,633	4,635
29	Capri Capital Partners	X	X	X	4,603	4,603
30	URDANG	X	X	X	5,000	5,000
31	AMB Capital Partners		X		4,500	7,131
32	Sentinel Real Estate Corp.	X	X		4,220	5,400
33	AFL-CLO Building Investment Trust	X			4,200	4,014
34	Fidelity Investments		X		4,014	4,000
35	BPG Properties Ltd		X		4,000	6,000
36	The Campbell Group	X	X	X	4,000	4,300
37	Cornerstone Real Estate Advisors	X	X	X	3,792	9,601
38	The Union Labor Life Insurance Co.	X			3,387	3,387
39	L&B Realty Advisors	X	X	X	3,200	3,700
40	KBS Realty Advisors	X	X	X	3,052	4,619
41	The Tuckerman Group	X	X	X	2,838	7,546
42	Transwestern Investment Co.		X		2,800	5,100
43	Henderson Global Investors	X	X		2,457	2,459
44	Washington Capital Management	X			1,860	1,860
45	Sarofim Realty Advisors	X	X		1,718	1,718
46	McMorgan & Co.	X	X		1,657	1,657
47	Intercontinental Real Estate Corp.	X	X		1,640	1,940
48	Hearthstone		X	X	1,600	1,600
49	Presima [(2)]				1,600	1,753
50	Lowe Enterprises Investors	X	X	X	1,577	4,196

51	Capmark Investments		X	X	1,517	10,322
52	Waterton Associates	X	X	X	1,510	1,951
53	Citi Property Investors	X	X	X	1,500	13,500
54	Forum Partners			X	1,407	2,382
55	Liquidity Realty Partners [(3)]	X	X	X	1,400	1,500
56	GEM Realty Capital		X	X	1,300	2,600
57	Timbervest		X	X	1,250	1,400
58	BayNorth Capital		X	X	1,200	1,200
59	Hart Realty Advisors	X	X	X	1,008	1,008

1). RE AuM represents gross fair market value of real estate asset managed by Morgan Stanley on behalf of the firm and its clients, presented at direct ownership interest. Excludes real estate-related public equity securities and mutual funds

2). Presima invests in global real estate securities

3). Liquidity Realty is a secondary buyer of real estate fund and partnership interests

Source: Page 43, 44, Institutional Real Estate Letter, June 2008

In terms of private real estate investment product types (in Figure 5.12), most REIMs manage clients' money in closed-end funds, discretionary separate accounts and non-discretionary accounts.

Figure 5.12: Private Real Estate Investment Products and Attributes

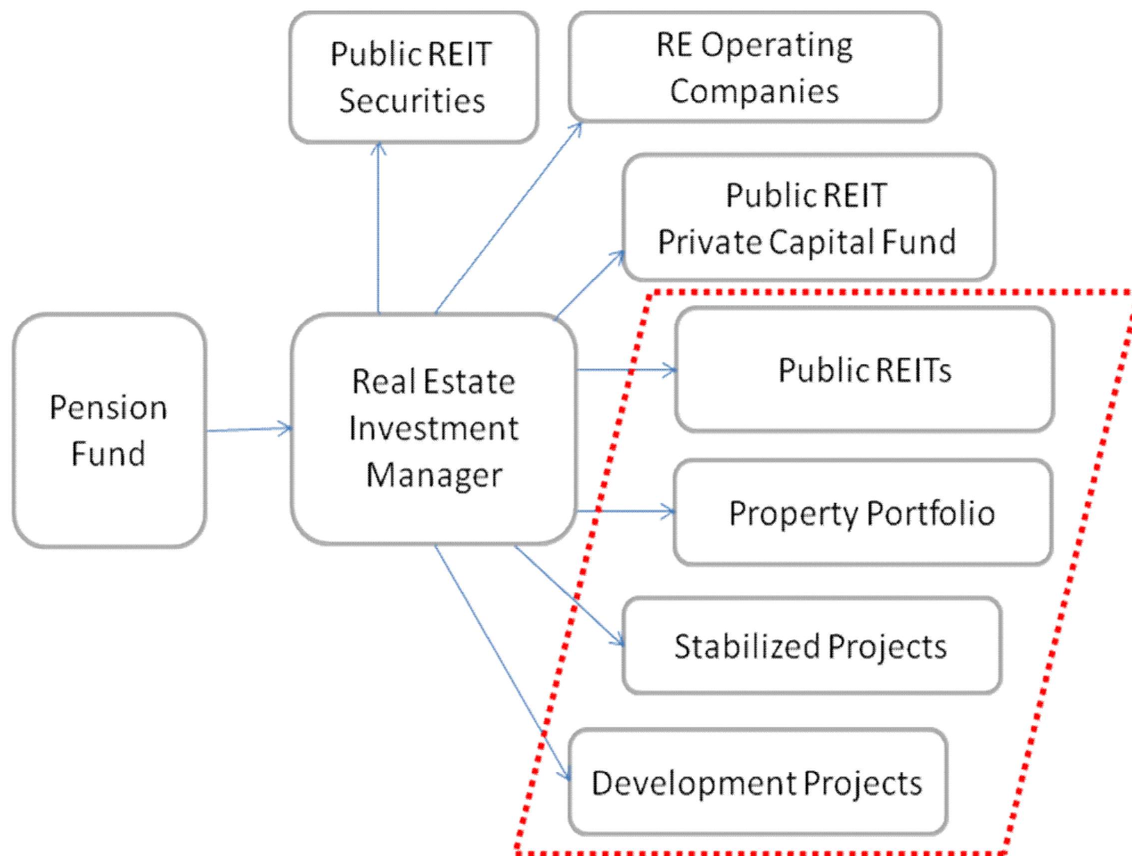
Product Types	Attributes
Open-End Co-mingled Funds or Unit Trusts (PUTs)	- On-going portfolio of properties (no finite life) - Investors can buy in (cash out) at regular frequent intervals (monthly, quarterly). - Unit value is based on NAV (appraisal-based) of fund, which typically includes some small non-real-estate holdings (primarily cash).
Closed-End funds or Real Estate Limited Partnership ("RELP")	- Similar to the open-end product; only the investors cannot cash in and out at will. - The fund is closed to new investors once it is capitalized, and it faces a finite lifetime at which point it will be liquidated. - "RELPs" marketed to individuals in 1970s and 1980s for tax shelter purpose.
Private REITs	-a structure that facilitated co-investment and active management by the investment manager - Facilitates ownership transfer, potential IPO ("incubator REIT") - at least 100 shareholders and no five or fewer shareholders can own over 50% outstanding shares.
Discretionary Separate Accounts	- Investor hires investment manager to buy and manage properties on investor's behalf, with the manager having the discretion as to which properties to buy and sell. - Each separate account is managed on behalf of a single investor, allowing a more "custom-tailored" service for larger investors. - For larger investors.
Non-discretionary Separate Accounts	- Same as discretionary separate accounts, only the manager cannot make final property-level purchase and sale decisions without approval by the client. - Even larger investors, requires some in-house real estate expertise.

Source: David Geltner et al. (2007), Appendix for Ch 26, " The Real Estate Investment Management Institutional Landscape"

Expanded REIM's Role

In the extreme case of some opportunities funds (managed by REIMs), I observe the investment products can be further expanded into Figure 5.13.

Figure 5.13: Expanded REIM's Role



* Dotted red box refers to the "four types of investment" by public REIT private capital fund in Section 5.1 (Structure Diagram for Public-Sponsored Private Capital Fund)

Source: the Author

REIMs can acquire public REITs, real estate operating companies and other big property portfolios, as demonstrated by the major real estate M&A activities (including some hotel operating companies) in Figure 5.14. Large REIMs, such as Blackstone Real Estate Group, Morgan Staley Real Estate, The Carlyle Group and Apollo Investment, are very active in the real estate M&A arena. REIMs acquired public REITs either by themselves or by joining forces with leading REITs.

Figure 5.14: Real Estate Mergers and Acquisitions in 2007

Acquired Entity	Buyer	Price ($ Mn)
Equity Office Properties	Blackstone Group	39,900
Hilton Hotels	Blackstone Group	26,200
Archstone-Smith	Tishman Speyer, Lehman Brothers	22,200
Extended Stay Hotels (Blackstone)	Lightstone Group	8,000
Mills Corp.	Simon Property, Farallon Capital	7,900
CNL Hotels & Resorts	Morgan Stanley Real Estate	6,600
Crescent Real Estate Equities	Morgan Stanley Real Estate	6,500
Manor Care	Carlyle Group	6,300
Inland Retail Real Estate	Developers Diversified Realty	6,200
New Plan Excel Realty	Centro Properties (Australia REIT)	6,200
Reckson Associates Realty	SL Green Realty	6,000
Slough Estates USA	Health Care Property Investors	2,900
Equity Inns	Whitehall Street Real Estate Fund	2,200
Highland Hospitality	JER Partners	2,000
Sunrise Senior Living	Ventas	1,960
TravelCenters of America	Hospitality Properties	1,900
Affordable Residential Communities	Farallon, Helix Funds, GEM Realty	1,794
Genesis Healthcare	Formation Capital, JER Partners	1,770
Innkeepers USA	Apollo Investment	1,500
IPC US REIT	Behringer Harvard REIT 1	1,400
Red Roof Inns (Accor)	Citi, Westbridge Hospitality	1,320
Apple Hospitality Two	ING Clarion	890
Republic Property	Liberty Property	850
Winston Hotels	Inland American Real Estate	850
BNP Residential Properties	Babcock & Brown	766
Apple Hospitality Five	Inland American Real Estate	709
Eagle Hospitality	Apollo, Aimbridge, JF Capital	680
America First Apartment Investors	Sentinel Real Estate	532
Columbia Equity	J.P. Morgan Asset Management	515
Centracore Properties	GEO Group	428
Tendercare	Extendicare	232
Government Properties	Record Realty	223
Source: Real Estate Alert (2008)		**167,419**

Figure 5.15 provides the largest consolidation plays among the four REIT sectors in the history of public REITs. I have earlier discussed this topic in Chapter 2 and observed that these four taken-private REITs coincidently do not have a significant private capital strategy along with their REITs' core portfolios.

Figure 5.15: Major Real Estate M&A Transactions in 2007

RE Sector	Acquiring Firm(s)	Business Nature	NYSE Ticker	Firm Acquired (Sector Ranking)	Business Nature	NYSE Ticker	Acquisition Cost ($ Mn)	Closing Date
Office	The Blackstone Group	Private Equity Fund (Real Estate Group)	BX	Equity Office (#1)	Office REIT	EOP	39,000	2/9/2007
Retail	- Simon Property Group - Farallon Capital	Retail REIT (#1) Private Equity Fund	SPG N.A	The Mills (# 5)	Retail REIT	MLS	7,900	4/3/2007
Hotel	The Blackstone Group	Private Equity Fund (Real Estate Group)	BX	Hilton Hotels (#2)	Hotel Owner/ Operator	HLT	26,000	10/24/2007
Resi-dential	-Tishman Speyer -Lehman Brothers Real Estate Group	Private RE Developer Private Equity Fund	N.A LEH	Archstone-Smith (#3)	Residential REIT	ASN	22,200	10/5/2007

* No major M&A transaction in Industrial REIT sector

Source: The Institutional Real Estate Letter, January 2008.

In Blackstone's Equity Office deal, there was one episode that Vornado Realty (a public REIT) led a consortium (including Vonrado Realty, and two leading real estate private capital firms: Starwood Capital and Walton Street Capital) and attempted to outbid Blackstone's cash offer of $ 23.0 Bn for 100% EOP shares. EOP Board of Trustees still chose the deal proposed by Blackstone on February 1, 2007, mostly because Blackstone offer was 100% cash and due to the fear of the prolonged closing risk for Vornado's nearly half-share-half-cash offer.

Figure 5.16: Acquisition Offer Comparison on Equity Office Shares

	Vornado offer	Blackstone Offer
Last Offer Date	Feb 1, 2007	Feb 4, 2007
Bidder	Vornado-led Consortium: - Vonrado Realty (public REIT) - Starwood Capital (REIM) - Walton Street Capital (REIM)	Blackstone Group
Offer to acquire EOP Shares	US$ 23.3 Bn ($ 56.0 /share)	US$ 23.0 Bn ($54.0/ share)
Offer Type	Each share could convert into - $31.0 in Cash (55.4%) - $25.0 for Vornado Shares (44.6%)	All Cash
Dividend incurred before the closing	Vornado will pay pro rate share of EOP quarterly dividend at $0.33/ share until deal close	Nil
Flexibility for EOP's unit holders	Unitholders can exchange for same package as EOP shareholders or receive VNO's Class A Operating Units	Nil
Breakup fee *	Vornado will reimburse $500 Mn fee for EOP.	$ 500 Mn

* The amount that Blackstone would receive if another unsolicited offer should be accepted by EOP.

Source: The author based on Vornado's 8K announcement on Feb 1, 2007

http://www.vno.com/investor_relations/documents.phtml

Historical REIT Sector M&A Activity

According to Merrill Lynch Research[56], over the past 12 years there have been 56 public-to-public mergers and 38 "privatizations" of publicly traded real estate companies including the blockbuster $40 bn takeover of Equity Office by Blackstone in February 2007. Merrill Lynch states "while most public to public mergers provide few synergies on an operational basis, we expect the sector to experience a handful of mergers on an annual basis as REIT managers either come under operational pressure or become tired of running public companies".

Among those public-to-public mergers, I also observed some public REITs jointly acquire some other REITs by teaming up with REIMs, as evidenced by some of Kimco Realty's single-partner JV fund (such as $4.1 Bn Pan Pacific Retail Properties acquisition with Prudential Real Estate Investors in 2006, and $1.5 Bn acquisition of PL Retail with DRA Advisors in 2006) to acquire other public REITs. Kimco's deal size is typically between $1.0 ~ $4.0 Bn in 2006. The deal size initiated by public REIT's private capital fund is normally found smaller that public REITs acquisition by private capital funds or REIMs (easily go higher than $10 Bn in year 2007).

Figure 5.17: Historical REIT Sector M&A Activity

Year	Public-to-Public M&A		Public-to-Private M&A	
	# of Deals	Value ($Mn)	# of Deals	Value ($Mn)
1996	3	$3,931	1	$1,121
1997	8	$10,046	0	$0
1998	10	$14,776	2	$2,507
1999	4	$5,551	2	$2,359
2000	3	$8,599	1	$1,211
2001	4	$12,841	2	$4,037
2002	4	$7,984	1	$605
2003	1	$1,314	1	$2,051
2004	7	$23,702	0	$0
2005	2	$8,238	9	$24,091
2006	7	$31,666	9	$19,953
2007	3	$17,200	**10**	**$86,078**
Total	56	$145,849	38	$144,015

Source: Nuts & Bolts: REIT Primer #3, Merrill Lynch, June 2, 2008

For those public-to-private M&As, the general belief is that private equity funds or REIMs perceive higher value in a public REIT's private real estate portfolio than together as a public REIT's market value.

[56] "Nuts & Bolts: REIT Primer #3", Merrill Lynch, page 29, June 3, 2008.

Performance of Real Estate Investment Manger

I had hoped to present some evidence about the performance of public REITs' private capital funds, but unfortunately there is no publicly available information. NCREIF does have one set of core fund index that provides quarterly return over 26 private open-ended funds. In my data statistics in Section 3.1 (Fund Strategy Setting), I have noted there are 4 non-listed commingled open-end core funds in Figure 3.4 (Comparison of Commingled Funds among 7 Studied Public REITs). Neither of them has been pooled into the statistics of "NFI-ODCE Index[57]" by NCREIF, however.

I plan to end this section by showing performance of REIMs, as surveyed by a joint force between NCREIF and The Townsend Group. The Townsend Group is the largest pension fund advisor in the U.S. The research report was named "Real Estate Fund Indices – Preliminary Report, 4th quarter 2007" and released on May 27, 2008.

The report first shows the time-weighted index return (gross of fee returns) for core, value-added and opportunistic funds. The mean return statistics of year 2003-2007 for three types of funds are 15.4%, 18.7% and 32.2% respectively.

Figure 5.18: Time-weighted Index Return (Gross of Fee Returns)

Year	Core	Value-added	Opportunistic
2003	9.60%	11.30%	17.80%
2004	13.80%	17.60%	31.00%
2005	21.20%	27.50%	44.90%
2006	16.50%	19.00%	44.40%
2007	15.90%	18.10%	22.90%
Mean	**15.40%**	**18.70%**	**32.20%**
5-yr Std Deviation	2.08%	3.83%	9.45%

Source: NCRIEF & The Townsend Group (May 27, 2008)

The statistics suggest the investment manager selection among a value-added and opportunistic funds are much more important than core funds, because there is a large variation in returns for value-added and opportunistic funds (3.83% and 9.45% standard deviation respectively). An institutional investor, presumably, may end up with low teen (below 12%) return for value added funds and opportunistic funds. This return is actually less than the mean of core funds at 15.40%.

[57] The NFI-ODCE stands for NCREIF Fund Index – Open-ended Diversified Core Equity). It is a fund-level capitalization weighted, time-weighted return index and includes property investments at ownership share, cash balances and leverage (i.e., return reflects the funds' actual asset ownership positions and financing strategy).

The report also has a total gross return statistics (top quartile, median, and bottom quartile) of funds (Core, Value-added and Opportunistic) that have full 5-year history. Again, the 1-standard deviation dispersion statistic for core funds is 1.48%, much less than 10.81% for value-added funds and 17.14% for opportunistic funds.

Figure 5.19: Total Gross Return – Annualized 5-Yr Universe Statistics

	Core	Value-added	Opportunistic
Top Quartile	15.30%	21.20%	34.60%
Median	**14.50%**	**18.40%**	**23.60%**
Bottom Quartile	13.50%	12.20%	12.70%
Dispersion (1-std deviation)	**1.48%**	**10.81%**	**17.14%**
# of Funds	12	23	63
Leverage (at 07' YE)	21.90%	42.90%	63.70%

*For Funds with full 5 year history
Source: Real Estate Fund Indices Preliminary Report, NCREF & The Townsend Group, May 27, 2008

The statistics[58] further suggest some value-added funds may provide negative return (= 18.41% - 2 deviation *10.81% = -3.22%). The bottom-quartile return for opportunistic funds is even worse (= 23.6% - 2 deviation *17.14% = -10.68%). The return statistics shown in Figure 5.19 has yet net of "Cost-to-invest". After netting "Cost-to-invest" of 200-500 bps, suggested by Joanne Douvas (2003) shown Figure 3.15 (Net Returns under Various Investment Strategies), the net return of the bottom 25% value added and opportunistic funds can easily go below zero.

Why Public REIT's Private Capital for Pension Fund?

If one institutional investor plans to add real estate valued-added fund exposure, it would be fair to say that picking the right public REIT's commingled fund might be a wise decision, because most of public REIT's valued added funds are actually enhanced leveraged returns from the "core properties" (please refer to Section 3.2). The biggest challenge is that there may be few public REIT-sponsored private capital funds always available in the market. This matters more if the institutional investors wants exposure to different property types.

In particular, those private commingled funds sponsored by public REIT are mostly "exclusive take-out funds" in public REIT's major markets. ProLogis North American Industrial Fund (2006), the largest fund $1,500 Mn, serves as the exclusive take-out fund for US and Canada; AMB Institutional Alliance Fund III

[58] Despite no return distribution given, normal distribution of return statistics is assumed for the three types of funds.

(2004), $1,006 Mn in size, is the exclusive take-out vehicle in US; Regency Retail Partners (2007), expected $565 Mn fund size, is the exclusive take-out vehicle for larger format newly developed retail centers. If Public REITs are slowing down their development activities in a certain market, it would be difficult for public REITs to structure such fund products for institutional investors.

Considering $1,000 Mn equity fund size of AMB Alliance Fund III (with 55% leverage cap), the Fund would have take-out purchase power of $ 2,222 Mn assets. AMB currently is a $4,820 Mn capitalization company with 46% debt. Net Asset Value for AMB Property as whole stands at $2,603 Mn. In Figure 3.32 (Development Pipeline Ratio for 7 Studied REITs and Industry Average), I have shown AMB's total development line as of 2007YE stands at $1,713 Mn. AMB Fund III can almost take out the entire existing development pipeline or 66% of AMB's assets (some double counting between AMB's development pipeline and Net Asset Value)!

Therefore, I have observed these over $1,000 Mn funds, are structured as "perpetual open-ended" investment vehicles for public REITs. These funds serve as "on-going" development funds for the parent REITs. These funds are also unlike "Finite life fund product" that has limited life (8-10 years) and the corresponding need to dispose the assets after the first 3-5 year investment period.

