

## **Strategies of Focus and Opportunity**

### **Trends in Public-Market Commercial Real Estate Penetration**

**From 1998 to 2003**

**August 2004**

## Research

Robert Hess, Ph.D., CFA  
Principal  
US Office  
Tel 973.683.1689  
robert.hess@prudential.com

Youguo Liang, Ph.D., CFA  
Managing Director  
US Office  
Tel 973.683.1765  
youguo.liang@prudential.com

Prudential Real Estate Investors (US)  
8 Campus Drive  
Parsippany, NJ 07054  
USA

Tel 973.683.1745  
Fax 973.734.1319  
Web [www.prudential.com/prei](http://www.prudential.com/prei)  
E-mail [prei.reports@prudential.com](mailto:prei.reports@prudential.com)

During 2003, public real estate investment companies sharply reduced their apartment and hotel portfolios, steadily acquired retail properties, held their warehouses and began positioning their office holdings for an anticipated recovery.

REITs and REOCs took advantage of market opportunities to buy and sell, and displayed sharply focused strategies in 2003. They also executed new ideas in portfolio construction to gain access to properties not previously tapped by institutional investors. In markets where the flow of debt capital strongly supported private buyers, REITs seemed to recognize the opportunity to sell. At the same time, REITs also noted that other markets were approaching their cyclical low points, leading them to become more aggressive acquirers. In short, focused investment strategies that exploited transaction market conditions won the day in 2003.

For example, public firms aggressively sold apartment properties, taking advantage of strong pricing in the apartment market, as leveraged buyers from the private side pushed down cap rates and drove up prices to levels not seen in recent memory. To grow their apartment holdings, apartment REITs and REOCs increased their use of development, thus expanding their portfolios without competing directly in the transactions market.

At the same time, REITs and REOCs became more aggressive office buyers, reflecting an opportunity to purchase assets at low prices in anticipation of renewed office space absorption, as the economic recovery gathers steam. Also, REITs and REOCs decreased their office development; with very high vacancies in many metropolitan markets, new office construction makes little sense.

In another example of creativity in the acquisition of office properties, the launching of American Financial Realty (AFR) brought more than 500 properties and 17 million square feet of office space into the public sphere, largely in the form of sale-leaseback arrangements involving the retail branches of financial institutions.

Last year, REITs took advantage of the well-documented disconnect between the property and equity markets. Public companies' equity capital-raising rose for the third consecutive year. REITs raised a total of \$13.3 billion in new equity capital, the most since 1998, including the creation of seven REITs and REOCs, compared with only three in 2002. The new equity flowed fairly evenly to the industrial, office, retail and lodging sectors. Apartment REITs raised somewhat less equity, although Affordable Residential Communities' (ARC) IPO raised more than \$500 million in new equity capital for manufactured homes, which is beyond the scope of this report. New debt issues totaled \$12.2 billion, roughly matching the 2001 and 2002 totals.

The strong retail property markets seemed to spur public companies to buy. Purchases of both mall and non-mall retail assets rose sharply relative to 2002. However, the strong market for retail properties also led to corporate buyouts, removing more than 40 malls from public ownership, a very large number given the small amount of properties and their high average values. Over 50 malls changed hands in takeovers, with more than 30 finishing the year in the hands of private companies. Were there not individual mall acquisitions by REITs and REOCs, these transactions would have reduced mall penetration by more than 1.5 percentage points. More than 500 non-mall properties changed hands in corporate buyouts during the year, of which 90 involved buyouts by private firms.

One notable private-to-public transaction, Vornado Realty's (VNO) purchase of Kaempfer Co., brought 175 non-mall and two mall properties into the public universe. Two notable public-to-private buyouts – Phillips Edison's acquisition of Aegis Realty (AER) and Lightstone Group's purchase of Prime Retail (PMRE) – drained about 50 non-mall retail properties and five malls from the public side. Several public-public acquisitions took place during the year as well, the largest in dollar terms being Pennsylvania REIT's (PEI) acquisition of Crown American Realty (CWN) in November.