Chapter 6 Conclusion

6.1 What We Have Learned?
6.2 The Future of Public REIT-sponsored Private Capital Business

In Section 6.1, I provide a quick overview of what we have learned about the private capital fund that is managed by public REITs. I highlight three main contributions and conclusions of this research:

1. Identification of Leading Open-ended Commingled Funds managed by Public REITs
2. Merchant Development Adds Fuel for Private Capital Business
3. "Co-opetition" Exists Among Pension Funds, REIMs and REIT Private Capital

In Section 6.2, I conclude by exploring a few forward-looking questions:

1. Will the REIT Private Capital Platform Spillover to Other REIT Sector Leaders?
2. Shall or Will ProLogis to Turn into a Fund Management Company?
3. How shall the private capital business valued in public REITs' setting (along with question 2)?

6.1 What We Have Learned?

In this thesis I have characterized and described the phenomena of Public REIT-sponsored Private Capital Funds. I briefly explored the nature of public REITs and private capital, managed by these public REITs. Finally, I combined the two in order to answer: What does this industry "black box" (Public REIT-sponsored Private Capital Fund) aim at providing public REITs and fund investors (pension funds and REIMs). What is the value proposition of this particular field in the past (1998-2000), as of now (2008) and in the future (next 3-5 years)?

Given the limited disclosure by public REITs about their private capital funds and a lack of standardized industry terms and practice, I have explained to the audience (the best I can) about why and how private capital funds, sponsored by public REITs, are structured and managed. The thesis, in essence, is a fact-finding research journey. I have also provided some analytical framework with respect to the characterization of these private capital funds, merchant development, structure diagram of these funds, and investor choices on various real estate fund products.

I want to draw readers' attention in the following three findings to conclude my thesis.

Leading US Open-ended Commingled Funds managed by Public REITs

We have learned these private capital funds started from the year during year 1998-2000, where the public capital market was shut off for these REITs' secondary equity financings. By looking into the structure and target market of top 3 open-ended commingled funds (with fund size over $500 Mn) in Figure 6.1, this field can be described to have experienced phenomenal growth over the past decade.

Figure 6.1: Comparison for 3 US Open-ended Commingled Funds, Managed by Public REITs

Fund Name	REIT Manager	Since	Fund Style Strategy	Fund Size ($ Mn)	REIT's Owner-ship	Key Investors	Target	Total Assets ($ Mn)	Target Leverage
ProLogis North American Industrial Fund	ProLogis	2006	Core	1,500	23.2%	GIC RE takes the lead	Exclusive take-out for US and Canada	2,105	55-60%
Regency Retail Partners	Regency	2007	Core	565	20.0%	Various.	Exclusive take-out vehicle for large format newly developed retail.	209	60%
AMB Institutional Alliance Fund III	AMB	2004	VA	1,006	18.0%	Grouping 12 investors in a private REIT, acting as LP to the Fund	Take-out vehicle in US	1,975	55%

Source: the Author

The above-mentioned three funds, in my view, are no different than leading REIMs' core strategy or value added funds, in terms of clientele base, fund terms, and leverage capacity. The only difference, I can ascribe, is the public REITs' typical ownership of 20%, an ownership concentration which is highly unlikely to be observed in REIMs' over half billion core/value added funds. The 20% ownership from REITs actually reveals a great "alignment of interest" indicator, which institutional investors highly regard while investing with public REITs' private capital funds.

Merchant Development Adds Fuel for Private Capital Business

We have also learned that these public REITs would not have grown successfully without the added fuel from the merchant development activities. This statement is particularly true when applied to the industrial REIT sector. The best case is demonstrated by ProLogis' solid business model comprised of three indispensible pillars – merchant development, core portfolio and fund management.

Merchant development gains and fund management together have accounted around 75% of ProLogis' 2007 FFO (in Figure 4.8: 2007 FFO Breakdown for 3 Industrial REIT Managers). In this sense, ProLogis does not seem like a REIT anymore, because REITs are supposed to be passive investors for core portfolio holding and pay out as dividends most of their net income.

Is it possible that industrial REITs, such as ProLogis could gear up that 75% pie to the next level, say, 80%, 85% or more? Then, next question would be, "Will ProLogis maintain its qualification as REIT?" Should people describe ProLogis as a fund management company, such as Eaton Vance, Janus Capital or Franklin Resources, or a merchant developer, such as Pulte Homes, D.R. Horton, Lennar Corp. in the home building industry? I will continue this discussion (or worry, to be exact) from the REIT Code's perspective in the next Section (6.2).

"Co-opetition[59]" Among Pension Funds, REIMs and Public REITs' Private Capital

By looking into the structure diagram for public REIT-sponsored private capital fund (at Figure 5.1), I concluded that two primary investors in these funds, pension funds and REIMs, could also be competing with public REITs' private capital funds. Evidenced by major real estate M&A activities in 2007, REIMs and pension funds are seen to compete with public REITs' private capital funds directly for four types of

[59] "Co-Opetition", a business school term, created in 1997 by Adam M. Brandenburger (Harvard Business School) and Barry J. Nalebuff (Yale School of Management). It refers to "Competition and Cooperation". The authors argue most businesses and their transactions lie somewhere between the two poles (Source: Amazon.com's editorial review, accessed on July 18,2008)

investment that we have observed (public REITs acquisition, property portfolio, stabilized properties, and development projects).

On that, we have categorized the observation into "Expanded REIM's Role" in Figure 5.13. As I have discussed in Section 5.3 (Evolving Role of Real Estate Investment Manger), I found that the acquired REITs in 2007 did not have significant private capital strategies along with their REITs' core portfolios. Does that co-incidence suggest private capital business under public REITs provides "immunization" for parent REIT to be taken over?

I would argue from the REIMs' arbitrage perspective (to take public REITs private) that once a leading REIT has its private capital business, its business nature has turned into a combination of both public and private real estate. Thus, the acquiring REIMs would find difficult to accurately evaluate the true value of a public REIT. In additional, the built-in buy/sell agreement in most of the public REITs' private capital funds would (be very expensive!) also deter the acquiring REIMs from making big offers to public REITs.

Kindly note that I do not categorize the activities for REIM's to make investment (mostly minority) in public REIT securities as the "co-opetition" phenomenon. In either separate account or commingled fund setting for public securities investment, REIMs' investment objective for clients is to seek capital growth and dividend income from public REIT sector, rather than to own majority holding of a REIT company or to take a public REIT private. Most of these funds also have limitation to hold direct real estate and liquidity requirement in their public REIT portfolios.

6.2 The Future of Public REIT-sponsored Private Capital Fund

To conclude my research, I explore a few forward-looking questions:

1. Will the REIT Private Capital Platform Spillover to Other REIT Sector Leaders?
2. Shall or Will ProLogis to Turn into a Fund Management Company?
3. How shall the private capital business valued in public REITs' setting (along with question 2)?

Spillover of REIT Private Capital Platform to each REIT Sector Leaders

Should there be no significant REIT Code changes in the next few years, I am confident the REITs' private capital funds will spillover from industrial and retail sectors to other REIT sectors as well (such as office and residential sectors). However, this scenario, in my projection, will be only limited to each sector's top 3, or at most, top 5 firms. There are two rationales for this prediction.

First, institutional investors, while investing in REIT's private capital fund, are also betting on the sustainability of the parent REITs' continued execution of it private capital fund strategy. The fund strategy is mostly referred to take out REITs' existing core properties or newly developed and stabilized properties. As more institutional investors are chasing sizable real estate deals from leading real estate developer and operators, public REITs in my view, is one of the most reliable partners who can accurately execute the particular real estate strategy for institutional investors in a sizeable and predicable format.

Second, on the REIT side, if the Street maintains a positive view toward REIT peers (such as Kimco, ProLogis and AMB) for their continually growth of private capital platform, other sector REIT leaders, including Simon Property[60] and General Growth Properties (regional mall), Boston Properties and SL Green Realty Corp. (office), AvalonBay Communities Inc. and AIMCO (residential), Public Storage(Self-storage), and Host Hotels & Resorts Inc. and Hospitality Properties Trust (hotel), will also test and try to see if any of their portfolio can be easily "carved-out" and to embrace their own private capital platform.

Those sector-leading REITs might be able to jump directly to an open-ended commingled fund, without starting from single-partner equal share JVs that were done in 1998-2000 by Kimco, AMB, DDR, and ProLogis. However, a track record may take more time to build, as competition for the same investor clientele will be more fierce.

[60] For REIT sector leaders (in terms of market capitalization), please refer to "July 2008 REIT Watch", by NAREIT for the REIT valuation information, page 6-12.

Shall or Will ProLogis to Turn into a Fund Management Company?

The forward-looking question is a response to the following three concerns that I have mentioned in the previous chapters and now summarize below.

First, a recent concern about above 75% FFO coming from merchant development and private capital for leading public REITs (such as ProLogis) may trigger regulatory scrutiny from Internal Revenue Service. Because this represents a huge deviation from original purpose of being a REIT – to act as passive investor for core portfolio holding and pay out as dividends most of its net income.

Second, NAREIT, as discussed at Section 4.1, has negatively commented on ProLogis' "arbitrage" of the FFO definition with respect to its CDFS business. ProLogis takes an "un-depreciated CDFS asset approach" and claims that the gain from sales of CDFS assets should not be excluded from NAREIT's definition of FFO.

Third, if there were legal concerns about ProLogis' favoritism toward its private capital clients and negligence of its fiduciary role to other investors, ProLogis might come under regulatory scrutiny and be torn apart. This concern does not apply to ProLogis only. Lot of individual investors (or/ and some institutional investors) have been questioning for the public REITs' investment activites in the past few years – "Which hat a REIT is wearing on a particular deal? Is it for parent REIT? Or is it for its private capital fund?" The scrutiny result could be that only ProLogis' core portfolios would maintain REIT status, while the CDFS (Merchant Development) and fund management business of ProLogis would be required to form a new entity or two separate entities.

Would this be bad for ProLogis? Not exactly.

I only address this question from the capital market perspective. Other factors, such as organization strategy and synergy, economics of scale vs. scope, vertical integration etc, shall also be considered.

Under current REIT regime, merchant development gain, in Section 3.3 (Analysis of Private Capital Income – The Case of AMB Capital Partners) receives a **4x** price multiple (equivalent to 25% capitalization rate assumed) in the Street.

A profit-growing merchant builder can be compared to a growth stock in the technology sector or retail sector, in some sense. Therefore, I expect that a merchant builder's price multiple, under general capital market conditions, can easily go above a **10x** price multiple.

On the fund management (private capital) side, I provide a peer valuation comparison for ProLogis vs. 6 leading asset managers in Figure 6.3. The average asset managers' 2008 forward P/E multiple as of its July 21, 2008 closing price, was **22.7x** on average

Figure 6.2: Peer Valuation Comparison – ProLogis vs. 6 Asset Managers

Company	Price *	Mkt Cap ($ Bn)	AuM ($ Bn)	2007 Net Income ($ Mn)	P/ E (2008F)	P/E (2007A)
ProLogis	51.45	13.49	15.0	1,074	14.29	12.56
Eaton Vance	34.17	3.96	156.7	143	19.85	27.73
Janus Capital	25.36	4.13	187.6	116	37.87	35.51
Legg Mason	32.31	4.50	376.6	268	17.85	16.82
T. Rowe Price	54.19	14.07	322.0	671	22.16	20.98
BlackRock	213.20	25.12	1,357.0	995	25.85	25.24
Franklin Resources	90.48	21.39	580.2	1,773	12.42	12.06
					22.67	23.06

*Closing Price on July 21, 2008. For ProLogis AuM, we use $18.78 Bn Fund Gross Asset * 80%
Source: Google Finance

If the market is willing to re-do the sum-of-the-part analysis on ProLogis (based on cross sector comparison), the sum of ProLogis' three business lines valued separately could be greater than its combined value now as it is being traded in the REIT sector.

Figure 6.3 provides a simulated valuation result based on actual data from Citigroup Research on ProLogis' NAV report on April 22, 2008. I apply new and lower cap rates (i.e. higher PE multiple) for the merchant development gain (25% down to 10%) and net asset management fee (from 10% down to 5.0%) to reflect higher value to these two types of income. I find a 30% valuation increase from doing the "sum-of-the-parts" analysis.

Figure 6.3: Re-Valuation on ProLogis' 4 Income Types

FFO Breakdown	Amount * ($ Mn)	Original Cap Rate	New Cap Rate	Original Private MV ($ Mn)	New Private MV ($ Mn)	Valuation Increase	Remark
Direct Ownership Property NOI	822	6.5%	6.5%	12,653	12,653	0	No change on Cap Rate
ProLogis' Property Fund NOI	229	6.5%	6.5%	3,525	3,525	0	No change on Cap Rate
Merchant Development Gain	775	25.0%	10.0%	3,098	7,746	4,648	Applying 10x PE Multiple
Net Asset Management Fee	147	10.0%	5.0%	1,466	2,932	1,466	Applying 20x PE Multiple
*Recent quarter annualized by Citigroup Research				20,743	26,856	6,113	30% Valuation Increase

Source: the Author's calculation based on Citigroup Research, 22 April 2008 on ProLogis

I do not want to conclude this section (or my thesis) to be about the potential split up of ProLogis. I use this perspective to analyze the evolution of public REITs' private capital that has gone on throughout the last decade. The capitalization rate changes provide a suggested answer to our last question (listed in Section 1.3, question 3.5):

> "How is the private capital business valued in public REITs? What are the reasonable earnings multiples for private capital income in public REITs? Do we need to assign different multiples for fixed management fees and for more volatile incentive fees?"

I conclude that we should reconsider to assign different multiples (something like shown in Figure 6.3) to re-evaluate the real value driver involved with various business segments of a public REIT. Investors now have no good idea about how to price correctly various income streams of a public REIT.

I feel some of the leading public REITs have been working hard to minimize investors concern in this regard. Those REITs have now provided the breakdown information of their private capital income (fixed asset management fee vs. volatile incentive fees). They also structure their opened commingled funds as "perpetual" – meaning it will provide recurring fee income to the parent REIT. The recurring fee income from private capital segment is more like the "franchise value of a fund manager" (even in the REIT setting), thus it is fair to apply a higher multiple for those recurring fee income.

Conclusion and Prediction

In conclusion, this field is maturing toward greater transparency and efficiency under the public REIT framework and along with the broader real estate private capital industry. Moving forward, public REIT-sponsored private capital fund is well positioned to grow as it complements a niche market for pension funds and REIMs to add private real estate exposure in a predictable and sizeable investment format.

As real estate in nature is a capital intensive business, I will not be surprised to see more leading public REITs (not only limited to the 7 studied REITs) raising open-ended commingled funds with fund size over $1.0 Bn in next 24-36 months with an aim to take out its existing portfolios or to fund its development pipeline. In the mean time, some small-sized REITs with a clear geographical focus might start contemplating their own private capital strategy to aid their continuing business growth. These funds will more likely to be single-partner joint venture funds with institutional investors.

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1. REIT History[61]

According to Thomson West's (2007) study, the origin of REITs can date back the 1880's in the form of "Realty Trust Concept". "Massachusetts Trust" was the vehicle used to pool ownership of real estate, because early state law often prohibited corporate ownership of real estate. In addition, the use of a business trust had beneficial income tax consequences; because the entity was treated as a trust for income tax purpose, it was not subject to tax at the entity level on the income it distributed to it beneficiaries.

However, this beneficial tax treatment ceased in 1935. In the landmark decision of *Morrissey v. Commissioner*[62], the Supreme Court held that business trust should be taxed as corporation. Thus, the business trust's income was subject to double taxation – once at the trust level and again at the shareholder level.

President Eisenhower signed the 1960 Real Estate Investment Trust Tax provision which re-established the special tax consideration qualifying REITs as passthrough entities, thus eliminating the double taxation. Its purpose was to allow small investors to pool their investments in real estate in order to get the same benefits as might be obtained by direct ownership, while also diversifying their risks and obtaining professional management.

Though REITs, investors are able to participate in large, high quality real estate interests that are selected and managed by knowledgeable, experienced professionals. REITs obtain funds not only by selling shares, but also by issuing other forms of securities and by borrowing. With these pooled funds, REITs can purchase or finance major real estate projects.

According to Thomson West, despite the advantages of the REIT structure, the industry experienced very little growth for over 30 years, believed for two main reasons.

One was that REITs were basically passive portfolios of real estate. REITs were permitted only to own real estate, not to operate and manage it. This meant REITs need to use third party independent contractors, whose economic interest might diverge from those of the REITs owners, to operate and manage the properties. This was an arrangement that investment marketplace did not accept warmly.

Second, during these years (1960-1980) real estate investment were colored by tax shelter-oriented

[61] Referenced from Chapter 1 (Overview and History of REITs) of "Real Estate Investment Trusts", Thomson West, Volume 29, 2007.
[62] Morrissey v. Commissioner, 296 U.S. 344 (1935).

characteristics. Though the use of high debt levels (70-90% leverage) and aggressive depreciation schedules, interest and depreciation expenses significantly reduced taxable income – in many cases leading to so-called "paper losses" used to shelter a taxpayer's other income. Since a REIT is geared specifically to create "taxable loss" on a regular basis and a REIT is not permitted to pass "losses" through to shareholders like a partnership, the REIT industry could not compete effectively for capital against shelters.

In the Tax Reform Act of 1986 ("the 1986 Act"), Congress changed the real estate investment landscape.

First, by limiting the deductibility of interests, lengthening depreciation periods and restricting the use of "passive losses", the 1986 Act drastically reduced the potential for real estate investment to generate tax shelter opportunities. This meant, going forward, that real estate investment needed to be on a more economic and income-oriented footing.

Second, the 1986 Act permits REITs not merely to own, but also to operate and manage most types of income producing commercial real estate.

Third, the 1986 Act has also subjected real estate for the first time to the "at-risk" rules. Under the "at-risk" rules, a taxpayer is not permitted to deduct losses generated by any business activity against compensation or income derived from other business activities unless the individual is "at risk" for such amount. This Tax Reform of 1986 also helped set the stage for a wave of equity REIT IPOs in the mid-1990s.

REIT Modernization Act of 1999

Federal tax law change whose provisions allow a REIT to own up to 100% of stock of a taxable REIT subsidiary that can provide services to REIT tenants and others. The law also changed the minimum distribution requirement from 95 percent to 90 percent of a REIT's taxable income – consistent with the rules for REITs from 1960 to 1980. Taxable REIT subsidiary ("TRS") was created in 1999 REIT Modernization Act that went into effect in January 1st, 2001.

2. Total Capital Raised from REIT Sector (1992-2007)

Total Capital Raised from REIT Sector (1992-2007) As of March 31, 2008

Period	Total		Total Equity		IPO Equity		Secondary Equity				Secondary Debt			
							Common Shares		Preferred Shares		Unsecured Debt		Secured Debt	
	#	Total Capital Raised	#	Total Capital Raised	#	Total Capital Raised	#	Total Capital Raised	#	Total Capital Raised	#	Total Capital Raised	#	Total Capital Raised
1992	57	6,705	31	2,064	7	1,008	23	1,010	1	46	7	709	19	3,933
1993	141	18,327	100	13,191	50	9,335	42	3,162	8	694	20	1,680	21	3,455
1994	146	14,771	97	11,121	45	7,176	48	3,690	4	255	26	2,140	23	1,511
1995	195	12,435	100	8,190	8	922	69	5,426	23	1,842	74	3,459	21	786
1996	221	17,063	145	12,309	6	1,108	113	9,268	26	1,933	72	4,426	4	328
1997	463	45,271	318	32,674	26	6,297	227	19,969	65	6,408	132	9,240	13	3,357
1998	474	38,382	314	21,507	17	2,129	216	12,443	81	6,935	145	13,786	15	3,088
1999	205	17,214	102	6,736	2	292	29	1,966	71	4,478	69	7,951	34	2,526
2000	114	10,376	42	2,834	0	0	11	1,172	31	1,662	70	7,013	2	529
2001	127	18,752	79	6,082	0	0	58	4,204	21	1,878	44	9,895	4	2,775
2002	187	19,768	113	8,384	3	608	85	5,785	25	1,991	71	10,638	3	745
2003	228	25,562	154	13,309	8	2,646	82	5,471	64	5,192	68	10,894	6	1,358
2004	266	38,773	169	21,176	29	7,980	79	7,338	61	5,858	97	17,306	0	0
2005	259	38,179	118	15,405	11	3,789	71	8,521	36	3,095	105	16,330	36	5,758
2006	204	49,018	119	22,205	5	2,271	75	15,695	39	4,239	82	25,261	3	1,551
2007	129	36,031	86	17,876	4	1,820	56	11,854	26	4,202	43	18,155	0	0
2008	26	5,559	24	5,264	0	0	17	4,197	7	1,067	2	295	0	0
	3,442	**412,186**	2,111	**220,327**	221	**47,381**	1,301	**121,171**	589	**51,775**	1,127	**159,178**	204	**31,700**

Source: REIT Watch, NAREIT (2008)

3. Equity REIT Structure[63] (Traditional REIT, Up-REIT, Down-REIT)

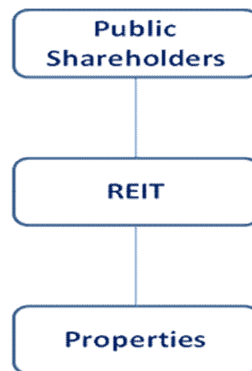
Appendix 3 is an excerpt on David Geltner et al. (2007) and Michael Brody[64] (2007).

Equity Real Estate Investment Trust (REIT)

According to NAREIT's Definition (2007), an equity real estate investment trust, or equity REIT, is a company that owns, and in most cases, operates income-producing real estate. To be a REIT, a company must distribute at least 90 percent of its taxable income to shareholders annually in the form of dividends

1). Traditional Public REIT

This structure is very straightforward. The public owns the stock of the REIT. The REIT owns the real estate, collects rent and pays dividends to its shareholders.



Source: the Author's rewrite on Michael Brody (2007)

Most REITs **before 1992** used this structure. They sold stock for cash and used the cash to buy real estate, frequently from the founders of the REIT.

According to David Geltner et al. (2007), The KIMCO IPO in November 1991 is widely credited as the **beginning of the modern REIT era**, as it was the first of the new breed of large, well-established private real estate companies to choose to go public by using a REIT structure Kimco used the traditional REIT structure for its IPO.

This provided Kimco with access to the public capital markets and provided its shareholders with liquidity. In addition, KIMCO was previously a taxable corporation. By making a REIT election, it was permitted to

[63] Excerpt of Chapter 23(REITs) of "Commercial Real Estate Analysis &Investments", David Geltner et al., Thomson South Western, 2007.

[64] Michael Brody, "Doing Business With REITs and Joint Ventures", Partner at Latham &Watkins LLP, 2007 ICSC Law Conference, San Diego, California, March 1, 2007.

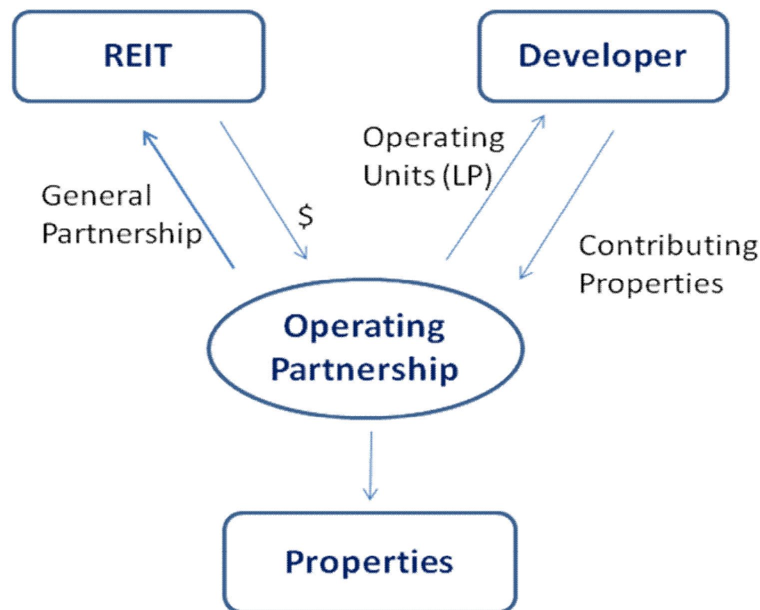
deduct its dividends in calculating its federal income tax, and generally avoid the payment of that tax.

While property may be transferred to a corporation in exchange for its stock on a tax free basis in many circumstances, a Treasury Regulation relating to REITs made that transfer fully taxable to the transferor. This prevented other property owners from converting to a traditional REIT structure, since they were not willing to pay the resulting income tax. While this regulation has since been amended to allow a tax free contribution of property to a REIT in limited circumstances, few REITs have been able to make use of this provision. The umbrella partnership REIT, or UPREIT, was developed to address this tax problem.

2). Up-REIT

While property generally can't be contributed to a REIT in exchange for its stock without triggering a taxable gain, it can be contributed on a tax free basis to a partnership in exchange for partnership interests (subject to certain limitations, generally described below).

The first public UPREIT is generally believed to have been the Taubman transactions, which made the IPO on November 22, 1992. In the typical UPREIT, the developer (or partners of the Existing Partnerships) and a newly-formed REIT become partners in a new partnership termed the Operating Partnership. For their respective interests in the Operating Partnership ("Units"), the developer contributes the properties and the REIT contributes the cash proceeds from its public offering. The REIT typically is the general partner and the majority owner of the Operating Partnership Units.



Source: the Author's rewrite on Michael Brody (2007)

The developer, the former owners of real properties, usually end up holding limited partnership interests and the REIT has a general partnership interest in the UpREIT. Generally, the LP interests are not listed or the subject of a registration statement as is the REIT stock. Consequently, an UPREIT structure typically provides the holders of LP interests with the right to convert their partnership interests into REIT stock. The conversion itself will be taxable to the holder of the partnership interest.

Michael Brody (2007) gave an example by using a context of an IPO. If a REIT sells its stock for $20/share, the REIT would contribute that cash to its operating partnership (or "OP") in exchange for OP units valued at $20/unit. Similarly, property contributed to the OP by property owners is transferred in exchange for OP units valued at $20/unit. As a result, each REIT share and each OP unit represents an undivided and equivalent interest in the same pool of real estate (i.e., the properties owned by the OP).

After a period of time (often one year), the partners may enjoy the same liquidity of the REIT shareholders by tendering their Units for either cash or REIT shares (at the option of the REIT or Operating Partnership). This conversion may result in the partners incurring the tax deferred at the UPREIT's formation. The Unitholders may tender their Units over a period of time, thereby spreading out such tax. In addition, when a partner holds the Units until death, the estate tax rules operate in such a way as to provide that the beneficiaries may tender the Units for cash or REIT shares without paying income taxes.

3). DownREIT

A DownREIT is structured much like an Up-REIT, but the REIT owns and operates properties other than its interest in a controlled partnership that owns and operates separate properties.

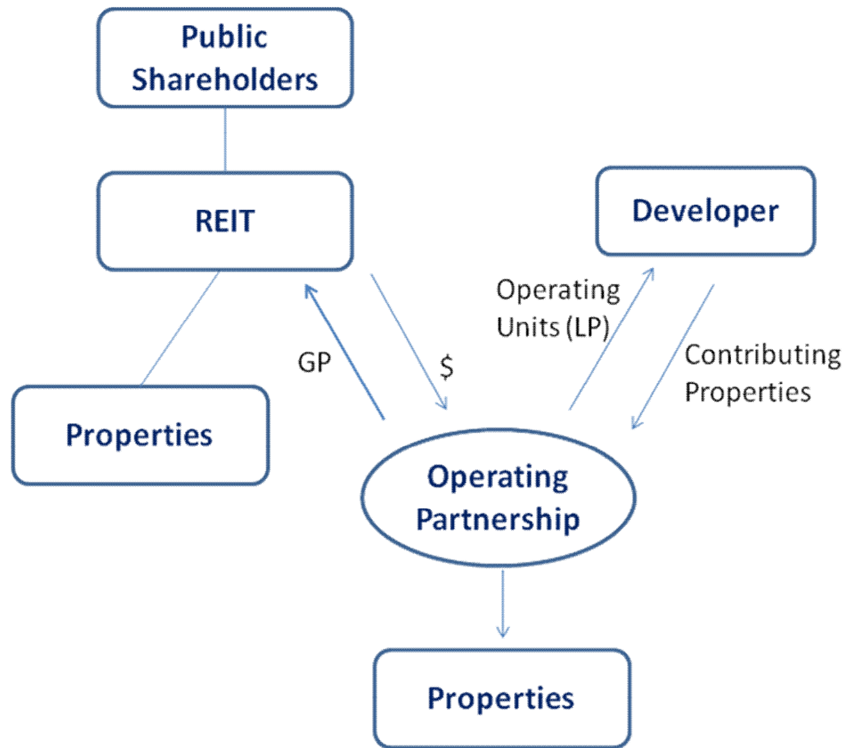
The only difference between an UPREIT structure and a DownREIT structure, is that in a DownREIT, the REIT owns assets outside of its interest in the Operating Partnership.

Why are DownREITs Needed?

The first public UPREIT was Taubman Centers, Inc., which went public in 1992. Prior to that, all public REITs were traditional REITs, with no OP. In addition, most of these REITs owned a substantial amount of property before they became aware of the UpREIT structure.

However, transferring all of this property to an OP, in order to become an UPREIT, would be both expensive (i.e., possible transfer tax, property tax reassessment, etc.) and time consuming (reviewing leases

and loans for consent rights, etc.). In order to avoid this time and expense, traditional REITs have typically chosen to use the DownREIT structure, in which their previously owned property continues to be owned by the REIT, and is not contributed to the OP.



Source: the Author's rewrite on Michael Brody (2007)

What Does This Structure Difference Mean to Contributors?

According to Michael Broady (2007), the minor structural difference between an UpREIT and a DownREIT adds economic complexity to the transaction. In the DownREIT structure, the Unitholders own OP units, which represent an indirect interest in the OP's property and entitle the Unitholders to distributions attributable to such property. However, a share of REIT stock represents an indirect interest in both the OP's property and the REIT's separate property, and entitles the REIT shareholders to distributions attributable to both pools of property. As a result, REIT shares and OP units in a DownREIT are not always fungible (i.e., the distribution per OP unit may not always be equal to the REIT dividend per share).

4. Organizing and Qualifying as a REIT[65]

The section is an excerpt on Thomson West (2007) research.

According to Thomson West's Research, IRS is concerned that REITs might use their tax-favored status to gain a competitive advantage over non-qualifying entities in the operation of active trade or business. For this reason, a REIT must satisfy four tests on a year-by-year basis. These tests relate to its organizational structure, assets, source of income and distribution of income.

1). Organization Test

To qualify as a REIT, an entity must meet the following eight organization rules. I have summarized from Thomson West (2007) and Kathleen Smalley (2008) in the below table for the related IRS Code with respect to the organization test.

IRS Code	Rule
856 (a)	A REIT must be organized as a corporation, business trust, or association
856 (a) (1)	It must be managed by one or more trustees or directors
856 (a) (3)	It must be taxable as a domestic corporation but for the provisions of the Cod specially applicable to REITs
856 (a) (4)	It must not be a financial institution or insurance company.
856 (a) (6) 856(h)(1)(2)	It must not be "closely held" within the meaning of the personal holding company provisions of the Code. Not have more than 50% of its stock owned by 5 or fewer individuals during the last half of its taxable year (after the first taxable year in which the entity elects to be taxed as a REIT)
856 (a) (5)	It must be beneficially owned by 100 or more persons
856 (a) (2)	It must have such beneficial ownership evidenced by transferable shares or transferable certificates of beneficial ownership.
856 (c) (1)	It must file with its tax return an election to be treated as a REIT, or have made such an election for a prior taxable year that remains in effect

Source: the Author based on Thomson West (2007) and Kathleen Smalley (2008)

2). Asset Test

At the close of each quarter of the taxable year, a REIT's assets must meet the following tests

IRS Code	Rule
75% test:	The REIT's assets must be at least 75% by value in real estate, cash and cash items

[65] Referenced from Chapter 2 (Organization and Qualifying as a REIT) of "Real Estate Investment Trusts", Thomson West, Volume 29, 2007.

856 (c)(4)(a)	(including receivables), and Government securities
25% test 856 (c)(4)(b)(i)	No more than 25% by value of the RE IT's assets can be held in securities other than government securities
Taxable REIT subsidiaries 856 (c)(4)(b)(b)	<u>No more than 20% of the total asset by value can be represented by securities of taxable REIT subsidiaries.</u>
Investment limitation on non-TRS asset 856 (c)(4)(b)(iii)	<u>Except TRS</u> and securities includible under 856 (c)(4)(a): I) Not more than 5% of the value of its total assets is represented by securities of any one issuer II) The trust does not hold securities possessing more than 10% of the total voting power of the outstanding securities of any issuer. III) The trust does not hold securities possessing more than 10% of the total value of the outstanding securities of any one issuer
Real Estate Asset Definition 856 (c)(5)(B)	The term "real estate assets" means real property (including interests in real property and interest in mortgages on real property) and shares (or transferable certificates of beneficial interest) in other real estate investment trusts which meet the requirements of this part. Such term also includes any property (not otherwise a real estate asset) attributable to the temporary investment of new capital, but only if such property is stock or a debt instrument, and only for the 1-year period beginning on the date the real estate trust receives such capital.
Interests in real estate property Definition 856 (c)(5)(C)	The term "interest in real estate property" includes fee ownership and co-ownership of land or improvement thereon, leaseholds of land or improvements thereon, option to acquire land or improvements thereon, but does not include mineral, oil, gas royalty interests.

Source: the Author based on Thomson West (2007) and Kathleen Smalley (2008)

<u>(3). Income-Source Test</u>

In addition to meeting the organizational requirement and asset tests, an entity wishing to qualify for treatment as REIT must meet two separate tests regarding the sources of its income. These tests are designed to ensure that REITs are used principally as vehicles for passive investment, with an emphasis on real estate investment.

(A) 95% Test – 856 (c)(2)

At least 95 percent of its gross income (excluding gross income from prohibited transactions) is derived from

(A) dividends;

(B) interest;

(C) rents from real property;

(D) gain from the sale or other disposition of stock, securities, and real property (including interests in real property and interests in mortgages on real property) which is not property described in section 1221(a)(1);

(E) abatements and refunds of taxes on real property;

(F) income and gain derived from foreclosure property (as defined in subsection (e));

(G) amounts (other than amounts the determination of which depends in whole or in part on the income or profits of any person) received or accrued as consideration for entering into agreements (i) to make loans secured by mortgages on real property or on interests in real property or (ii) to purchase or lease real property (including interests in real property and interests in mortgages on real property); and

(H) gain from the sale or other disposition of a real estate asset which is not a prohibited transaction solely by reason of section 857(b)(6)

REITs need not invest exclusively in real estate-oriented investments in order to meet the terms of the 95 percent income-source test; in fact, the 95 percent income-source test, standing along, does not require REITs to make any investment in real estate. Rather, this test is designed to ensure that entities qualifying as REITs operate as passive investment entities and do not engage in operating in active trade or business, thereby competing unfairly with non qualifying business that must distribute profits on an after-tax, rather than a pretax basis.

(B) 75% Test- 856 (c)(3)

At least 75 percent of its gross income (excluding gross income from prohibited transactions) is derived from

(A) rents from real property;

(B) interest on obligations secured by mortgages on real property or on interests in real property;

(C) gain from the sale or other disposition of real property (including interests in real property and interests in mortgages on real property) which is not property described in section 1221(a)(1);

(D) dividends or other distributions on, and gain (other than gain from prohibited transactions) from the sale or other disposition of, transferable shares (or transferable certificates of beneficial interest) in other real estate investment trusts which meet the requirements of this part;

(E) abatements and refunds of taxes on real property;

(F) income and gain derived from foreclosure property (as defined in subsection (e));

(G) amounts (other than amounts the determination of which depends in whole or in part on the income or profits of any person) received or accrued as consideration for entering into agreements (i) to make loans secured by mortgages on real property or on interests in real property or (ii) to purchase or lease real property (including interests in real property and interests in mortgages on real property);

(H) gain from the sale or other disposition of a real estate asset which is not a prohibited transaction solely by reason of section 857(b)(6); and

(I) qualified temporary investment income; and

Thus, permissible income under the 75 percent income-source test, with the exception of qualified temporary investment income, must relate in some way to real estate investment by the REIT. It is the 75 percent income-source test that operates to ensure that REITs derive the bulk of their income from real estate as opposed to other forms of permitted passive investments.

Together, the income tests require that the bulk (in most cases, 75%) of the REIT's gross income come from passive ownership of real estate and that an additional 20% come from real estate or other passive investments. The remaining 5% can be any items that satisfy the 75% or the 95% test, or they can be "bad income". The key exception to this general description is that the REIT is allowed to have additional investment income in the period immediately following the raising of new capital, which eliminates the need to use newly raised capital immediately to buy real estate.

(4). Distribution Test

A REIT must distribute at least 90% of taxable income, with some adjustments, to its shareholders. § 857 (a)(1).

The REIT receives dividends paid deduction for qualifying dividend distributions. The REIT is subject to corporate tax on amounts retained and not distributed.

5. Taxable REIT Subsidiary[66]

The following section is an excerpt on Thomson West (2007) research.

According to Thomson West (2007), there are two types of wholly owned corporate subsidiaries under REIT regime.

(1). Qualified REIT subsidiaries § 856(i).

A qualified REIT subsidiary is a wholly owned subsidiary (that does not elect to be a taxable REIT subsidiary). A corporation which is a qualified REIT subsidiary shall not be treated as a separate corporation, and all assets, liabilities, and items of income, deduction, and credit of a qualified REIT subsidiary shall be treated as assets, liabilities, and such items (as the case may be) of the real estate investment trust.

(2). Taxable REIT subsidiaries ("TRS")

A TRS is a non-REIT corporation owned wholly or partly be a REIT that has joined its REIT stockholder in an election to be treated as a TRS. TRS status is automatic, and no election is needed with respect to any corporation if more than 35 percent of the total voting power or value of the outstanding securities of such corporation is owned by a REIT (§ 856(l)(1) and§ 856(l)(2))

A TRS need not be controlled by a REIT. A TRS can provide services to REIT tenants even if such services are not considered services customarily furnished in connection with the rental of real property (§ 856 (d) (7)(c)). A TRS can develop, manage, or operate properties for third parties. However, a taxable REIT subsidiary cannot be in the business of operating lodging or health care facilities (§ 856(l)(3)). In our understanding, this is also the reason why hotel REIT is not commonly seen to manage the third party clients' money.

All activities of a TRS are fully subject to a corporate level tax. A REIT is allowed to own 100% of a TRS and may own numerous TRSs provided that not more than 20% of the value of a REITs total asset is represented by one or more TRS securities.

[66] Referenced from Chapter 3 (Taxable REIT Subsidiaries) of "Real Estate Investment Trusts", Thomson West, Volume 29, 2007.

A REIT derives income from an affiliated TRS by way of dividends. Dividends are <u>non-real estate source passive income.</u> Because a REIT is required to have at least 75% of its income from real estate sources, dividends from TRS, aggregating with all other non-real estate income are limited to 25% of a REIT's gross income.

Worth to note, the incentive fee to the fund manager (derived from selling the assets held under JV funds) can be attributed as part of "75% Test: good income" under IRS **856 (c)(3) -** gain from the sale or other disposition of real property.

6. Vertical Integration of REIT

David Geltner et al. (2007) states "large REITs are actively-managed, vertically integrated firms, providing commercial real estate goods and services for their "customers" (tenants and users of space)". The REIT can be self-administered and self-managed real estate investment trust that acquires, develops, operates and manage their self-owned and jointly-owned properties., as diagramed in the following chart.