Finally, joint venture activity remained relatively strong during 2003 as office, apartment and retail firms seemed to imitate industrial REITs' actions in 2002. As we mentioned last year, the Financial Accounting Standards Board's interpretation 46, or "Fin 46," which provides guidance on disclosures involving joint ventures, continues to spur action on the part of investment firms. We suspect that it prompted additional corporate balance sheet adjustments in 2003.

### **Summary Observations for 2003**

Penetration trends seen in 2002 continued into 2003, as **Exhibit 1** indicates. Positive growth in penetration of both retail categories, with a strong mall penetration gain, aligned with the very strong investment performance of the sector in 2003; the NCREIF retail property index registered a 17.3% total return, repeating 2002's strong rise. Another decline in hotel penetration coincided with continued weak demand in the lodging sector.

Notably, however, the apartment category posted a sharp decline in penetration despite strong investment returns, reflecting the decision of REITs and REOCs to sell apartments at high prices. In fact, the absolute number of apartment units held declined in 2003 for the fourth time in the last five years. In 2002, the number rose modestly, apparently only interrupting a longer-term trend.

**Exhibit 1: Public-Market Penetration Changes: 2002 to 2003<sup>1</sup>**

	2002	2003	Change (% pts)
Office	7.6%	7.9%	+0.3%
Apartment	7.9%	7.4%	-0.5%
Warehouse	8.4%	8.5%	+0.1%
Non-Mall Retail	12.8%	13.1%	+0.3%
Hotel	16.3%	15.2%	-1.1%
Mall Retail	36.3%	36.8%	+0.5%

The office and warehouse penetration rates were little changed from 2002. The warehouse ownership share decreased sharply in 2002 but remained essentially flat during 2003. In fact, warehouse REITs' transaction activity was muted for the second consecutive year. On the other hand, the positive change in overall office penetration, compared with a small decline in 2002, reflects both the much-increased pace of office purchases as well as the significant number of new office properties AFR brought when it went public. Exhibit 2 provides additional detail on the types of transactions that led to ownership changes in 2003.

**Exhibit 2: Public Ownership Additions and Removals in 2003 (no. of investments)**

	Office	Non-Mall Retail	Apartment	Warehouse	Mall Retail	Hotel
IPO Properties	250	0	15	2	2	1
Purchases	476	510	84	52	73	73
New Developments	16	33	28	5	10	1
JV to Majority Share	24	9	24	0	2	0
Merger Acquisitions	6	223	9	2	10	152
<b>Total Additions</b>	<b>772</b>	<b>775</b>	<b>160</b>	<b>61</b>	<b>97</b>	<b>227</b>
Sales	183	243	315	60	24	137
JV to Minority Share	12	70	7	1	8	6
Merger Removals	8	314	9	4	42	619
<b>Total Removals</b>	<b>203</b>	<b>627</b>	<b>331</b>	<b>65</b>	<b>74</b>	<b>762</b>
<b>Net Change</b>	<b>569</b>	<b>148</b>	<b>-171</b>	<b>-4</b>	<b>23</b>	<b>-535</b>