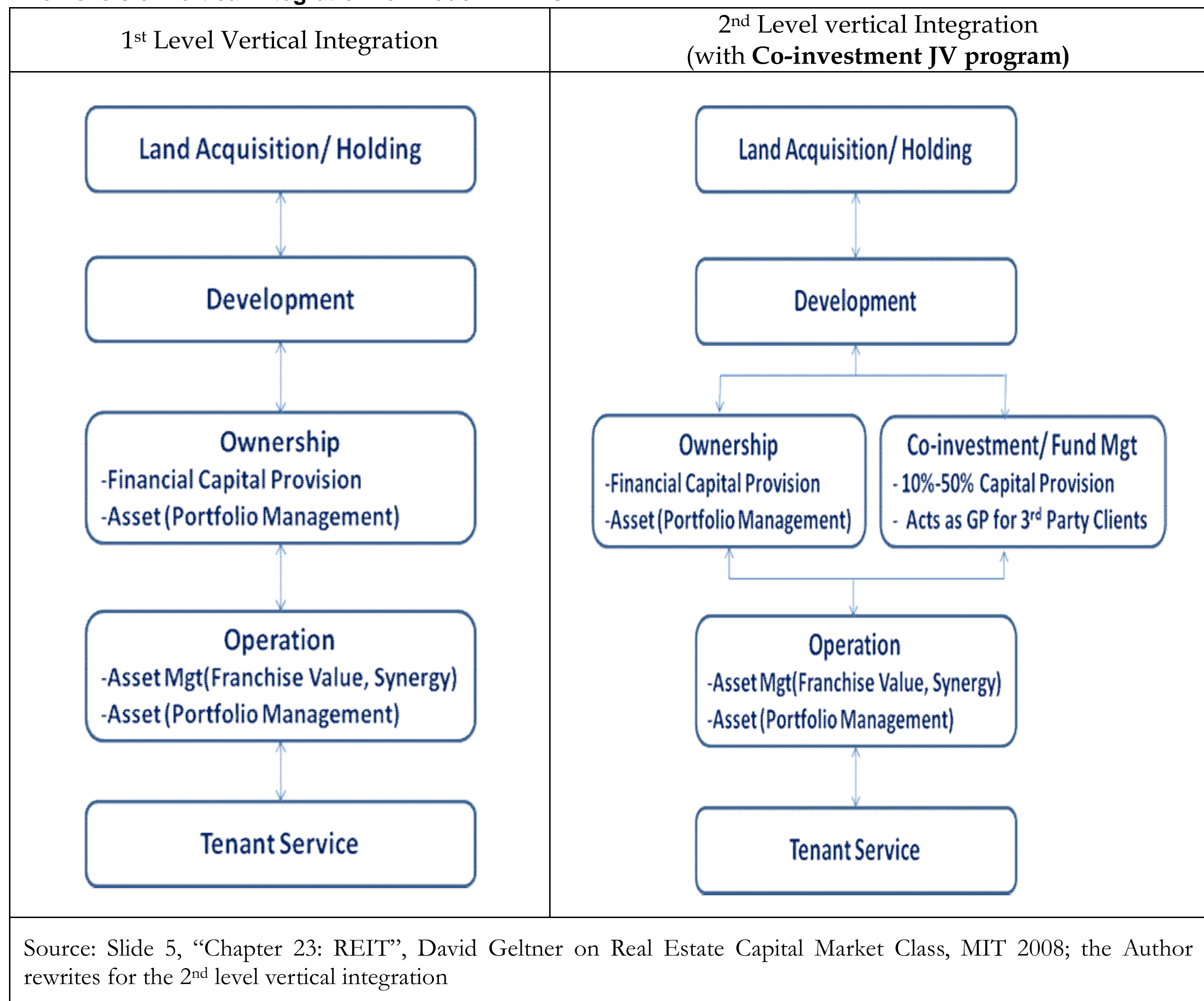
In my view, it is because the significant relaxations of REIT constraints (David Geltner et al. (2007)) that makes the two levels of vertical integration of modern REIT possible.

Major REIT Relaxation Summary

Year	Bill/ Act	Impact
1986	Tax Reform Act of 1986	REITs permitted to "self manage", no longer have to hire an external manager. This permits REITs to be much more *"active"*, integrated corporations, similar to typical industrial firms (only still subject to the four REIT tests on organization, asset, income-source and distribution tests).
1993	Revenue Reconciliation Act of 1993	REITs permitted to *"look through"* a pension fund to count it as a number of investors equal to its members (avoids *Five or Fewer Rule* for pension fund investment in REITs).
1999	REIT Modernization Act of 1999	REITs permitted to engage in non-REIT type activity via *Taxable REIT Subsidiaries* (TRS), in which the subsidiary is subject to corporate income tax (e.g., 3rd-party property management, 3rd-party fund management, brokerage, and property trading).

Source: "Chapter 23: REIT", David Geltner et al. (2007)

Two Levels of Vertical Integration for Modern REITs



Source: Slide 5, "Chapter 23: REIT", David Geltner on Real Estate Capital Market Class, MIT 2008; the Author rewrites for the 2nd level vertical integration

The right-hand diagram above includes the co-investment fund program, bringing the 2nd level flexibility of REIT's vertical integration.

Below table is an excerpt of the leading REIT companies (in various sectors) that have shown "vertical integration" capabilities in developing their business.

Company Description of Major Leading REITs in Each Sector

REIT	Sector	Mkt Cap ($Bn)	Company Description
ProLogis	Industrial	13.60	ProLogis is a self-administered and self-managed real estate investment trust (REIT) that operates a global network of real estate properties, primarily industrial distribution properties.
AMB	Industrial	4.82	AMB Property Corporation (AMB) is a self-administered and self-managed real estate investment trust. The Company's acquires, develops and operates industrial properties in distribution markets tied to global trade in the Americas, Europe and Asia.
Simon Property	Retail	19.72	Simon Property Group, Inc. (Simon Property) operates as a self-administered and self-managed real estate investment trust (REIT). Simon Property Group, L.P. (the Operating Partnership) is a majority owned partnership subsidiary of Simon Property that owns all of its real estate properties. The Company is engaged primarily in the ownership, development and management of retail real estate.
Kimco Realty	Retail	8.64	Kimco Realty Corporation (Kimco) is an owner and operator of neighborhood and community shopping centers. The Company is a self-administered real estate investment trust (REIT) and its management has owned and operated neighborhood and community shopping centers.
General Growth Properties	Retail	8.72	General Growth Properties, Inc. (GGP) is a self-administered and self-managed real estate investment trust (REIT). GGP, through its subsidiaries and affiliates, operates, develops, acquires and manages retail and other rental properties, primarily shopping centers, which are located primarily throughout the United States.
Vornado	Diversified	13.48	Vornado Realty Trust (Vornado) is an integrated real estate investment trust (REIT) and conducts its business through Vornado Realty L.P., a Delaware limited partnership (the Operating Partnership). Vornado is the sole general partner of, and owned approximately 90.1% of the common limited partnership interest in, the Operating Partnership at December 31, 2007.
Boston Properties	Office	10.65	Boston Properties, Inc. is a fully integrated self-administered and self-managed real estate investment trust (REIT), and an owner and developer of office properties in the United States.
AvalonBay Communities	Residential	6.69	AvalonBay Communities, Inc. is a real estate investment trust (REIT). The Company engages in the development, redevelopment, acquisition, ownership and operation of multifamily communities in high barrier-to-entry markets of the United States.
Host Hotels & Resorts	Hotel	6.74	Host Hotels & Resorts, Inc. operates as a self-managed and self-administered real estate investment trust (REIT). It owns properties and conducts operations through Host Hotels & Resorts, L.P., which is a limited partnership, of which Host Hotels & Resorts, Inc. is the sole general partner, and in which it holds approximately 97% of the partnership interests.
Public Storage	Self Storage	13.54	Public Storage, formerly Public Storage, Inc., is a fully integrated, self-administered and self-managed real estate investment trust (REIT) whose principal business activities include the acquisition, development, ownership and operation of self-storage facilities, which offer storage spaces for lease

Source: Priced on July 3, 2008. Google Finance for price information and company description.

7. Private Capital Summary for 7 Studied Public REITs

In this section, I summarized 7 studied REITs' private capital fund information from available public financial reports and analyst meeting materials.

First table is the private capital fund summary for 7 REITs. Table 2-8 covers the specific REIT's fund family. Kindly note that since the industry terminology is not yet standardized, I may use "private fund", "co-investment", "investment fund" or "JV partnership" to represent the actual terms specifically used in a REIT's financial statement.

1) Private Fund Business Strategy for 7 Studied Public REITs
2) Fund Summary of ProLogis
3) Key Co-investment Venture Summary of AMB
4) First Industrial's Co-investment JV Fund Summary
5) Investments in Real Estate Joint Ventures and Partnerships for Weingarten Realty
6) Kimco Realty Investment Fund Summary
7) Regency Centers Fund Summary
8) DDR Fund Summary

(1). Private Fund Business Strategy for 7 Studied Public REITs

Private Fund Business Strategy for 7 Studied Public REITs

Company	REIT Sector	Fund Strategy	Fund Style			1st Fund	# of Funds	Fund GAM ($ Mn)	Typical Ownership	Typical Leverage	Key Partners	Incl. Listing Vehicle	With Open-ended Commingle Fund
			Core	VA	Opp								
ProLogis	Industrial	Take-out vehicle and Int'l Expansion	X	X		1999	13	18,775	20%	50-60%	GIC Eaton Vance	ProLogis European	European Fund II (2007) N.A Industrial Fund (2006)
AMB Property	Industrial	Take-out vehicle and Int'l Expansion		X	X	1998	10	6,306	20%	55-75%	GIC	Nil	Europe Fund I (2007) Alliance Fund III (2004)
First Industrial	Industrial	Leverage operating platform - due to limited B/S	X	X	X	2003	7	2,585	10-15%	65-80%	CalSTRS	Nil	Nil
Weingarten Realty	Retail	Geographical Carve-out	X	X		1999	7	1,827	20-25%	below 50%	AEW TIAA-CREF	Nil	Nil
Kimco Realty	Retail	Acquisition of 3rd party REITs	X	X		1998	8	9,699	15-20%	55-75%	Prudential GE DRA UBS	Nil	Kimco Income Fund I (closed-end, 2004)
Regency Center	Retail	Take-out and acquisition vehicle	X	X		2000	10	4,664	16-25%	45-65%	Macquarie CalTRES	Macquarie CountryWide Trust	Regency Retail Partners (2007)
Developers Diversified	Retail	Take-out and acquisition vehicle	X	X		1998	9	11,222	10-20%	50-70%	Macquarie Prudential TIAA-CREF	Macquarie DDR Trust	DDR Domestic Retail Fund I (Closed-end, 2007)
								55,077					

Source: the Author

(2). ProLogis

Fund Summary of ProLogis as of 07YE

Fund Name	Since	Fund Life	Fund Style Strategy	Target	Targeted Leverage	Investors	PLD's ownership	Current Investment ($ Mn)	Leased %	Total GLA (Mn sf)
ProLogis European Properties Fund II	2007	open-end, infinite-life	VA	Take-out vehicle for ProLogis Europe and other properties from the acquisition of Parkridge Holdings' European industrial business	50-60%	28 investors; GIC Real Estate takes the lead	16.9%	1,464	99.7%	17.6
ProLogis Korea Properties Fund	2007	15 yrs	VA	Exclusive investment vehicle for newly developed properties in Korea and will also cover 3rd party acquisitions	50%	GIC Real Estate	20.0%	50	100.0%	1.1
ProLogis Mexico Industrial Fund	2007	10 yrs + 5 yr extension	VA	Exclusive investment vehicle for newly developed properties in Mexico	55-60%	9 institutional investors	20.0%	269	100.0%	4.3
ProLogis North American Industrial Fund II	2007	N/A	VA	Citigroup converts its bridge financing (US$ 550 Mn) stake for ProLogis' buyback of Macquarie ProLogis Trust into a 63% equity interest.	N/A	Citigroup	36.9%	2,147	95.8%	35.6
ProLogis North American Industrial Fund III	2007	N/A	VA	To acquire a portfolio of 122 industrial properties from a third party	N/A	an affiliate of Lehman Brothers, who provided interim debt financing to the property fund.	20.0%	1,400	99.5%	24.6
ProLogis North American Industrial Fund	2006	open-end; indefinite life	Core	- Exclusive investment vehicle for newly developed properties in US and Canada - Initial portfolio include 80% ownership interest in ProLogis North American Properties Funds II, III and IV from an affiliate of Arcapita Bank B.S.C.	55-60%	GIC Real Estate - the largest investor	23.2%	2,105	99.1%	39.5
ProLogis Japan Properties Fund II	2005	10 yrs	Core	Extension of Japan Fund I	55-60%	GIC Real Estate	20.0%	2,391	100.0%	16.3
ProLogis North American Properties Funds VI-X	2004	8-10 Yrs	VA	Joint acquisition with Eaton Vance Management on Keystone Property Trust, a public REIT	55-60%	Eaton Vance Management	20.0%	1,516	92.9%	25.4

ProLogis North American Property Fund XI	2004	10 yrs	N/A	N/A	N/A	N/A	20.0%	218	100.0%	4.1
ProLogis Japan Properties Fund I	2002	10 yrs	Core	To acquire newly developed properties in Tokyo, Osaka and Nagoya	55-60%	GIC Real Estate	20.0%	1,236	97.9%	7.1
ProLogis North American Properties Fund I	2000	7-10 yrs	Core	Take out recently developed at ProLogis' targeted distribution markets throughout the U.S.	50-60%	The State Teachers Retirement System of Ohio	41.3%	383	94.7%	9.4
ProLogis California LLC	1999	10 yrs	Core	Take out existing stabilized projects in California; mostly from the properties in newly acquired Meridian Property Trust in 4Q 1998.	50-60%	New York State Common Retirement Fund	50.0%	695	99.9%	14.2
ProLogis European Properties*	1999	Before IPO-10 yrs; After IPO-Indefinite	Core	Initially take-out vehicle for newly developed project in Europe. Current - Externally managed by ProLogis	50-60%	ABP, GIC Real Estate, TIAA, PGGM	24.9%	4,901	97.3%	56.4
								18,775		**255.6**

*Trades on Euronext Amsterdam under the ticker PEPR from April 25, 2006.; ProLogis European Properties also owns 30% ProLogis European Fund II.

Source: ProLogis Annual Report, 2000-2007, and 1Q 2008; the Author

(3). AMB

Key Co-investment Venture Summary of AMB

As of 07 YE

Co-investment Venture	Since	Fund Style Strategy	Principal Investors	Target	Country	Term	Incentive Distribution Frequency	Equity Fund Size ($ Mn)	AMB's equity ownership	AMB's Equity ($ Mn)	Target Leverage	GLA (000 sf)	Gross Asset Value ($ Mn)	Effective Leverage
AMB Europe Fund I, FCP-FIS	June 2007	VA	Various	Take-out vehicle	Europe	Open end	3 years	553	21%	116	60%	8,323	1,099	60.7%
AMB DFS Fund I, LLC	Oct. 2006	Opp	GE Real Estate	To build and sell properties	US [3]	Perpetual	Upon project sales	416	15%	62	n.a	1,433	144	0.0%
AMB Japan Fund I, L.P.	June 2005	VA	13 institutional investors	Take-out vehicle	Japan	June 2013 (8 yrs); extendable 2 years	At dissolution	622	20%	124	75%	5,392	927	71.9%
AMB-SGP Mexico, L.L.C	Dec. 2004	VA	GIC Real Estate	To acquire industrial properties	Mexico	Dec. 2011 (7 yrs); extendable 7 years	7 years	250	20%	50	65%	4,904	262	66.1%
AMB Institutional Alliance Fund III, L.P.	Oct. 2004	VA	Various	Take-out vehicle	US	Open end	3 years	1,006	18%	181	60%	21,382	1,975	53.1%
AMB-AMS , L.P.	June 2004	VA	MT, SPW and TNO [1]	N/A	US	Dec. 2012 (8.5 yrs) ; extendable 4 years	At dissolution	70	39%	27	55%	2,172	156	53.1%
AMB Institutional Alliance Fund II, L.P.	June 2001	VA	AMB Institutional Alliance REIT II, Inc.[2]	Take-out 80% Development 20%	US	Dec. 2014 (estimated)	At dissolution	195	20%	39	60%	8,006	543	55.0%
AMB-SGP , L.P.	March 2001	VA	GIC Real Estate	To acquire industrial properties	US	March 2011 (10 yrs); extendable 10 years	10 years	150	50%	75	55%	8,288	455	76.2%
AMB Partners II, L.P.	Feb. 2001	VA	San Francisco Employees' Retirement	To acquire industrial properties	US	Perpetual	3 years	100	20%	20	60%	9,915	691	55.7%
AMB/Erie, L.P.	March 1998	VA	Erie Insurance Company	To acquire industrial properties	US	Perpetual	3 years	28	50%	14	75%	822	54	37.3%
								3,391	**20.9%**	**710**		70,636	**6,306**	**58.5%**

Source: 1Q 2008 AMB Financial Statement; 1998-2007 Annual Reports.

(1). Three Dutch pension funds, advised by Mn Services NV.

(2). Comprised of 14 institutional investors as stockholders and one third-party limited partner as of December 31, 2007.

(3). Target US Market, other than those AMB identifies as its target markets.

(4). First Industrial

First Industrial's Co-investment JV Fund Summary

Co-investment Venture	Since	Total Equity in JV Fund ($ Mn)	FR's equity ownership	FR's Equity Investment (US$ Mn)	Fund Style Strategy	Geographic Focus	Principal Investors	# of Properties	GLA (Mn sf)	Gross Investment in RE ($ Mn)	Total JV Debt ($ Mn)	Leverage Ratio
2008 European Land/Development JV *	2007	165	10.0%	16.5	Opp	Europe	CalSTRS	0	0.00	475	309	65.0%
2008 Canadian Land/ Development JV *	2007	100	10.0%	10.0	Opp	Canadian	CalSTRS	0	0.00	285	185	65.0%
2006 Land/ Development JV	2006	87	10.0%	8.7	Opp	US	CalSTRS	n.a	0.00	278	191	68.6%
2006 Net Lease Co-investment	2006	96	15.0%	14.4	Core	US	N.A	12	5.00	281	185	65.9%
2005 Core JV	2005	61	10.0%	6.1	Core	US	CalSTRS	66	4.80	286	225	78.7%
2005 Development/ Repositioning JV	2005	243	10.0%	24.3	Opp	US	CalSTRS	24	5.00	732	489	66.7%
2003 Net Lease JV	2003	72	15.0%	10.82	Core	US	UBS	11	5.10	247	175	70.8%
		825	11.0%	90.9				113	19.90	2,585	1,759	68.0%

* Summary term sheets from First Industrial's corporate announcement on January 8, 2008

Source: First Industrial 4Q 2007 Supplement Financials, page 40.

(5). Weingarten Realty Investors

Investments in Real Estate Joint Ventures and Partnerships for Weingarten Realty As of 07 YE

Joint Venture Partner	Since	Fund Style Strategy	Sector	Target	Geographical Focus	Fund Size ($ Mn)	Ownership Interest	# of Properties	Total GLA ('000 sf)	Total Assets ($ Mn)	Total Debt ($ Mn)	Leverage ratio	Avg Interest Rate	Avg Remaining Term (yrs)
BIT Retail	3Q 2007	Core	Retail	Taking-out existing 3 property portfolio	Atlanta, Florida and Texas	150.0	20.0%	3	715	-	-	n.a	-	-
BIT Investment Thirty-Six, LP	3Q 2007	VA	Industrial	Program Acquisition	National	500 (initial seed of $123 Mn)	20.0%	12	4,068	239	25	10.5%	6.4%	3.8
TIAA Florida Retail LLC	4Q 2006	VA	Retail	Specified portfolio acquisition	Florida	325.0	20.0%	7	1,261	$345	$ -	n.a	-	-
AEW SRP, LLC	4Q 2006	VA	Retail	Specified portfolio recap	Texas	229.0	25.0%	9	895	195	105	54.1%	5.7%	8.0
AEW - Institutional Client	4Q 2006	VA	Retail	Specified portfolio acquisition	Pacific Northwest	129.0	20.0%	6	523	138	71	51.1%	5.7%	6.2
Eagle AN, LP	4Q 1999	Core	Industrial	Take-out existing portfolio	Texas	n.a	20.0%	7	2,050	52	36	70.0%	8.1%	2.7
Collins *	n.a	n.a	n.a	n.a	n.a	n.a	50.0%	8	1,095	139	12	8.8%	6.0%	13.5
Other	n.a	n.a	n.a	n.a	n.a	n.a	44.4%	21	2,959	720	129	17.9%	5.8%	5.7
							26.5%	73	13,566	$1,827	$378	20.7%	6.1%	6.4%

Source: 4Q 2007 Supplement Financial, page 11-12 ; NAREIT Investment Forum Presentation Slides on June 4, 2008.

RETAIL

BIT Retail Retail joint venture with PNC Realty Investors, Inc. (a member of PNC Financial Services Inc.) and its client, the AFL-CIO Building Investment Trust

TIAA Florida Retail LLC Joint venture with an institutional partner, TIAA-CREF Global Real Estate.

AEW SPR, LLC Retail joint venture with an institutional partner through AEW Capital Management

AEW - Institutional Client Joint venture with an institutional partner through AEW Capital Management

Collins Primarily a development joint venture in the Texas Rio Grande valley

INDUSTRIAL

BIT Investment Thirty-Six, LP Industrial joint venture with Mercantile Real Estate Advisors and its client, the AFL-CIO Building Investment Trust

Eagle AN, LP Industrial joint venture with American National Insurance Company

(6). Kimco Realty Corporation

Kimco Realty Investment Fund Summary

As of 07 YE

Co-investment Venture	Since	Fund Style Strategy	Principal Venture Investors	Target	Kimco's Equity ownership	Total Equity in JV Fund ($ Mn)	# of Property	GLA (Mn sf)	Gross Investment in RE ($ Mn)	Non-recourse Mortgage Payable ($ Mn)	Recourse Notes Payable ($ Mn)	Total JV Debt ($ Mn)	Avg Interest Rate	Weighted Avg Term (months)	Leverage Ratio
SEB Immobilien	2007	Core	SEB Immobilien-Investment GmbH	A new JV between Kimco and SEB GmbH to purchase 9 shopping centers from the Kimco Retail Opportunity Portfolio (KROP).	15%	82	10	1.33	276	194	0.0	194	5.67%	104.5	70.2%
KimPru	2006	VA	3 separate accounts managed by Prudential Real Estate Investors	Portfolio in the merger between Kimco and Pan Pacific Retail Properties Inc.	15%	1,683	126	19.66	4,471	2,086	702.5	2,788	5.11%	67.4	62.4%
KUBS	2005	Core	UBS Wealth Mgt North American Property Fund Ltd	To acquire retail properties primarily financed through the use of individual non-recourse mortgages in North American	18%	597	43	6.17	1,367	770	0.0	770	5.70%	86.3	56.3%
Kimco Income Fund I	2004	VA	Comingled funds from insurance cos.	Mostly transfer the newly acquired portfolio of Mid-Atlantic Realty Trust (MART) in 2003 into KIF .	15%	103	12	1.52	277	174	0.0	174	5.47%	81.8	62.8%
PL Retail LLC	2004	VA	DRA Advisors	a joint venture formed to acquire Price Legacy Corp.	15%	260	22	5.58	943	658	24.6	683	5.64%	23.0	72.4%

Other institutional programs	2004	N/A	Other institutional programs include GE Pension Trust, DRA, La Salle Investors and Crow	not applicable	16.32%	257	61	3.56	646	389	0.0	389	8.67%	78.6	60.2%
Kimco Real Estate Portfolio (KROP)	2002	VA	GE Capital Real Estate	- To acquire established retail properties in the U.S. - During Aug 2006, Kimco and GE agreed to market for sale the property portfolio.	19.28%	38	6	1.13	151	113	0.0	113	5.91%	61.3	74.9%
Kimco Income REIT	1998	VA	New York State Common Retirement Fund	To acquire retail properties across U.S	45%	549	63	13.12	1,568	1,019	0.0	1,019	6.96%	41.4	65.0%
Source: Kimco 4Q 2007 Supplement Financials, page 39 ; 2007 annual report, page 54-59.					20.2%	3,570	343	52.07	9,699	5,402	727	6,130	5.82%	62.7	63.2%

(7).Regency Centers

Regency Centers Fund Summary

As of 07YE

Fund Name/ JV Partner	Since	Fund Type	Fund Style Strategy	Target	Total Planned Asset ($ Mn)	RC's Ownership	# of Funds	JV Code	# of Properties	Total GLA ('000 sf)	Total Assets ($ Mn)	Total Debt ($ Mn)	Effective Leverage
Regency Retail Partners	2007	Open-ended, indefinite life, various investors	Core (60% leverage)	The Fund has the right to acquire all future Regency-developed large format community centers, upon stabilization.	1,411.4	20%	1	JV-RRP	7	821	209.0	105.2	50.3%
Macquarie CountryWide-DE SCO	2007	Australia listed trust	VA	To acquire Desco's 32 properties of retail portfolios (mostly anchored by Schnuck grocery stores) in St. Louis, Illinois, Indiana and Tennessee. Desco is the development arm of Schnuck Markets Inc.	430.0	16.40%	1	JV-D	32	2,990	419.9	211.1	50.3%
CalSTRS	2005	Single investor JV	Core	Take-out vehicle for Regency's newly stabilized development projects	226.7	25%	1	JV-RC	8	826	167.3	86.2	51.6%
Macquarie CountryWide Trust	2004, 2003, 2002, 2001	Australia listed trust	Core	Mostly take-out vehicle for Regency's newly developed grocery-anchored shopping center	3,566.0	25%	4	JV-M JV-MD JV-M2 JV-M3	138	16,235	3,219.5	1,982.4	61.6%
Oregon Public Employees Retirement Fund	2000	Single investor JV	Core	- Initially two parties contribute existing neighborhood centers into JV - Continue to acquire shopping centers at Regency's Core Markets	905.4	20%-30%	3	JV-C JV-C2 JV-CCV	28	3,923	648.2	301.7	46.5%
Source: 4Q 2007 Financial Supplement, page 18; 2007 Annual report, page 44-46.					6,540	16%-30%	10		213	24,795	4,664	2,687	57.6%

(8). Developers Diversified Realty

DDR Fund Summary *As of 07YE*

Fund Name	Since	Fund Style Strategy	Target	Fund Life	Partner	DDR Ownership %	Gross Asset ($ Mn)	Partner's Share of Gross Asset ($ Mn)	Leverage
DDRTC Core Retail Fund	2007	VA	For the $3.2 Bn company acquisition of Inland Retail REIT	Indefinite	TIAA-CREF	15%	$3,020	$2,567	60%
Inland-SAU Retail Fund	2007	VA	Joint venture with the State of Utah assumed through Inland REIT acquisition.	Fixed-Term	State of Utah	20%	324	259	66%
DDR Domestic Retail Fund I	2007	Core	Act as partial exit for previous JV with Kuwait Financial Center and take-out vehicle for DDR	Indefinite	Various	20%	1,500	1,200	65%
TRT DDR Venture I	2007	Core	Take out 3 newly completed assets	Indefinite	Dividend Capital Total Realty Trust	10%	162	145	68%
Coventry II	2006	VA	Target external value creation opportunities in re-development, re-leasing, re-positioning, or ground-up development	8 yrs	Coventry Real Estate Fund II	20%	1,807	1,446	28%
DDR Markaz II	2004	Core	Take out DDR's 13 stabilized properties.	Fixed-Term	Kuwait Financial Centre S.A.K. and Bank of Bahrain and Kuwait B.S.C.	20%	311	248	48%
Macquarie DDR Trust	2003	Core	Take out DDR's existing 11 community shopping centers across 8 states at initial yield at 8.1%	Indefinite (Australia Listed)	Macquarie Bank	14.50%	2,718	2,183	51%
Coventry I (Retail Value Investment Program)	2000	VA	Focus on the acquisition, redevelopment and repositioning of retail properties and portfolio.	Fixed-Term	- 5 separate accounts advised by Prudential Real Estate Investors - Coventry Real Estate Partners acts as GP	20-25%	405	313	38%
DDRA Community Centers Five. L.P	1998	Core	DDR contributes 6 existing properties valued at $238 Mn at a 9.325% cap.	Fixed-Term	DRA Advisors	50%	375	188	65%
Other	-	-	Mostly 50-50% JV with local developers	Fixed-Term	Various	Various, mostly 50%	601	391	35%
						20.3%	**$11,222**	**$8,940**	**52%**

Coventry Real Estate Partner, formed in 1998, is a JV between Prudential Real Estate Investors and Developers Diversified.

Source: DDR Corporate Presentation in May 2008; Macquare DDR Trust Product Disclosure Statement, Oct. 2003; Real Estate Alert on Coventry Fund, May 22, 2002

8. 2007 New Separate Accounts/ JV Partnership from Pension Fund

New Separate Accounts/Joint Venture Partnerships in 2007 As of 3/31/2008

Pension Fund	Consultant	Investment Manager	Fund Name	Strategy	Amount ($ Mn)
California State Teachers	Townsend	American Value Partners	AVP M Street Investors	Value-added	$43
		BlackRock Realty Advisors	Peter Cooper Village	Value-added	100
		Brookfield Properties	BrookCal	Core-plus	200
		Campus Realty	CampusCal	Value-added	100
		Elm Street/JAH Capital Management	JV of Elm Street/JAH Capital Management	Value-added	112
		Fairfield Residential	Fairfield California Housing	Value-added	350
		First Industrial Realty	**First Industrial Canada**	**Value-added**	**100**
		First Industrial Realty	**First Industrial Europe**	**High-yield debt**	**165**
		Fortress Group	Drawbridge Special Opportunity	Value-added	100
		ING Clarion Partners	INGCal Tactical	Core	300
		Lillibridge Healthcare	LilliCal	Value-added	43
		Lowe Enterprises Investment	La Solana Co-investment	Value-added	18
		Morgan Stanley	MS Resort Co-investment A	Value-added	300
		PCCP	PacifiCal 3	Value-added	200
		PCCP	PacifiCal Land	Core-plus	300
		Sealy & Co.	SeaCal	Core-plus	100
		University Communities	UCal	Core-plus	75
		Urban Retail Properties	UrbanCal	Value-added	200
		Waterton Associates	WRPF 9 Presidential Towers		125
Calpers	Partners Group	Hines	Hines Brazil Fund 2	Opportunity	200
		Hines	Hines Mexico Fund 2	Opportunity	100
		Xander Group	India Real Estate Private Equity Investment	Opportunity	175
Florida State Board	Townsend	BlackRock Realty Advisors	Peter Cooper Village	Value-added	250
Michigan Retirement	RV Kuhns	City Investment Fund	City Lights Investment	Core-plus	132
		MayfieldGentry Realty Advisors	Venture Center LLC	Core	45
New Jersey State Investment	Townsend	General Motors Investment Management	General Motors Investment Management	Opportunity	150
New York Common Fund	Townsend	Kimex	Kimex Land Fund 1	Opportunity	108
		Loews Hotel	Atlanta Hotel JV	Opportunity	126
		ORG Real Property	Lake Hempstead Fund	Opportunity	100
		ORG Real Property	Lake Success Fund	Opportunity	175
		Townsend Group	Cayuga Lake Fund	Opportunity	794
		Townsend Group	Seneca Land Fund	Opportunity	250
New York State Teachers	Callan	Bozzuto Development	Multifamily JV	Opportunity	50
Ohio State Teachers	Russell	Exeter Realty	Pioneer Property Partners 3	Core	48
		Regency Centers	**Regency Retail Partners**	**Core**	**100**
Oregon Public Employees	Partners Group	Guggenheim Partners	Guggenheim Partners	Core-plus	300
Wisconsin Investment	Courtland	Callahan Capital Partners	Denver Office Portfolio	Value-added	125
		J.P. Morgan, IDI	SWIB Canadian Investors	Value-added	25
		RREEF	Southern California Business Park	Value-added	93
Commitments of $5 million or more by Top 50 public pension systems				Sum	**$6,277**
Source: RE Alert, March 31, 2008				Average Size	**$161**

9. 2007 New Commitments to Commingled Funds from Pension Funds

Very few REIT-sponsored commingled funds has been noticed in the following statistics compiled by Real Estate Alert (March 31, 2008). Only DDR's Retail Fund was found to be invested $200 Mn by Ohio State Teachers. Mostly of pension fund's investment in commingled fund in 2007 went to real estate investment managers, such as ING Clarion, Blackstone Group, CBRE Investors, and Principal Real Estate Investors.

2007 New Commitments to Commingled Funds

Pension Fund	Pension Fund Consultant	Investment Manager	Fund Name	Strategy	Amount ($ Mn)
Alaska Public Employees & Teachers	Townsend	ING Clarion Capital	ING Clarion Debt Opportunity Fund 2	High-yield debt	$50
		Rothschild Realty	Five Arrows Realty Securities Fund 5	Core-plus	30
Arizona State Retirement	Townsend	Blackstone Group	Real Estate Partners 6	Opportunity	45
		CIM Group	CIM Real Estate Fund 3	Opportunity	50
		Tishman Speyer	Real Estate Venture 7	Value-added	50
Arkansas Teachers	Ennis Knupp	Fidelity Investments	Real Estate Growth Fund 3	Value-added	30
California State Teachers	Townsend	Canyon Capital Realty Advisors	Canyon Johnson Urban Fund 3	Value-added	225
		Canyon Capital Realty Advisors	Canyon Value Opportunity Fund	High-yield debt	50
		CB Richard Ellis Investors	Strategic Partners Asia Fund 2	Value-added	125
		CB Richard Ellis Investors	Strategic Partners Opportunity Fund 5	Opportunity	100
		CB Richard Ellis Investors	Strategic Partners Value Fund 5	Core-plus	100
		Centerline	High Yield CMBS Fund 3	High-yield debt	200
		Fairfield Residential	Fairfield Strategic Apartment Fund 3	Value-added	60
		Fortress Investment	Florida Coinvestment Fund	Opportunity	100
		IL&FS Investment Managers	IL&FS India Realty Fund 2	Opportunity	50
		JER Partners	JER Europe Fund 3	Value-added	200
		Lowe Enterprises Investment	Resort Finance Investment Partners	High-yield debt	50
		Macquarie Global Property Advisors	MGP Asia Fund 3	Opportunity	400
		Macquarie Global Property Advisors	MGP Europe Fund 3	Opportunity	150
		Morgan Stanley	5 U.S. Co-Investment	Value-added	300
		Morgan Stanley	6 International	Value-added	400
		Morgan Stanley	Special Situations Fund 3	Value-added	200
		RLJ Capital Partners	RLJ Real Estate Fund 3	Value-added	200
		Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	200
		Stronghold Investments	Niam Nordic Fund 4	Value-added	135
		Thomas Properties	Thomas High Performance Green	Core-plus	100
Calpers	Partners Group	ARA Group	ARA Asia Dragon Fund	Opportunity	500
		Canyon Capital Realty Advisors	Canyon Johnson Urban Fund 3	Value-added	225
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	100
		Hines	European Development 2	Value-added	190
		IL&FS Investment Managers	IL&FS India Realty Fund 2	Opportunity	200
		JER Partners	U.S. Debt Co-investment Vehicle	High-yield debt	200
		LaSalle Investment Management	Asia Opportunity Fund 3	Opportunity	200
		Principal Real Estate Investors	Mortgage Value Investors	High-yield debt	100
		RLJ Capital Partners	RLJ Real Estate Fund 3	Value-added	200

		Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	250
		Stronghold Investments	Niam Nordic Fund 4	Value-added	124
		Xander Group	Xander JV Fund 1	Opportunity	25
Chicago Public School Teachers	Townsend	Morgan Stanley	Mezzanine Partners	High-yield debt	35
		Walton Street Capital	Walton Street Real Estate Fund 6	Opportunity	25
Colorado Public Employees None	None	Blackstone Group	Real Estate Partners 6	Opportunity	50
		Miller Global Properties	Miller Global Fund 6	Value-added	50
		Morgan Stanley	6 International	Value-added	50
Florida State Board	Townsend	Beacon Capital Partners	Strategic Partners 5	Value-added	100
		BlackRock Realty Advisors	BlackRock Retail Opportunity Fund	Value-added	100
		Blackstone Group	Real Estate Partners 6	Opportunity	200
		Hines	U.S. Office Value-Added 2	Value-added	150
		J.P. Morgan	Special Situations Property Fund	Value-added	150
		Principal Real Estate Investors	Enhanced Property Fund	Core-plus	100
		Prudential Real Estate Investors	PRISA 2	Core-plus	145
		Prudential Real Estate Investors	PRISA 3	Core-plus	150
		Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	100
Illinois Municipal Ennis Knupp	Ennis Knupp	BlackRock Realty Advisors	Granite Property Fund	Core	100
		Morgan Stanley	Prime Property Fund	Core	100
Illinois State Board	Townsend	Blackstone Group	Real Estate Partners 6	Opportunity	30
		Colony Capital	Colony Investors 8	Opportunity	30
		Walton Street Capital	Walton Street Real Estate Fund 6	Opportunity	30
Illinois Teachers	Callan	Beacon Capital Partners	Strategic Partners 5	Value-added	100
		Blackstone Group	Real Estate Partners 6	Opportunity	50
		Carlyle Group	Carlyle Europe Real Estate Partners 3	Opportunity	75
		CB Richard Ellis Investors	Strategic Partners Europe Fund 3	Value-added	50
		CB Richard Ellis Investors	Strategic Partners U.K. Fund 3	Value-added	50
		Cornerstone Real Estate Advisors	Hotel Income & Equity Fund 2	Value-added	50
		ING Clarion Partners	Lion Industrial Trust	Core	100
		LaSalle Investment Management	Asia Opportunity Fund 3	Opportunity	75
		Macquarie Global Property Advisors	MGP Asia Fund 3	Opportunity	100
		RLJ Capital Partners	RLJ Real Estate Fund 3	Value-added	50
		Walton Street Capital	Walton Street Real Estate Fund 6	Opportunity	100
Kansas Public Employees	Partners Group	JER Partners	JER Europe Fund 3	Value-added	35
Los Angeles City Employees	Courtland	American CityVista	CityView LA Urban Land Fund 1	Opportunity	30
		CB Richard Ellis Investors	Strategic Partners Opportunity Fund 5	Opportunity	30
		CB Richard Ellis Investors	Strategic Partners Value Fund 5	Core-plus	30
		CIM Group	CIM Real Estate Fund 3	Opportunity	15
		Colony Capital	Colony Investors 8	Opportunity	30
		DRA Advisors	Growth & Income 6	Value-added	25
		ING Clarion Capital	ING Clarion Debt Opportunity Fund 2	High-yield debt	25
		Urdang & Associates	Urdang Value-Added Fund 2	Value-added	20
		Valencia Capital Management	Next Block Medical Fund 1	Value-added	10
Los Angeles County Employees	Courtland	American CityVista	CityView LA Urban Land Fund 1	Opportunity	50
		Capmark	Capmark U.K. Realty Partners	Value-added	30
		Capri Capital	Capri Urban Investors	Value-added	150
		Carlyle Group	Carlyle Europe Real Estate Partners 3	Opportunity	25
		CB Richard Ellis Investors	Strategic Partners Europe Fund 3	Value-added	20
		CB Richard Ellis Investors	Strategic Partners U.K. Fund 3	Value-added	20
		LaSalle Investment Management	Medical Office Fund 2	Core-plus	25

		New City	New City Asia Partners	Opportunity	25
Los Angeles Fire & Police	Townsend	AEW Capital Management	AEW Value Investors 2	Core-plus	30
		American CityVista	CityView LA Urban Land Fund 1	Opportunity	15
		BlackRock Realty Advisors	BlackRock Retail Opportunity Fund	Value-added	30
		Capri Capital	Capri Urban Investors	Value-added	30
		CB Richard Ellis Investors	Strategic Partners U.K. Fund 3	Value-added	30
		CIM Group	CIM Real Estate Fund 3	Opportunity	30
		Forum Partners	Forum Asian Realty Income Fund 2	Value-added	30
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	30
		Heitman	Heitman Value Partners 2	Core-plus	30
		Praedium Group	Praedium Fund 7	Value-added	30
		Prudential Real Estate Investors	PRISA 2	Core-plus	30
		Rothschild Realty	Five Arrows Realty Securities Fund 5	Core-plus	30
		Urdang & Associates	Urdang Value-Added Fund 2	Value-added	50
Louisiana Teachers	None	Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	75
Maryland State Retirement	Partners Group	CB Richard Ellis Investors	Strategic Partners Europe Fund 3	Value-added	56
		CB Richard Ellis Investors	Strategic Partners U.K. Fund 3	Value-added	50
		JER Partners	JER Europe Fund 3	Value-added	45
		JER Partners	Real Estate Partners 4	Opportunity	45
		Prudential Real Estate Investors	PRISA 2	Core-plus	81
		Secured Capital Japan	Real Estate Partners Asia	Opportunity	65
Michigan Retirement RV Kuhns	RV Kuhns	Beacon Capital Partners	Strategic Partners 5	Value-added	50
		BlackRock Realty Advisors	BlackRock Retail Opportunity Fund	Value-added	75
		Blackstone Group	Real Estate Partners 6	Opportunity	75
		Gateway Capital	Gateway Capital Real Estate Fund 2	Opportunity	75
		L&B Realty Advisors	L&B Medical Properties Fund 2	Value-added	20
		LaSalle Investment Management	Asia Opportunity Fund 3	Opportunity	100
		Morgan Stanley	6 International	Value-added	150
		Morgan Stanley	Mezzanine Partners	High-yield debt	75
Minnesota State Board None	None	Blackstone Group	Real Estate Partners 6	Opportunity	100
		Lehman Brothers	Real Estate Partners 3	Opportunity	150
Missouri Public School Employees	Townsend	AEW Capital Management	AEW Core Property Trust	Core	75
		Blackstone Group	Real Estate Partners 6	Opportunity	50
		Carlyle Group	Europe Real Estate Partners 3	Opportunity	75
		CB Richard Ellis Investors	Strategic Partners Value Fund 5	Core-plus	75
		CIM Group	CIM Real Estate Fund 3	Opportunity	50
		Colony Capital	Colony Investors 8	Opportunity	50
		Forum Partners	Forum Asian Realty Income Fund 2	Value-added	50
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	50
		LaSalle Investment Management	Japan Logistics Fund 2	Opportunity	26
		LaSalle Investment Management	Asia Opportunity Fund 3	Opportunity	75
		LaSalle Investment Management	Income & Growth 5	Value-added	75
		Lone Star Partners 6	Lone Star Partners 6	High-yield debt	56
		Lone Star Partners	Lone Star Real Estate Fund	Opportunity	19
		Noble Investments	Noble Hospitality Fund	Value-added	50
		Principal Real Estate Investors	Enhanced Property Fund	Core-plus	75
		Prudential Real Estate Investors	PRISA 2	Core-plus	71
New Jersey State Investment	Townsend	AEW Capital Management	AEW Core Property Trust	Core	100
		ARA Group	ARA Asia Dragon Fund	Opportunity	100
		Blackstone Group	Real Estate Partners 6	Opportunity	100
		Capmark	Capmark Commercial Realty Partners 3	Value-added	50