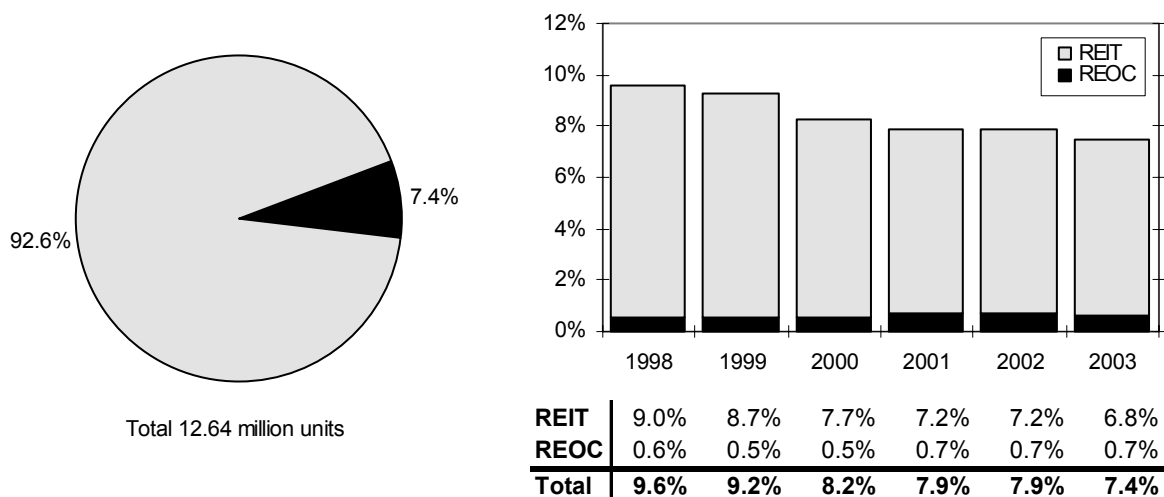
**Apartment**

For most of 2003, very strong demand for apartment investments and very low mortgage rates presented public market participants with far more sell opportunities than attractive acquisition possibilities. As a consequence, transaction activity tilted toward net sales, and REIT holdings declined. Sales by REITs exceeded acquisitions by 50 transactions, reducing units held by 60,000. At year-end, 34 publicly traded REITs reported holding at least one apartment property.

Corporate-level acquisitions remained quite muted, with only one transaction, Cornerstone Realty Income's (TCR) purchase of Merry Land Properties (MRYP) in May, involving nine assets totaling 1,966 units. One small private-to-public deal added 15 properties to the public universe during 2003 when America First Apartment Investors (APRO) assumed the assets of America First Apartment Investors, L.P. on Jan. 1, mentioned in last year's report.

<sup>1</sup> Unless otherwise indicated, Prudential Real Estate Investors is the exhibit source.

## Apartment Public-Market Penetration Year-End 2003



Seventeen REITs reported acquisitions during the year, totaling 76 properties, by far the lowest acquisition count since 1995, when we began monitoring transaction activity. (The prior low occurred in 2000, with nearly 200 acquisitions.) In total, the 2003 acquisitions added 21,700 units to the REIT ownership rolls. The most active acquirers were Equity Residential Properties (EQR) with 17 purchases, United Dominion Realty (UDR) with 11 purchases, and Apartment Investment and Management Co. (AIV) with eight purchases, plus 13 additional properties reported on a consolidated basis. Forest City Enterprises (FCE.A) was the only REOC acquirer of note, purchasing or opening 11 new apartment properties.

Property sales were extremely strong, led by EQR selling 96 assets with about 23,000 units; AIV selling 72 consolidated and 37 unconsolidated properties, containing about 16,000 units; and Archstone Communities (ASN), which disposed of 48 properties with about 16,000 units. Overall, in 2003 REITs sold 283 properties that met our percent ownership and size guidelines (see Appendix A). These properties contained nearly 82,000 units. Of the 37 REITs holding apartments for at least part of the year, 22 reported at least one sale of an apartment property. Among REOCs, American Realty Investors (ARL) was an active seller, disposing of 18 apartment assets in 2003.