		Capri Capital	Capri Urban Investors	Value-added	50
		CB Richard Ellis Investors	Strategic Partners Europe Fund 3	Value-added	59
		CB Richard Ellis Investors	Strategic Partners Opportunity Fund 5	Opportunity	75
		Five Mile Capital Partners	Structured Income 2	High-yield debt	100
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	100
		L&B Realty Advisors	L&B Diversified Strategy Fund	Core-plus	50
		LaSalle Investment Management	Asia Opportunity Fund 3	Opportunity	100
		RLJ Capital Partners	RLJ Real Estate Fund 3	Value-added	75
		Tucker Development	Tucker Development & Acquisition	Value-added	50
		Walton Street Capital	Walton Street Real Estate Fund 6	Opportunity	50
		Walton Street Capital	Real Estate Sidecar Fund 6	Opportunity	25
New Mexico Permanent Funds Courtland	Courtland	Angelo, Gordon & Co.	AG Realty Fund 7	Opportunity	75
		Place Properties/Blue Vista Capital	Student Housing Fund	Value-added	50
New York City Retirement	Townsend	American Value Partners 1	American Value Partners Fund 1	Fund of Funds	100
		Blackstone Group	Real Estate Partners 6	Opportunity	210
		Carlyle Group	Carlyle Realty Partners 5	Opportunity	60
		Colony Capital	Colony Investors 8	Opportunity	40
		Heitman	Heitman America Real Estate Trust	Core	200
		Phoenix Realty	Metropolitan Workforce Housing Fund	Value-added	50
		Prudential Real Estate Investors	PRISA 2	Core-plus	285
		Westbrook Partners	Westbrook Real Estate Partners 7	Opportunity	50
New York Common Fund	Townsend	Apollo Real Estate Advisors	European Real Estate Fund 3	Value-added	150
		Beacon Capital Partners	Strategic Partners 5	Value-added	400
		Blackstone Group	Real Estate Partners 6	Opportunity	800
		Carlyle Group	Carlyle Europe Real Estate Partners 3	Opportunity	249
		CB Richard Ellis Investors	Strategic Partners Europe Fund 3	Value-added	121
		CIM Group	CIM Real Estate Fund 3	Opportunity	250
		Grove International Partners	Redwood Grove International	Opportunity	200
		Morgan Stanley	6 International	Value-added	500
		Noble Investments	Noble Hospitality Fund	Value-added	90
		Phoenix Realty	Genesis Workforce Housing 2	Value-added	25
		Phoenix Realty	Metropolitan Workforce Housing Fund	Value-added	75
		Praedium Group	Praedium Fund 7	Value-added	125
		Stockbridge Capital Partners	2Real Estate Fund 3	Value-added	400
New York State Teachers	Callan	Angelo, Gordon & Co.	AG Realty Fund 7	Opportunity	50
		Blackstone Group	Real Estate Partners 6	Opportunity	100
		CB Richard Ellis Investors	Strategic Partners Europe Fund 3	Value-added	52
		CB Richard Ellis Investors	Strategic Partners U.K. Fund 3	Value-added	55
		CB Richard Ellis Investors	Strategic Partners Opportunity Fund 5	Opportunity	50
		CB Richard Ellis Investors	Strategic Partners Value Fund 5	Core-plus	50
		Cerberus Real Estate Capital	Blackacre Institutional Partners 2	High-yield debt	50
		Credit Suisse	DLJ Real Estate Capital Partners 4	Value-added	75
		Exeter Property	Exeter Industrial Value Fund	Value-added	50
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	75
		ING Clarion Capital	ING Clarion Debt Opportunity Fund 2	High-yield debt	100
		ING Clarion Partners	ING Clarion Development Ventures 3	Value-added	50
		LaSalle Investment Management	Asia Opportunity Fund 3	Opportunity	50
		Macquarie Global Property Advisors	MGP Asia Fund 3	Opportunity	75
		Macquarie Global Property Advisors	MGP Europe Fund 3	Opportunity	50
		O'Connor Capital Partners	North American Property Partners 2	Opportunity	50

		Penwood Real Estate	California Select Industrial Partners 2	Value-added	25
		Perella Weinberg	Real Estate Fund 1	Opportunity	70
		Prudential Real Estate Investors	PLA Residential Fund 3	Opportunity	50
		Prudential Real Estate Investors	PRISA 2	Core-plus	50
		Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	110
		Walton Street Capital	Walton Street Real Estate Fund 6	Opportunity	75
Ohio Police & Fire	Townsend	Blackstone Group	Real Estate Partners 6	Opportunity	20
Ohio School Employees	None	CB Richard Ellis Investors	Strategic Partners Opportunity Fund 5	Opportunity	25
		CB Richard Ellis Investors	Strategic Partners Value Fund 5	Core-plus	25
		Fillmore Capital Partners	Fillmore West Fund	High-yield debt	50
		Rockspring Property	TransEuropean Property 4 Fund	Value-added	30
Ohio State Teachers	Russel	Black Creek Group	Mexico Residential Fund	Opportunity	75
		BlackRock Realty Advisors	Granite Property Fund	Core	150
		Developers Diversified Realty	DDR Domestic Retail Fund 1	Core-plus	200
		LaSalle Investment Management	Japan Logistics Fund 2	Opportunity	65
		LaSalle Investment Management	Asia Opportunity Fund 3	Opportunity	75
Orange County Employees	Callan	CB Richard Ellis Investors	Strategic Partners Value Fund 5	Core-plus	41
Oregon Public Employees Partners Group	Partners Group	Alpha Investment Partners	Alpha Asia Macro Trends Fund	Value-added	100
		Blackstone Group	Real Estate Partners 6	Opportunity	200
		Canyon Capital Realty Advisors	Canyon Johnson Urban Fund 3	Value-added	50
		Fidelity Investments	Real Estate Opportunistic Income Fund	High-yield debt	100
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	300
		Hines	U.S. Office Value-Added	Value-added	100
		IL&FS Investment Managers	IL&FS India Realty Fund 2	Opportunity	100
		JER Partners	JER Europe Fund 3	Value-added	100
		Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	150
		Western National Group	Realty Advisors Fund 2	Core-plus	100
Pennsylvania Public School Employees	Courtland	Apollo Real Estate Advisors	European Real Estate Fund 3	Value-added	141
		Apollo Real Estate Advisors	Real Estate Finance Corp.	High-yield debt	150
		Beacon Capital Partners	Strategic Partners 5	Value-added	400
		Blackstone Group	Real Estate Partners 6	Opportunity	400
		Carlyle Group	Carlyle Europe Real Estate Partners 3	Opportunity	335
		Carlyle Group	Carlyle Realty Partners 5	Opportunity	300
		Centerline	High Yield CMBS Fund 3	High-yield debt	200
		Centerline	Real Estate Special Situations Mortgage Fund	High-yield debt	179
		Credit Suisse	DLJ Real Estate Capital Partners 4	Value-added	250
		Feil Organization	RCG Longview Equity	Value-added	125
		Fillmore Capital Partners	Fillmore West Fund	High-yield debt	100
		J.P. Morgan	Strategic Property Fund	Core	100
		Lehman Brothers	Lehman Brothers Real Estate Partners 3	Opportunity	300
		Madison Marquette	Madison Marquette Retail Enhancement	Value-added	100
		Morgan Stanley .	5 U.S	Value-added	150
		O'Connor Capital Partners	North American Property Partners 2	Opportunity	150
		Rothschild Realty	Five Arrows Realty Securities Fund 5	Core-plus	100
		Stockbridge Capital Partners	Real Estate Fund 3	Value-added	200
Pennsylvania	Townsend	Blackstone Group	Real Estate Partners 6	Opportunity	75

State Employees		Fillmore Capital Partners	Fillmore West Fund	High-yield debt	30
		Heitman	Heitman America Real Estate Trust	Core	100
		Prudential Real Estate Investors	PLA Residential Fund 3	Opportunity	25
		Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	50
		Starwood Capital	Starwood Global Opportunity Fund 8	Value-added	50
San Bernardino County Employees	Townsend	AIG Global Investment	AIG Asian Real Estate Partners 2	Opportunity	20
		Fillmore Capital Partners	Fillmore West Fund	High-yield debt	20
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	20
		Invesco Realty Advisors	Invesco High Yield Debt Fund	High-yield debt	20
		Prudential Real Estate Investors	PRISA 2	Core-plus	20
		Square Mile Partners	Square Mile Partners 2	High-yield debt	20
San Diego County Employees	Townsend	Blackstone Group	Real Estate Partners 6	Opportunity	50
		Cornerstone Real Estate Advisors	Apartment Venture 3	Value-added	25
		Prudential Real Estate Investors	PRISA 2	Core-plus	35
		Prudential Real Estate Investors	PRISA 3	Core-plus	50
San Francisco Employees	Townsend	CIM Group	CIM Real Estate Fund 3	Opportunity	50
Texas Teachers	Townsend	ARA Group	ARA Asia Dragon Fund	Opportunity	150
		BlackRock Realty Advisors	BlackRock Retail Opportunity Fund	Value-added	150
		Blackstone Group	Real Estate Partners 6	Opportunity	100
		Camden Property	Camden Multifamily Value-Add Fund	Core-plus	150
		Canyon Capital Realty Advisors	Canyon Johnson Urban Fund 3	Value-added	100
		Capmark	Capmark Commercial Realty Partners 3	Value-added	200
		Capri Capital	Capri Urban Investors	Value-added	75
		Carlyle Group	Carlyle Europe Real Estate Partners 3	Opportunity	202
		CIM Group	CIM Real Estate Fund 3	Opportunity	225
		Colony Capital	Colony Investors 8	Opportunity	300
		Five Mile Capital Partners	Structured Income 2	High-yield debt	200
		Fortress Investment	Florida Coinvestment Fund	Opportunity	100
		Forum Partners	Forum Asian Realty Income Fund 2	Value-added	100
		L&B Realty Advisors	L&B Diversified Strategy Fund	Core-plus	100
		Prudential Real Estate Investors	PLA Residential Fund 3	Opportunity	100
		Prudential Real Estate Investors	PRISA 1	Core	200
		Prudential Real Estate Investors	PRISA 2	Core-plus	200
		RLJ Capital Partners	RLJ Real Estate Fund 3	Value-added	150
		Stockbridge Capital Partners	Real Estate 3	Value-added	200
		Tricon Capital	Tricon 9	High-yield debt	125
		Walton Street Capital	Walton Street Real Estate Fund 6	Opportunity	150
Virginia Retirement	Townsend	Blackstone Group	Real Estate Partners 6	Opportunity	150
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	100
		ING Clarion Capital	ING Clarion Debt Opportunity Fund 2	High-yield debt	100
		Morgan Stanley	6 International	Value-added	150
		Penwood Real Estate	California Select Industrial Partners 2	Value-added	75
Washington State Board	Courtland	Fillmore Capital Partners	Fillmore West Fund	High-yield debt	200
		Limetree Capital	Emerging Beachfront Land Investment Fund	Opportunity	50
Wisconsin Investment	Courtland	Blackstone Group	Real Estate Partners 6	Opportunity	150
		Capital Trust	CT Opportunity Partners 1	High-yield debt	100
		Centerline	High Yield CMBS Fund 3	High-yield debt	50
		Cornerstone Real Estate Advisors	Apartment Venture 3	Value-added	75
		Fortress Investment	Florida Coinvestment Fund	Opportunity	100
		Guggenheim Partners	Structured Real Estate Fund 3	High-yield debt	50

		Heitman	Heitman Value Partners 2	Core-plus	70
		Morgan Stanley	6 International	Value-added	25
		Morgan Stanley	Mezzanine Partners	High-yield debt	75
		Rockpoint Group	Rockpoint Real Estate Fund 3	Value-added	75
		Rockspring Property	TransEuropean Property 4 Fund	Value-added	68
		Sentinel Real Estate	Multi-family Value-Added Fund 1	Value-added	50
Commitments of $5 million or more by Top 50 public pension systems				**Sum**	**$29,945**
Source: RE Alert, March 31, 2008				**Average**	**$104**

10. Analytical Comparison Tools for Public Real Estate vs. Private Real Estate

Several analytical tools will be provided in this Appendix to show the portfolio construction logic that is widely used among institutional investors. The tools can also be used to make comparison between public real estate and private real estate.

First, I will go over some statistics by referencing the dataset we gathered from NAREIT, National Council of Real Estate Investment Fiduciaries ("NCREIF") and some academic studies. NCREIF is an association of institutional real estate professionals who share a common interest in their industry. NCREIF produced quarterly, the NCREIF Property Index (NPI), shows real estate performance returns using data submitted to us by their data contributing members. The NPI is used as a private real estate industry benchmark to compare an investor's own returns against the industry average.

The first data table below compares historical annual return for various equity products. The table suggests NAREIT Equity REIT return is more volatile than NPI annual return. The Russell 2000 Index[67], developed Russell Investment Group measures the performance of the small-cap segment of the U.S. equity universe.

Historical Annual Return Comparison for Equity Products

Year	NPI Annual Return	NAREIT Equity REIT	S&P 500	Dow Jones Industrial	Russel 2000	Nasdaq Composite	US Treasury 10-yr Note
1998	16.3%	-17.5%	28.6%	16.1%	-2.6%	39.6%	-1.1%
1999	11.4%	-4.6%	21.0%	25.2%	21.3%	85.6%	1.8%
2000	12.3%	26.4%	-9.1%	-6.2%	-3.0%	-39.3%	-1.3%
2001	7.3%	13.9%	-11.9%	-7.1%	2.5%	-21.1%	-0.1%
2002	6.8%	3.8%	-22.1%	-16.8%	-20.5%	-31.5%	-1.2%
2003	9.0%	37.1%	28.7%	25.3%	47.3%	50.0%	0.4%
2004	14.5%	31.6%	10.9%	3.2%	18.3%	8.6%	0.0%
2005	20.1%	12.2%	4.9%	-0.6%	4.6%	1.4%	0.2%
2006	16.6%	35.1%	15.8%	16.3%	18.4%	9.5%	0.3%
2007	15.9%	-15.7%	5.5%	6.4%	-1.6%	9.8%	-0.7%

Source: REIT Watch (May 2008), NAREIT and NCREIF

The second data table provides the correlation statistics of the previous historical annual return for various equity products. The dataset suggest NAREIT Equity REIT only has one medium-level correlation between Russell 2000 during 1997-200 and has negative correlation with NPI Annual Return, S&P 500 and Nasdaq Composite. For NPI Annual Return, it has negative correlation with NAREIT Equity REIT and low-mid positive correlation with other equity products. The statistical result below is not obvious to support David Geltner et al.'s Finding 1 (in Section 5.1) during our sample period of 1997-2007.

[67] http://www.russell.com/Indexes/characteristics_fact_sheets/US/Russell_2000_Index.asp, accessed on July 12, 2008.

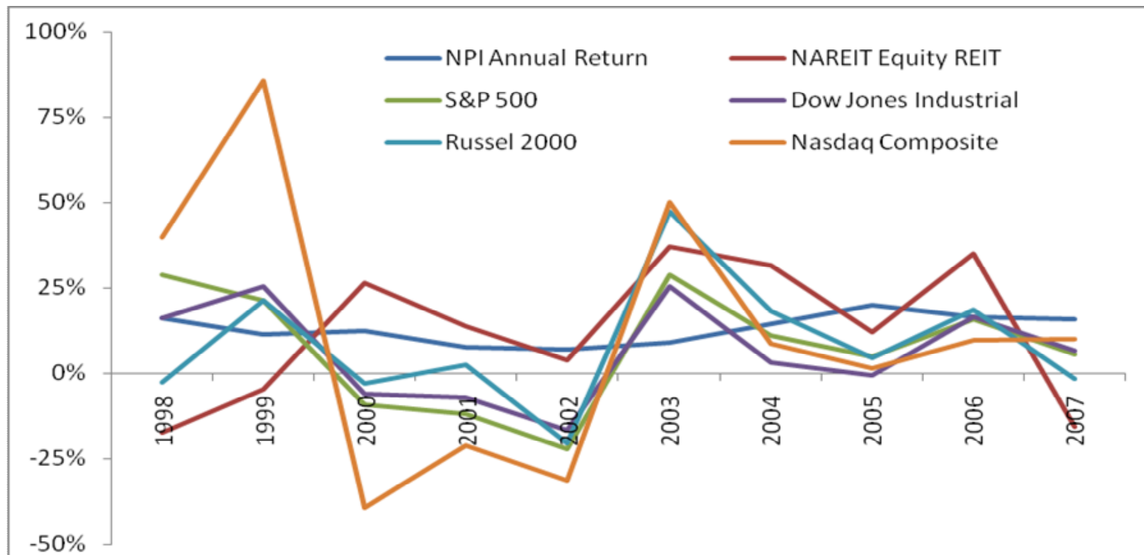
Comparative Total Return Investment Correlation (1997-2007)

Dataset	NPI Annual Return	NAREIT Equity REIT	S&P 500	Dow Jones Industrial	Russel 2000	Nasdaq Composite	US Treasury 10-yr Note
NPI Annual Return	**1.000**	-0.130	0.409	0.243	0.008	0.145	0.032
NAREIT Equity REIT	-0.130	**1.000**	-0.011	0.008	0.542	-0.225	0.168
S&P 500	0.409	-0.011	**1.000**	0.945	0.716	0.860	0.491
Dow Jones Industrial	0.243	0.008	0.945	**1.000**	0.776	0.913	0.642
Russel 2000	0.008	0.542	0.716	0.776	**1.000**	0.646	0.700
Nasdaq Composite	0.145	-0.225	0.860	0.913	0.646	**1.000**	0.726
US Treasury 10-yr Note	0.032	0.168	0.491	0.642	0.700	0.726	**1.000**

Source: REIT Watch, May 2008, NAREIT

The third data chart illustrates the equity return series for 6 equity products in first table. Nasdaq Composite seems to the most volatile one. NPI Annual Return dataset looks to have the lowest volatility among these 6 equity series.

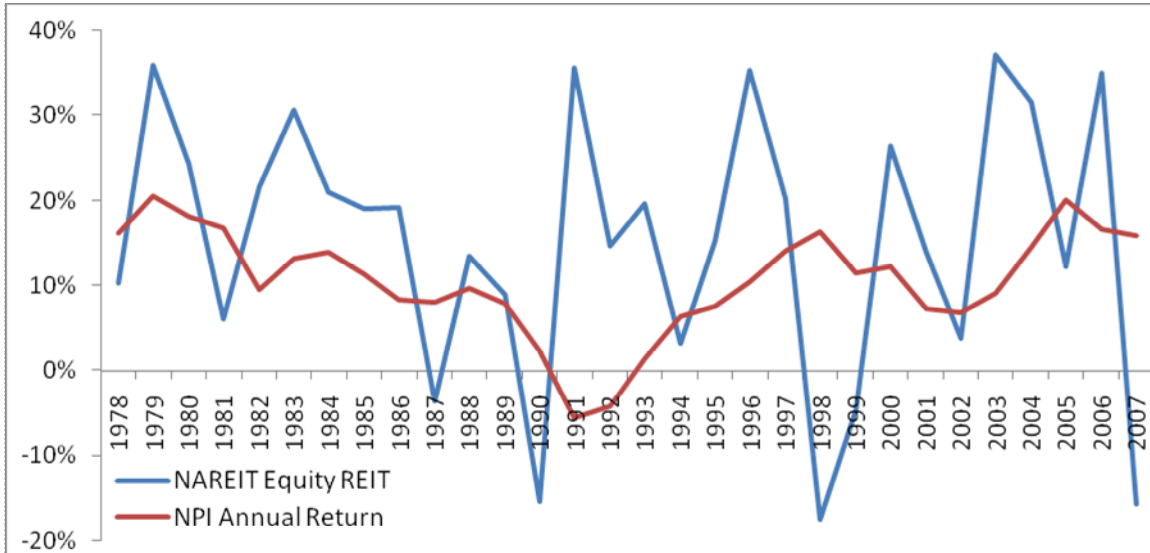
Six Equity Return Series (1998-2007)



Source: REIT Watch, May 2008, NAREIT and NCREIF

The fourth data chart takes longer time series to depict the return profile of NAREIT Equity Return and NCREIF's NPI Index. NPI annual return shows less volatility than NAREIT equity return.

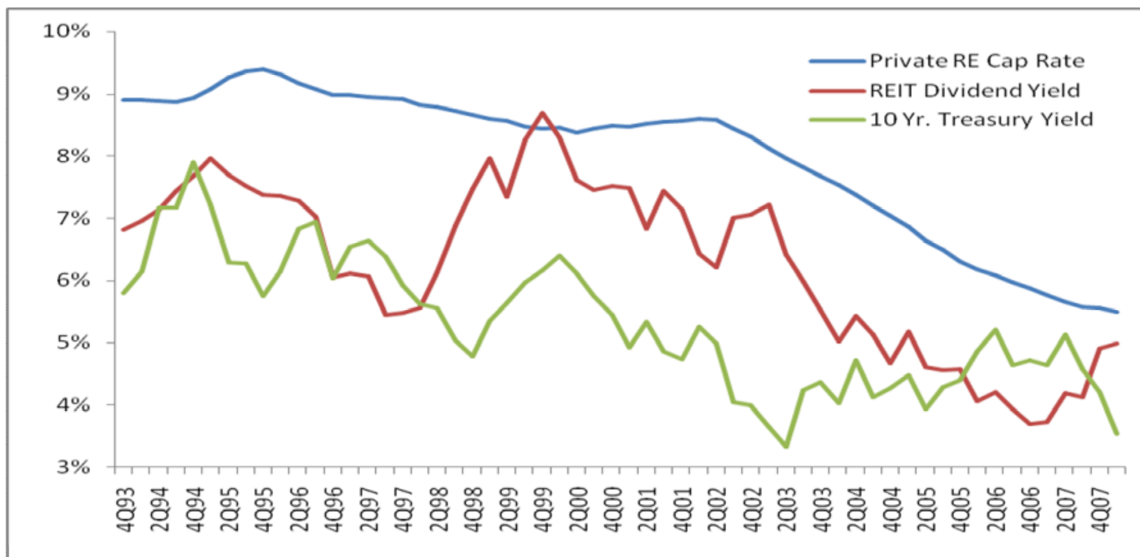
NAREIT Equity Return and NCREIF's NPI Index (1978-2007)



Source: NAREIT and NCREIF (2008)

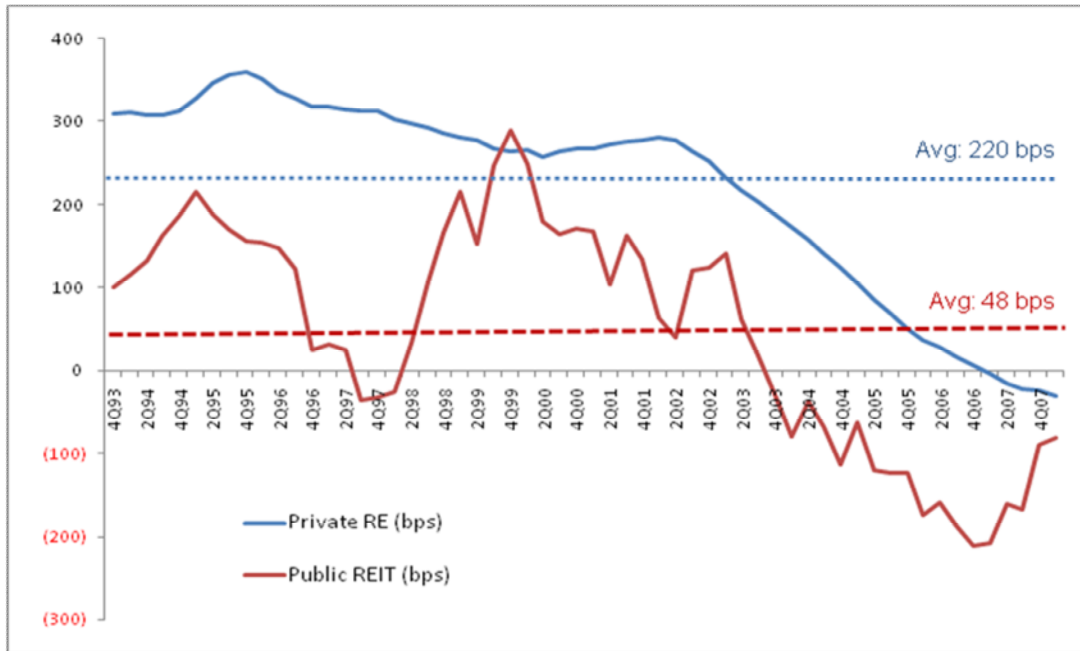
The fifth and sixth data benchmarks quarterly private real estate cap rate and equity REIT dividend yield against 10-yr treasury yield. The average yield-pickup against 10-yr treasury for private real estate cap rate and REIT dividend yield is 220 bps and 48 bps respectively in the studies quarterly data from 4Q93 ~ 4Q07.

Private RE Cap Rate and Equity REIT Dividend Yield vs. 10-yr Treasury (Q93 ~ 4Q07)



Source: NAREIT and NCREIF (2008)

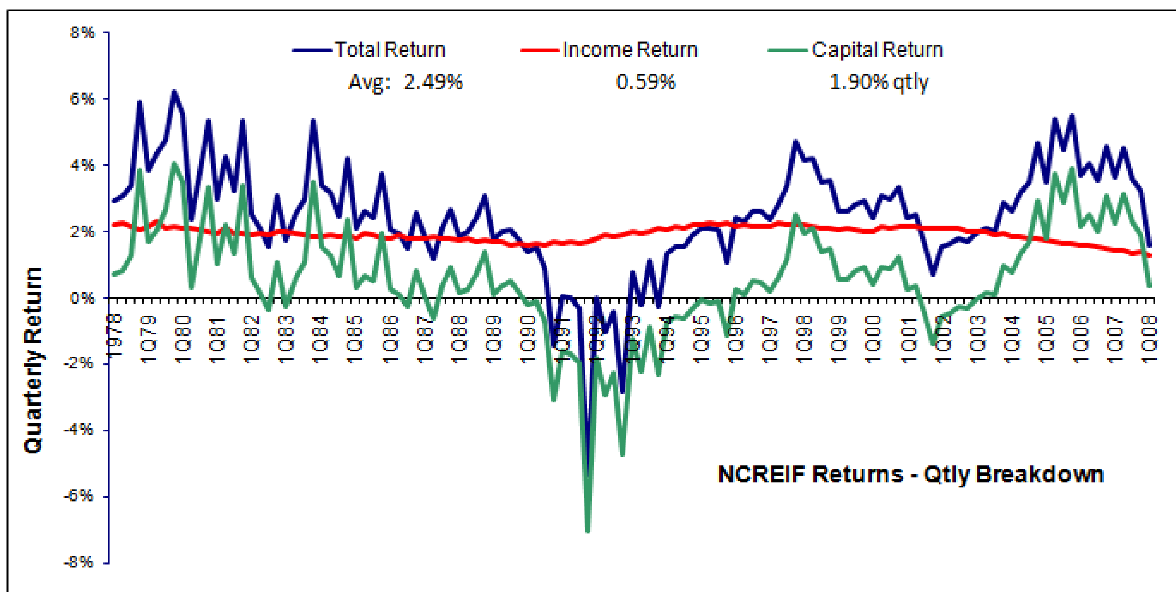
Average Yield Pick-up against 10-yr Treasury



Source: NAREIT and NCREIF (2008)

The seventh data chart is three return series for NPI Index, broken down into total return, income return and capital return. The average quarterly returns for these three series during 1Q 1978 ~ 1Q 2008 is 2.49%, 0.59% and 1.90% respectively. Transforming these quarterly data into annualized data will be 9.96% for total annual return, 2.36% for annual income return and 7.60% for annual capital return.

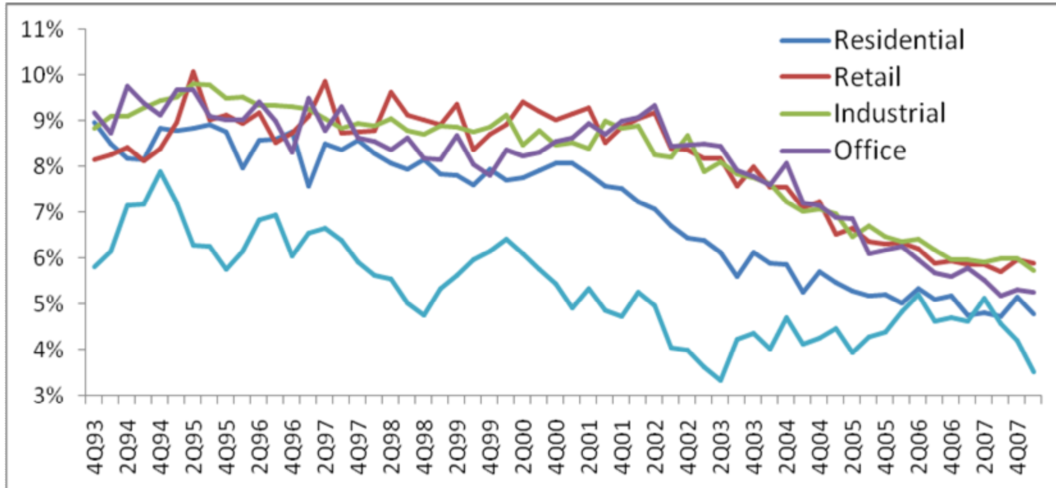
NCREIF Return Quarterly Breakdown (1Q 1997-1Q 2008)



Source: NCREIF (2008)

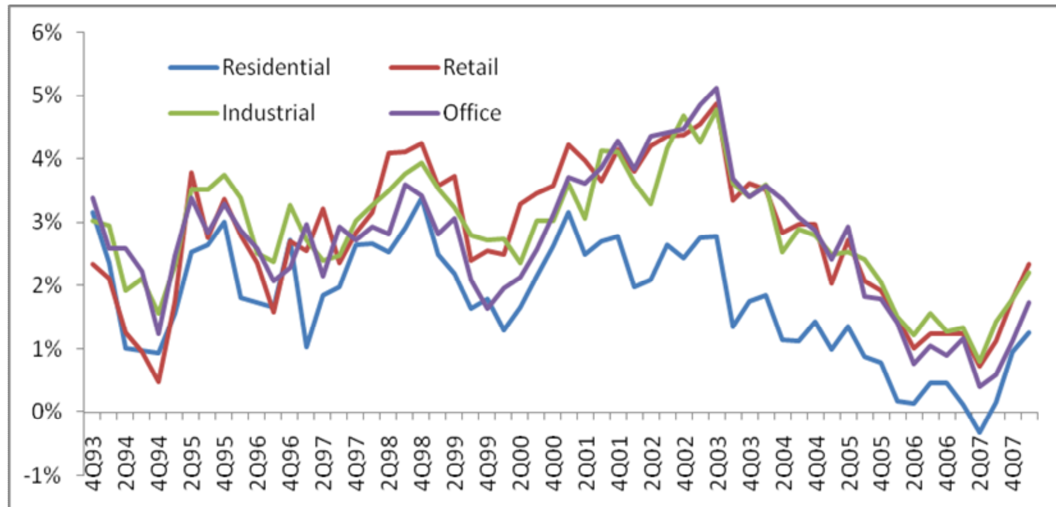
The eighth and ninth data is on NCREIF Current Value Cap Rates by Property (Residential, Retail, Industrial and Office) during 4Q 1993 ~ 1Q 2008.

NCREIF Current Value Cap Rates by Property Type (4Q93-1Q08)



Source: NCREIF (2008)

Yield Pick-up against 10-yr Treasury for Four Property Types (4Q93-1Q08)



Source: NCREIF (2008)

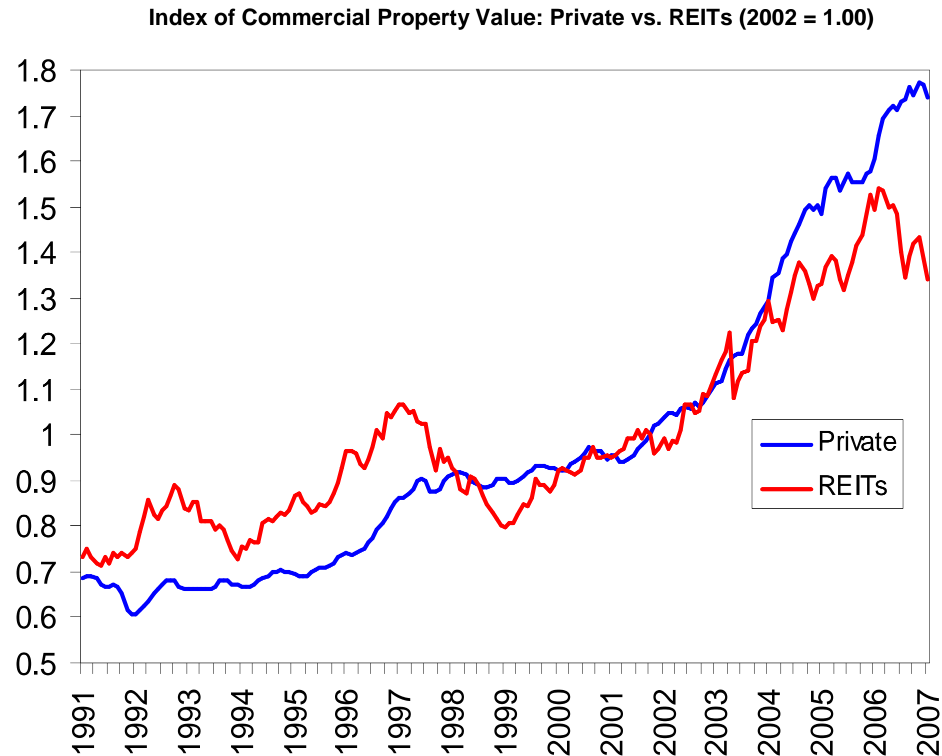
Average annual yield pickup against 10-yr Treasury for 4 sectors are summarized in below table Residential real estate seems to have the lowest cap rate among these four products types reported by NCREIF.

Average Yield Pick-up Summary for Four Property Sectors

Sector	Residential	Retail	Industrial	Office
Annual Yield Pick-up	1.78%	2.80%	2.86%	2.71%

Public REIT vs. Private Real Estate – Who Leads?

My next research question would be either public REIT or private real estate leads the other of the market performance. David Geltner et al. (2007) provides a good diagram as below. David Geltner uses the data series of private real estate and public equity REIT during 1991-2007. His research result: Public REIT (Red Line) in most of the time led the performance of private real estate (Blue Line). Only until 2004-2007, private market valuation rose above market valuations.



Source: David Geltner et al. (2007), Chapter 23 Course Slides, Page 68.

I further use Price/NAV for selected real estate sectors to observe the P/NAV pattern. Merrill Lynch research (2008) provides a good statistics in next page for total REIT and various REIT sectors of their P/NAV ratios since 1996 till June 2008. Historical average P/NAV is traded at **1.03.**

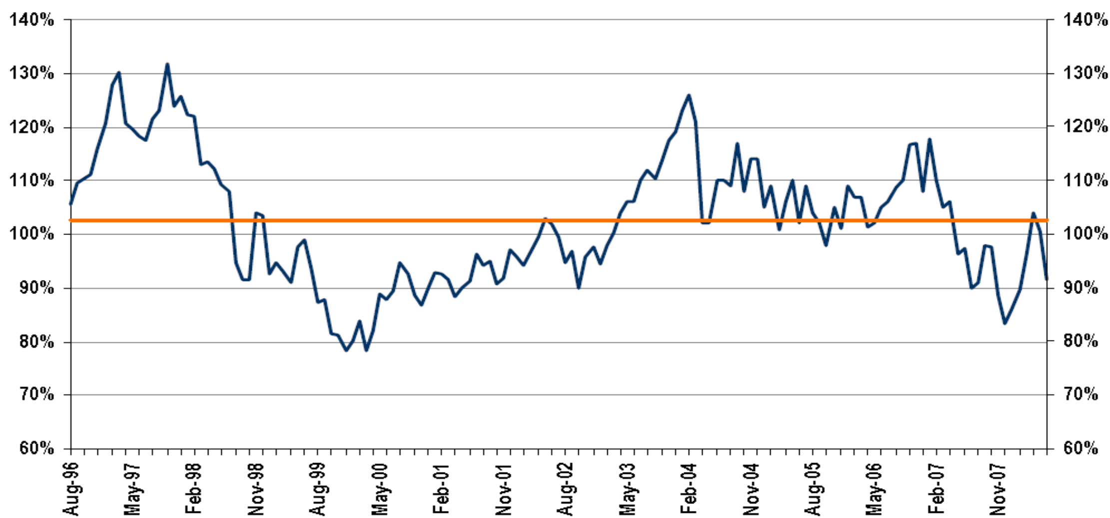
Market Cap Weighted Price/NAVs for Selected Real Estate Sectors

Time	Total REITs	Apart-ments	Shopping Centers	Regional Malls	Office *	Industrial	Self Storage	Manu. Housing	Triple Net	Health Care
Dec-96	116%	106%	119%	104%	125%	109%	133%	112%	N/A	N/A
Dec-97	126%	114%	127%	105%	140%	139%	128%	N/A	N/A	N/A
Dec-98	103%	98%	94%	107%	106%	101%	108%	105%	N/A	N/A
Dec-99	78%	85%	67%	75%	76%	80%	79%	86%	N/A	N/A
Jun-00	88%	95%	78%	79%	104%	91%	84%	88%	N/A	N/A
Dec-00	90%	97%	92%	78%	97%	97%	79%	84%	N/A	N/A
Jun-01	91%	96%	103%	87%	95%	93%	95%	88%	N/A	N/A
Dec-01	97%	105%	114%	95%	97%	92%	104%	97%	N/A	N/A
Jun-02	102%	100%	116%	107%	106%	102%	104%	105%	95%	N/A
Dec-02	98%	91%	109%	110%	87%	98%	99%	93%	125%	N/A
Jun-03	106%	102%	117%	120%	99%	103%	104%	107%	121%	N/A
Dec-03	119%	111%	121%	133%	112%	119%	113%	99%	128%	N/A
Jun-04	110%	110%	109%	112%	108%	110%	111%	90%	119%	N/A
Dec-04	114%	112%	118%	114%	111%	122%	113%	98%	97%	N/A
Jun-05	102%	101%	104%	101%	99%	92%	128%	129%	123%	N/A
Dec-05	101%	100%	106%	101%	99%	101%	108%	104%	109%	N/A
Jun-06	105%	104%	107%	98%	102%	107%	108%	108%	112%	N/A
Dec-06	108%	107%	114%	102%	107%	114%	108%	96%	120%	N/A
Mar-07	105%	98%	115%	107%	104%	107%	104%	94%	112%	107%
Jun-07	97%	100%	99%	95%	94%	100%	93%	82%	102%	N/A
Sep-07	98%	94%	110%	101%	87%	110%	96%	97%	108%	107%
Dec-07	83%	78%	87%	81%	75%	98%	90%	82%	98%	103%
Mar-08	96%	99%	101%	90%	90%	100%	110%	94%	99%	109%
Jun-08	**92%**	**92%**	**91%**	**86%**	**91%**	**90%**	**104%**	**95%**	**119%**	**97%**
Avg **	**103%**	100%	106%	101%	104%	104%	108%	98%	117%	N/A
Min**	78%	78%	65%	71%	75%	80%	77%	76%	93%	N/A
Max**	132%	119%	131%	148%	158%	148%	143%	136%	144%	N/A

* Price/NAV's for Aug-96 through Jun-02 are for the office/industrial sector; ** Aug-96 to Present

Source: REIT Valuation Handbook, Merrill Lynch, June 27, 2008.