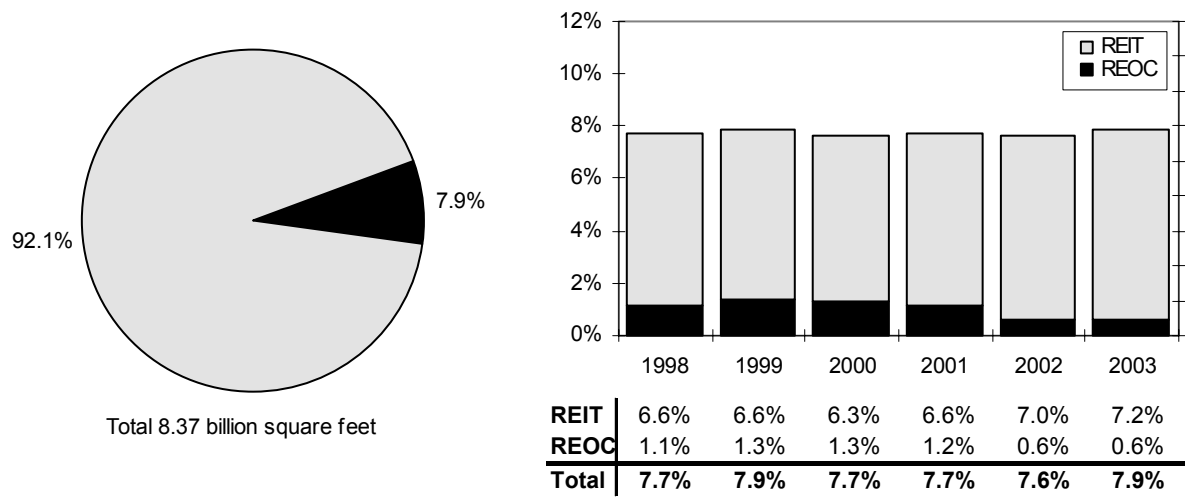
### Office

Despite continued active selling by many REITs, resumed selective property acquisitions, combined with the creation of four new public companies, produced a year of slow ownership share growth. This property type remains by far the most broadly held of the six we follow. During 2003, 79 REITs and 17 REOCs held at least one office property.

One IPO dominated the contributions to office holdings. American Financial Realty (AFR) completed its initial offering on June 30 and remained an active acquirer throughout 2003. By year-end, its initial portfolio plus additional acquisitions had increased the penetration share by well over 500 properties, containing 17 million square feet. This REIT alone added about half of the total expansion of office penetration during 2003. Three other firms added smaller office

property portfolios via IPOs, including Maguire Properties (MPG) in June and First Potomac Realty (FPO) in October. Also, APRO brought one office property into the public universe along with its apartment holdings. Just missing inclusion in the 2003 year-end figures, Government Properties (GPP) completed its public offering in January 2004.

**Office Public-Market Penetration Year-End 2003**



Acquisition activity during 2003 was restrained, although Liberty Property (LRY) and Duke Realty Investments (DRE) were both active acquirers and developers. Health & Retirement Properties (HRP) reported the acquisition of 27 properties, most of which were offices. SL Green Realty’s (SLG) acquisition of 220 East 42<sup>nd</sup> St. in Manhattan in February was notable for its size. In total, only about half of the public companies reporting ownership of office properties acquired any new office investments during the year.

Disposition activity, on the other hand, remained near the 20-million-square-foot pace typical of these firms over the past few years. Some of the largest REITs, Equity Office Properties (EOP), Trizec Properties (TRZ) and Boston Properties (BXP), for example, all disposed of more than one million square feet of office space. Other public companies, including Glenborough Realty (GLB), Prentiss Properties (PP) and Vornado Realty (VNO), with its Two Park Ave. like-kind exchange, reported total dispositions exceeding 750,000 square feet of office space. The BXP sales included a three-for-one like-kind exchange for 399 Park Ave. in Manhattan, a move consistent with the focused and opportunistic nature of many REIT transactions last year.

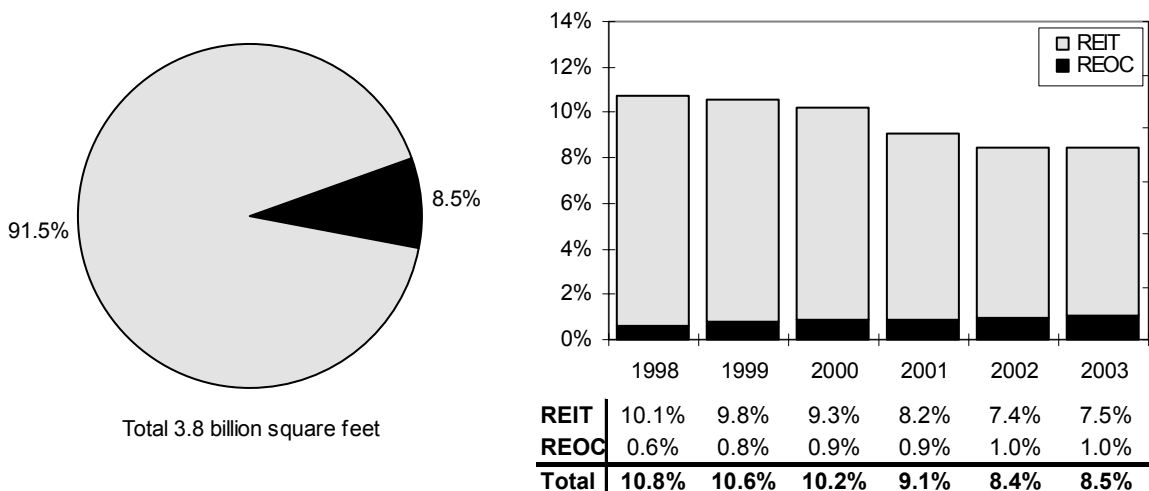
Corporate buyouts during 2003 had little effect on office penetration. However, privately held Transwestern Investment’s acquisition of Great Lakes REIT (GL) in April 2004 removed nearly five million square feet of office space from public ownership.

Deal restructurings, in fact, had a greater effect on the public ownership total during 2003 than did acquisitions. REITs gained controlling interests in about 3.5 million square feet of office space during the year. Most of the properties involved a transaction in March in which Highwoods Properties (HIW) acquired all of the equity interest in properties previously held

jointly with Miller Global. At the same time, REITs sold controlling interests in about 5.8 million square feet, including several properties held by EOP.

## Warehouse

### Warehouse Public-Market Penetration Year-End 2003



Industrial REIT and REOC activity remained relatively quiet during 2003. Only three firms among the 14 that held 10 or more industrial properties during the year adjusted their portfolios by more than five properties, either up or down. Prologis (PLD) continued to dominate the sector, controlling over half of the properties and accounting for 45% of the institutional market<sup>2</sup> share in the sector. Total removals dropped below eight million square feet in 2003, compared with more than 17 million square feet in 2002. Acquisition activity accelerated slightly to about nine million square feet.

The three most active firms, all REITs, were First Industrial Realty (FR), Keystone Property (KTR) and PLD. FR trimmed its portfolio by just under three million square feet in 2003, while the others added net space. Most of the PLD acquisitions were associated with the large Interchange City acquisition from Invesco in Nashville in November. Most of the KTR warehouse growth traces to the November acquisition of the International Corporate Park in Dade County, Fla., from the Easton Group. The firm also made two large industrial property acquisitions that are not counted in our warehouse totals.

FR's dispositions involved many individual sales scattered throughout the US, including 23 warehouse properties, with an average size of about 160,000 square feet, in 13 states. The firm also sold about 100 industrial properties during the year that were not warehouses.

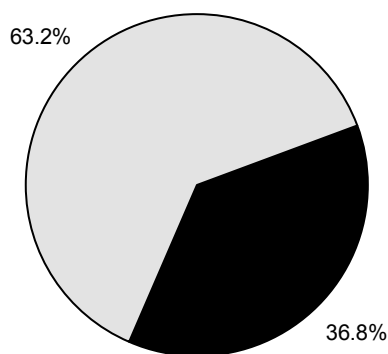
Duke Realty Investments (DRE) also sold numerous properties during 2003, including 15 warehouses, the impact of which, consistent with the firm's stated "capital recycling program," was essentially offset by the completion of projects it was developing.

<sup>2</sup> Leased or for-lease domestic warehouses with at least 25,000 square feet of space.

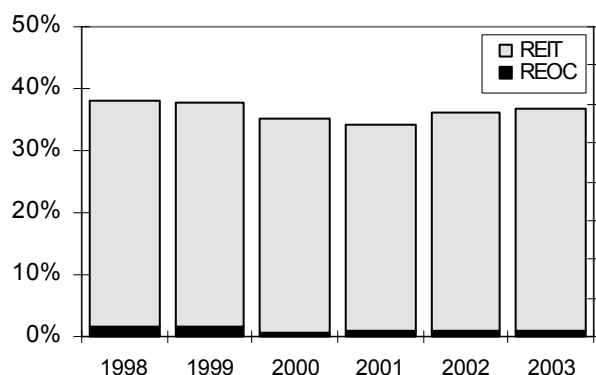
Other changes in public market holdings were quite small. Little merger activity involving firms holding warehouse properties occurred during 2003. Catellus Development (CDX) converted to REIT status just after year-end. This action will have no impact on public market penetration, but going forward, will slightly affect the REIT/REOC penetration shares. Finally, one IPO of note involving industrial properties occurred in 2003 with the offering of First Potomac Realty (FPO) shares in October. Most of its property portfolio, however, is classified as flex or general industrial, not warehouse.