Price/NAVs for Total REIT Average (1996-2008)



Source: REIT Valuation Handbook, Merrill Lynch, June 27, 2008

11. Pension Fund Survey Result (2007)

In Appendix 11, I will base on "2005 and a First Look at 2006 Survey Results", published by Dr. Jim Clayton of Pension Real Estate Association in February 2007. The Pension Real Estate Association[68] is a nonprofit organization whose members are engaged in the investment of tax-exempt pension and endowment funds into real estate assets. Founded in 1979, PREA currently lists over 1,800 members, representing over 500 member firms across the United States, Canada, Europe and Asia.

According to Jim Clayton (2007), data result is this section is based on the responses from 67 PREA member firms that at the time of the survey held more than $2,123 billion in assets and $146.8 Bn related real estate investment, of which $129.5 Bn are holdings in real estate equity. Related real estate investment includes private real estate equity, debt and public real estate (REIT, REOC, CMBS).

PREA Reporting Group Profile, 2005

	Assets (US$ Mn)	Allocation (%)
Total Assets Reported	**2,122,667**	
Breakdown by Plan Size		
> $25B in assets	1,737,033	81.8
< $25B in assets	385,633	18.2
Asset Breakdown by Plan Type		
State or Municipal	1,424,518	67.1
Corporate	290,822	13.7
Other	407,326	19.2
Total	2,122,667	100
Holdings in Real Estate-		
Related Investments*	146,803	**6.92**
Holdings in Real Estate Equity	129,483	**6.05**

* Includes private real estate equity, debt and public real estate (REIT, REOC, CMBS).
Source: Jim Clayton (2007)

Among the sample of 2,814 plan sponsors, the real estate equity holdings is $157 Bn, accounting 2.48% of total assets of those 2,814 plan sponsors' total assets of US$ 6,338 Bn. For public REIT holding, it is categorized as a portion of US Stock. Jim Clayton states "the allocation of 2.5% in real estate equity is not informative because the vast majority of plans included do not invest in private real estate. The $157 Bn real estate equity is held by only 711 of the more than 2,813 sponsors".

[68] Source: http://www.prea.org/about/index.cfm, accessed on July 12, 2008.

Plan Sponsor Asset Allocation, 2005

Item	$ Mn	% of Total Assets
Cash and Short-Term Debt (US$ Mn)	485,845,509	7.7%
U.S. Stock*	2,684,571,084	42.4%
Foreign Equities	657,814,617	10.4%
Bonds	1,548,474,132	24.4%
Mutual Funds	244,117,564	3.9%
Real Estate Equity	**157,008,466**	**2.48%**
Alternative Investments	215,497,702	3.40%
Private Equity	65,953,811	1.04%
Venture Capital	13,270,632	0.21%
Hedge Funds	43,065,549	0.68%
Unclassified	93,207,710	1.47%
Other	344,306,855	5.43%
Total Assets	**6,337,635,929**	100.0%

* Includes real estate investment trusts (REITs)

Source: "2005 and a First Look at 2006 Survey Results", Jim Clayton, Feb 2007, Pension Real Estate Association.
(All Plan Sponsors with Total Assets > $250 million)

Jim Clayton further analyzed the 711 member plans who have made private real estate investment. Real estate allocation for top 50 plans stands around 6.3% and with all 711 plans at 5.6%

2005 Real Estate Allocation among 711 plans with real estate equity investment

	Total Plan Assets		Real Estate Equity		
	US$ Bn	% Dist.	$ Bn	% Dist.	% Allocation
Top 50 Plans	1,773	63.4%	112.3	71.5%	**6.3%**
Top 100 Plans	2,112	75.5%	130.3	83.0%	6.2%
Top 150 Plans	2,247	80.3%	138.8	88.4%	6.2%
Top 200 Plans	2,366	84.6%	144.4	92.0%	6.1%
201 ~ 711 Plans	431	15.4%	12.6	8.0%	2.9%
All 711 Plans	2,797	100.0%	**157.0**	100.0%	**5.6%**

711 plans with real estate ranked in descending order by $ of real estate equity.
Source: PREA and Standard and Poor's Money Market Directory

Jim Clayton further confirms the data suggested is in line with two other data research – S&P Money Market Directory and Pension & Investment. S&P's real estate allocation for all plans stands at 6.1% while Pension & Investment at 5.75%.

2006 Real Estate Equity Allocation

S&P Money Market Directory	Total Plan Asset	US$ Bn	% Allocation
All Plans ($ Bn)	2,951	180.0	**6.1%**
Top 50 Plans	1,915	136.0	7.1%
Top 100 Plans	2,250	153.0	6.8%
Pension & Investment	Total Plan Asset	US$ Bn	% Allocation
Top 50 Defined Benefit Plans - 2006	2,451	141.0	**5.75%**
Top 50 Defined Benefit Plans - 2005	2,204	103.1	4.68%
YoY Increase	247.7	37.9	1.07%

Source: PREA, Pension & Investments, Standard & Poor's Money Market Directory

Comment on PREA Survey (2007) Result on Pension Fund's Real Estate Allocation

In PREA Survey (2007) there are no specific statistics for public REIT-sponsored private capital funds (either in single partner JV funds or commingled funds). PREA does have investment allocation number for the "commingled funds". However, the commingled funds could be investment with either REIMs or public-sponsored private capital funds. Most pension funds' private real estate allocation goes to commingled funds and direct investment, accounting 78.8% or $ 88.58 Bn of total $112.4 Bn private real estate investment among the surveyed 67 PREA investor members (that collectively had $2.1 Trillion total plan assets).

For the Joint Venture of $12.2 Bn (10.8% of total private real estate), I am uncertain about whether these are project-level joint ventures or single-partner JV funds from the statistics. With no breakdown of Joint Venture and Commingled Fund, I have no grounds to estimate what JV/Fund investment size is managed by public REITs.

PREA Report also suggests two things that are relevant to our discussion. 1) Larger pension funds do more joint ventures than small ones (with total plan assets < $25 Bn), 2) Public REITs comprised only about 12.5% of total real estate investment (public and private) and are held with no significant allocation difference between larger plans or small plans.

Real Estate Investment Structure Allocation of PREA Members, 2005

	Amount	Reporting Group		By Total Plan Assets	
Private	($ Mn)	% of Private RE	% of Total RE	> $25 Bn	< $25 Bn
Commingled Funds	25,382	**22.6%**	19.6%	13.2%	41%
Direct Investment	63,196	**56.2%**	48.8%	50.7%	34.70%
Operating Company	3,548	3.2%	2.7%	3.3%	0.40%
Joint Venture	12,225	**10.8%**	9.4%	**10.1%**	5.40%
Mortgage	1,476	1.3%	1.1%	1.4%	0.10%
Private REIT	2,253	2.0%	1.7%	1.7%	1.50%
Other	4,325	3.8%	3.3%	3.6%	2.10%
Total Private	**112,406**	100.0%	**86.80%**	87.70%	85.20%
Public					
REIT	16,188	94.50%	12.50%	12.10%	12.20%
REOC	389	2.42%	0.30%	0.20%	0.70%
CMBS	518	2.94%	0.40%	0%	1.80%
Other	0	0.14%	0%	0%	0.10%
Total Public	**17,094**	100.0%	**13.20%**	12.30%	14.80%
Total Private and Public	**129,500**		100%	100.0%	100%

* Based on 67 PREA Investor Members that collectively had $2.1 Trillion total plan assets and $129.5 Bn, or 6.1% of plan assets

Source: Pension Real Estate Association (2007)

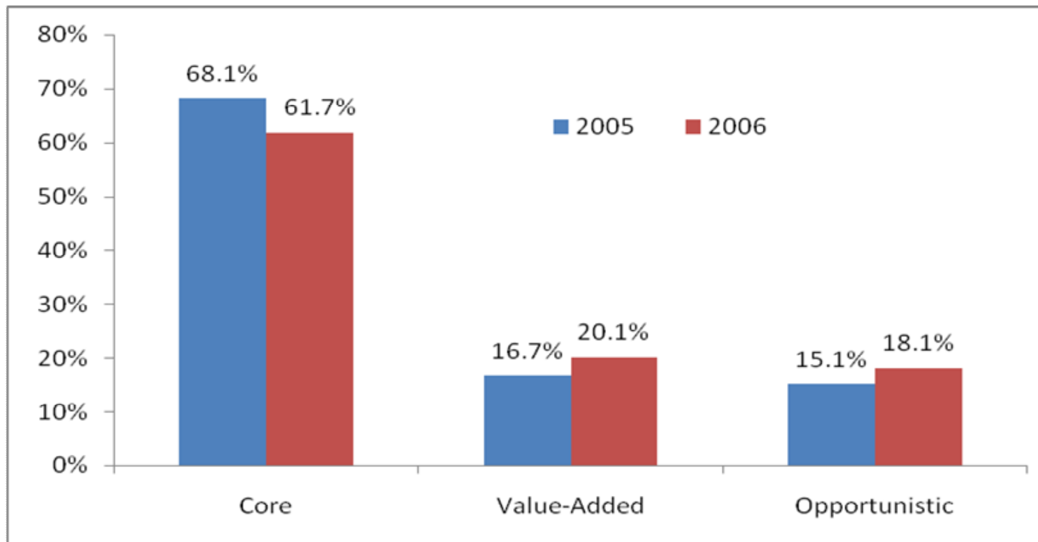
Jim Clayton also summarized the survey result of the fund style strategy among those plan sponsors. The 2005 vs. 2006 suggests that there is decrease in core strategy of 6.4% and increase in value-added strategy and opportunistic strategy (3.4% and 3.0% respectively).

Distribution of Private Real Estate Equity Investment by Strategy, 2005

Year	Core	Value-Added	Opportunistic
2005	68.10%	16.70%	15.10%
2006	61.70%	20.10%	18.10%
YoY % Change	-6.40%	3.40%	3.00%

Source: Jim Clayton (2007)

YoY Distribution Change for Three Types of Real Estate Investment Strategy



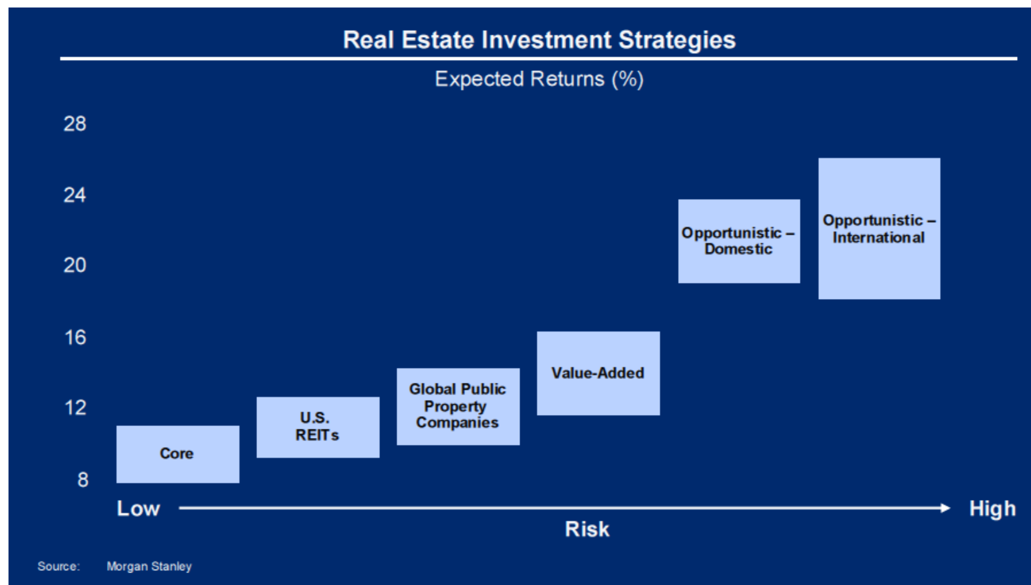
Source: Jim Clayton (2007)

12. Fund Strategy Sample – Morgan Stanley Real Estate ("MSRE")

According to Morgan Stanley Real Estate's website[69], Morgan Stanley has had a dedicated real estate business since 1969, the longest uninterrupted real estate industry presence of any Wall Street firm. Morgan Stanley has over 500 professionals in 25 offices worldwide, focused exclusively on the real estate franchise with $99.6bn real estate asset under management.

The following expected return chart is an excerpt from page 4 and 13 of "Portfolio Construction", Morgan Stanley Real Estate on NCREIF Winter Meeting, February 22, 2006.

Below chart describes the risk-return profile that MSRE views in 1Q 2006 for various real estate investment strategies.



Real Estate Investment Vehicles	Core Fund	US REITs	Global Public RE Securities	Value-Added Fund	Opportunistic - Domestic	Opportunistic -International
Expected Return (%)	8 ~ 11	10 ~ 12	11 ~ 14	12 ~ 15	20 ~ 23	19 ~ 25

It is worth to note some REIMs also mange product line of public REIT securities, such as Morgan Stanley, LaSalle Investment Management and Citi Property Investors.

[69] Retrieved July 12, 2008 on http://www.morganstanley.com/realestate/msr-re-investing_01.html

Available Options by Strategy

	Core	Value-added	Opportunistic
Expected Return	8% - 11%	12-16%	19-26%
Leverage Ratio	20%-40%	40%-60%	60%-80%
Sample Portfolio	- Warehouse in Major Distribution Markets - Major Metro Infill Office (CBD and Suburban) - Apartment - Community Shopping - Center with Market - Dominant Grocery Anchor - Power Center - Lifestyle Center - Stabilized, Dominant Hotel	- Office − Near-term Lease Exposure − Recovery play in tech oriented markets - Industrial − Grade B/C Assets − Development - Retail − Urban in-fill development − Repositioning - Apartment, B with Redevelopment - Hotel, recovery - Senior living community - Mezzanine Debt	- Office with significant vacancy - Wholesale to Retail - Hotel, repositioning - For sale residential − Master planned − Land development - International

Source: "Portfolio Construction", Morgan Stanley Real Estate on NCREIF Winter Meeting, February 22, 2006

As the comment of some industry participants from REIM fields, they do have a similar "investment template" to what MSRE does for "Available Options by Strategy" listed above to make sure the proposed investment portfolio "falls into" the right fund strategy and products.

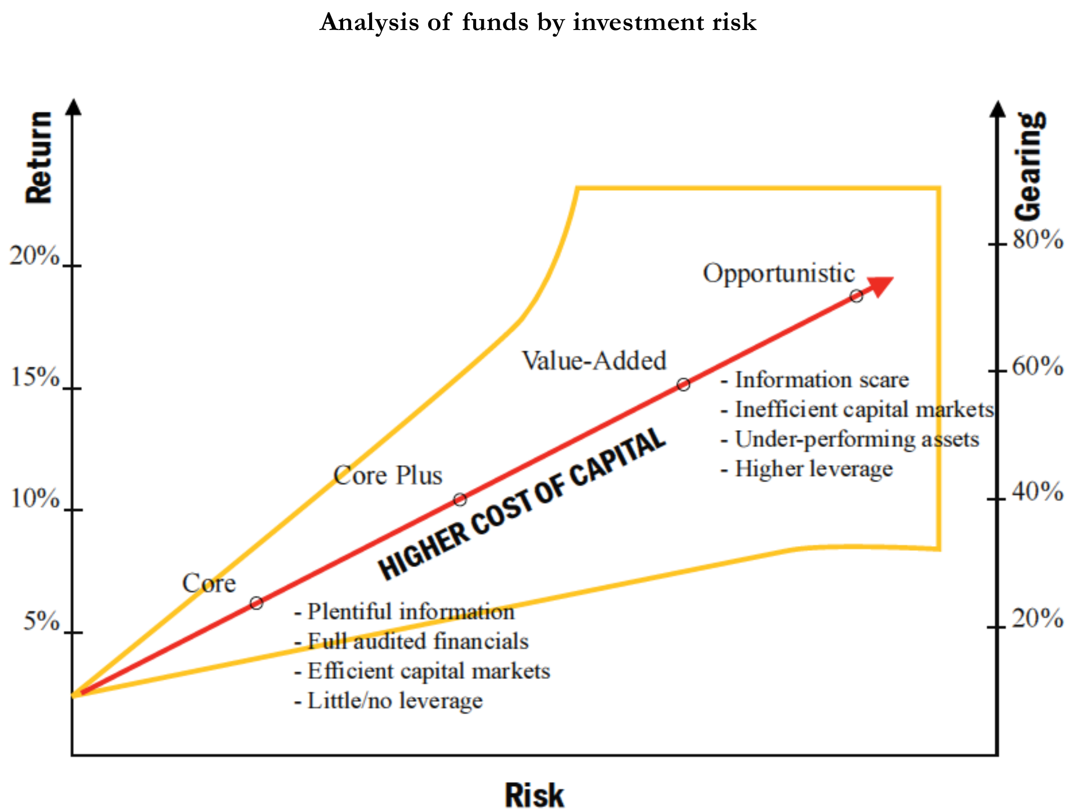
13. Ernst & Young Real Estate Private Equity Fund Category

Ernst & Young

An excerpt from page 23 of "Luxembourg Real Estate Funds – A Comprehensive Survey by Ernst & Young", January 2006.

The different style of funds can be summarized in the following diagram.

Analysis of funds by investment risk



Source: Ernst &Young (2006)

Core Fund

According to Ernst & Young (2006), at the lowest end of the risk spectrum, core funds aim at achieving a stable flow of rental income, rather than dramatic capital gains, through investments in stabilized properties with long-term leases that have highly predictable cash flows and are located in strong, well diversified and low risk markets. Additionally, such funds use relatively little debt (less than 40%) in their capital structure to leverage returns on equity. They act as a safe, regular income-generating assets in an investor's portfolio.

Opportunistic Fund

According to Ernst &Young (2006), on the other end of the spectrum are the opportunistic funds, which aim at large capital gains rather than a stable flow of rental income and are focused on deals that have significantly higher risk profiles. These deals include distressed assets requiring significant re-leasing of vacant space, property repositioning or redevelopment, assets in tertiary markets without deep liquidity, and international assets whose promoters must navigate political and currency risk. Opportunistic funds also are highly leveraged (typically 60% - 80%) to boost equity returns and tend to exit deals on a short-term basis with typical holding periods ranging between 3-5 years.

Core-plus and Value-added Fund

According to Ernst &Young (2006), in between the extremes of core funds and opportunistic funds there is a combination of profiles with varying degrees of investment returns on equity and leverage risk. Core plus and value- added funds tend to achieve a base of predictable income through investments in stabilized properties with medium term leases generating predictable cash flows, and are located in diversified and low to medium risk markets. In addition, there may be an element of their portfolio (normally 20%) aimed at development or more opportunistic investments. Such funds leverage equity from 40% to 60% and tend to exit investments within a period of five years following the initial investment.

About the Student

Cervantes Lee Born: October, 1975 BA, Economics, 1997 National Taiwan University MBA, Finance, 2001 National Taiwan University Candidate, 2008 Class M.S. Real Estate Development Massachusetts Institute of Technology Email: cerlee@mit.edu cervanteslee@yahoo.com	At MIT Center for Real Estate, Cervantes wishes to learn more about real estate investment and development skills in the setting of property level, joint venture, private equity, and public REITs. He also takes “Real Estate Transactions” course at Harvard Law School and “Venture Capital and Private Equity” at Harvard Business School. In January 2008, Cervantes did a short internship with AIG Global Real Estate Headquarters at New York with Transaction Review Group. For the past three years (2004 - 2007), Cervantes has served as the real estate investment manager at AIG Nan Shan Life Insurance Co., the 2nd largest life insurer in Taiwan with total assets over US$ 35 Bn. He is the first hire and directly reports to Head of Real Estate Investment Director. Cervantes has assisted in building first US$ 800 Mn real estate portfolio (nearly zero real estate exposure before the Team set-up) over 11 investment projects, including hypermarts, power center, regional malls, office, industrial office, residential development and REIT IPOs in Singapore, Hong Kong and Taiwan. He was ranked as one of the top three investment managers by AIG Global Real Estate Asia in 2005 and 2006. Before attending MIT, Cervantes was assigned as Deputy Head of Real Estate Investment Department, and managed 5 recruited investment analysts’ daily work. Prior to joining AIG Nan Shan, Cervantes has some working experience with Colony Capital in real estate investment and Credit Lyonnais Securities Asia in banking and property research. Cervantes also has 20-month civil service experience as second lieutenant and transportation officer for R.O.C Navy (Taiwan). Cervantes has received Certified Commercial Investment Member (CCIM) Designation in 2007. He is an active member in Urban Land Institute and International Councils of Shopping Centers. He has been a Fellow of the Life Management Institute (FLMI) since 2005. He passed CFA Level I Exam in 2001. He is native in Mandarin and Taiwanese, and has working knowledge of English and Japanese.