## Mall Retail

### Retail Mall Public-Market Penetration Year-End 2003



Total 1,896 Centers



	1998	1999	2000	2001	2002	2003
<b>REIT</b>	36.4%	36.2%	34.3%	33.2%	35.4%	35.9%
<b>REOC</b>	1.6%	1.5%	0.8%	0.9%	0.9%	0.9%
<b>Total</b>	<b>38.0%</b>	<b>37.7%</b>	<b>35.1%</b>	<b>34.1%</b>	<b>36.3%</b>	<b>36.8%</b>

REITs continued to acquire malls rapidly, although at a slightly slower pace than in 2002. At the same time, several buyouts took place, including one notable public-to-private transaction. Direct sales also numbered more than in 2002. On net, mall ownership penetration advanced by a little over 20 properties, only about one-third the 2002 pace, but sufficient to register the second-fastest growth since 1998 and rapid enough to advance penetration share by 0.5%.

Fifteen public REITs and REOCs reported mall purchases during the year. The most active were Mills (MLS), General Growth Properties (GGP) and CBL & Associates Properties (CBL). In January, MLS purchased four malls and an additional smaller retail property from Cadillac Fairview, plus three additional malls in individual transactions later in the year. MLS also opened two new malls in 2003. GGP acquired 10 malls and a minority interest in another last year. CBL acquired six malls in 2003.

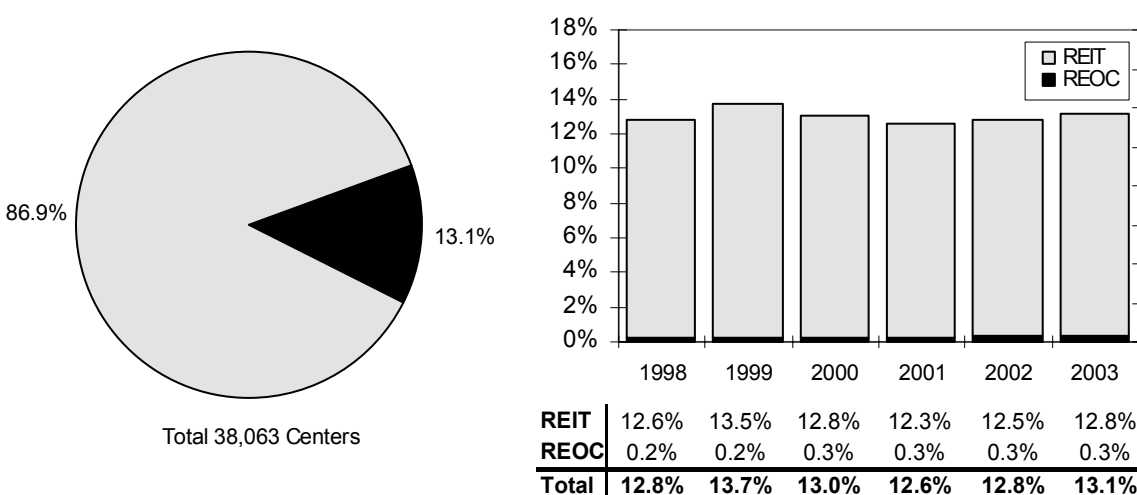
Fewer firms actively disposed of malls last year. Rouse Co. (RSE) and Simon DeBartolo Group (SPG) each sold six malls meeting our size criterion (400,000 square feet of gross leasable area). We counted the sale of 14 additional malls by eight public firms during the year.

Five corporate buyouts took place during 2003 that involved the transfer of mall ownership, although the number of malls involved was small in all but one case. The most notable transaction was Pennsylvania REIT's (PEI) acquisition of Crown American Realty (CWN) in

November, transferring ownership of 26 malls. PEI was also the buyer of the above-mentioned RSE properties. Buyouts involving a smaller number of mall properties included Pan Pacific Retail Properties' (PNP) acquisition of CenterTrust Retail Properties (CTA) in January and Developers Diversified Realty's (DDR) purchase of JDN Realty (JDN) in March. One mall changed hands in Kimco Realty's (KIM) acquisition of Mid-Atlantic Realty (MRR); KIM held the property only briefly. One additional transaction, the privately held Lighthouse Group's acquisition of Prime Retail (PMRE) in December, removed five malls and many smaller retail outlets from public ownership.

## Non-Mall Retail

### Non-Mall Retail Public-Market Penetration Year-End 2003



Reflecting the same fundamental strength driving mall ownership growth, ownership of non-mall retail properties held by public companies increased once again in 2003. In fact, the growth came despite two material public-to-private transactions that occurred during the year.

Direct purchases reached 500 properties for the first time since 1998, while sales remained in the 200 to 300 range that has characterized this market segment for the past four years. By far the most active acquirer in 2003 was Realty Income (O), whose business strategy focuses on free-standing, single-tenant locations leased to retail chains. This REIT added well over 200 new stores to its portfolio, stemming largely from transactions involving National Tire and Battery retail stores and The Pantry convenience stores. Five other REITs reported acquiring more than 25 non-mall retail properties. Only one, Capital Automotive REIT (CARS), acquired the properties through direct purchases. The other four accumulated new properties primarily through corporate takeovers. In total, 32 public companies purchased at least one property in 2003.

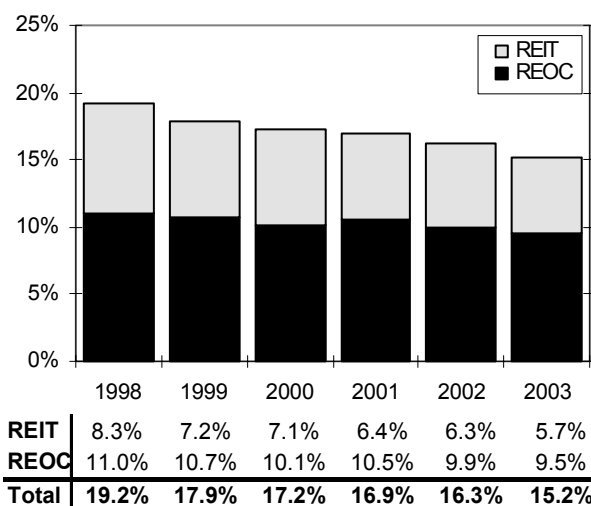
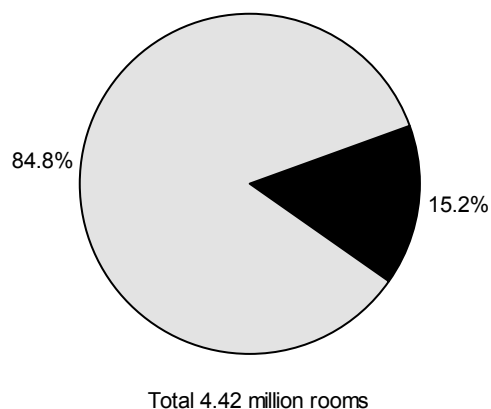
Sales were more dispersed among public firms, with 45 reporting at least one sale. None sold as many as 30 properties, and only six reported selling 10 or more. The most active seller, Realty Income, sold 27 properties through its Crest Net subsidiary. Other active sellers included New Plan Excel Realty (NXL), Malan Realty Investors (MAL), which began liquidating in the second

half of 2002 and continued to do so in 2003, Developers Diversified Realty (DDR), Kimco Realty (KIM) and Regency Realty (REG).

Last year was notable for a number of significant corporate-level transactions. The largest involving non-mall retail properties was DDR's acquisition of JDN Realty (JDN) in March. DDR took ownership of 117 mall and non-mall properties in the transaction. Equity One's (EQY) acquisition of IRT Property (IRT) in February involved 93 mall and non-mall properties. Two other public-to-public transactions of note involving non-mall retail properties took place during the year: KIM acquired Mid-Atlantic Realty (MRR) in October, and Pan Pacific Retail Properties (PNP) acquired CenterTrust Retail Properties (CTA) in January. Finally, two public-to-private acquisitions removed more than 50 non-mall retail properties from public-side ownership: Phillips Edison's acquisition of Aegis Realty (AER) in March and Lightstone Group's acquisition of Prime Retail (PMRE) in December.

## Hotel

### Hotel Public-Market Penetration Year-End 2003



Weak market conditions extending over several years have led to the downsizing of numerous hotel companies; few have grown. In 2003, relatively active trading and some restructuring ultimately produced an ownership decline of about 40,000 rooms. Net penetration declined by more than one percentage point as ownership growth fell short of stock growth.

Hospitality Properties (HPT) acquired the most new hotel units during the year, primarily from three transactions involving the acquisition of select Candlewood Suites and Staybridge Suites hotels. In total, the firm added 35 properties with more than 4,000 rooms to its portfolio with these transactions.

Despite adverse market conditions, two hotel IPOs took place in 2003. Ashford Hospitality (AHT) acquired six hotels concurrently with its IPO in August and an additional nine hotels later in the year, adding just under 2,400 rooms to the public-side hotel ownership total. Highland

Hospitality's (HIH) IPO took place on December 19, at which time it acquired three hotels. The firm added two additional hotels in December, ending the year with five hotels containing about 1,300 rooms. Only 13 REITs and REOCs reported acquisitions during the year.

In contrast, 24 public firms reported hotel sales in 2003. A few were relatively active, with dispositions of 10 or more properties: Starwood Hotels & Resorts (HOT) with 16 sales; Wyndham International (WBR) with 18 sales; and FelCor Suite Hotels (FCH) with sales of 11 domestic hotels. In addition, Lodgian (LGN) reported 10 dispositions, most connected with debt satisfaction in its emergence from Chapter 11 bankruptcy.

One important corporate takeover occurred during the year – privately held CNL Hospitality Properties' acquisition of RFS Hotel Investors (RFS) in July. This transaction removed 56 properties with about 8,100 units from public-side ownership. A large public-to-private transaction took place in May 2004, removing over 45,000 hotel rooms owned by Extended Stay America from the public side when the Blackstone Group acquired it.

## **Appendix A: Data Sources and Estimates for Institutional-Quality Holdings and Investable Universe Size by Property Type**

### **Investable Universe Size by Property Type**

In this update, we applied precisely the same definitions for the institutional-quality investable universe as we did in preparing the prior penetration estimates. For the most part, the estimates exclude the smallest buildings, government buildings and owner-occupied structures from property-type totals. Below, we summarize the definitions and methodology used to estimate the investable universe for each of the six property categories.

#### **Real Estate Investment Trusts (REITs)**

The exclusive source of information in this study on REIT property holdings and transactions is a statistical database of properties maintained by SNL Securities. This database currently contains detailed information on more than 41,000 individual properties held (or planned to be held) by equity REITs and selected REOCs. The information used in this study includes: company of ownership, size (in square feet, units or rooms, depending on the property type), location, acquisition date, year built, ownership percentage and sale date (if applicable). In addition, we extract data on real estate company IPO dates and REIT status from another database of REIT and REOC corporate information, also maintained by SNL Securities.

#### **Real Estate Operating Companies (REOCs)**

We include properties held by public firms categorized in May of each year by Bloomberg as belonging to the Real Estate and Lodging industry categories, plus the Casino Hotel and Resort Theme Park subcategories of the Entertainment industry. Non-hotel gaming companies and firms whose entire real estate holdings were offshore are excluded. The REOCs must be publicly held and trade on one of the major stock exchanges in the US or Canada. In early 2000, SNL

Securities began coverage on several REOCs for its property database. We include these firms regardless of their Bloomberg classifications. At year-end 2003, the SNL database contained 25 REOCs with at least one property included in the investable universe as we define it.

Using these criteria, we include 102 current and acquired REOCs in our ownership counts for the 1998-2003 period. As with REITs, each property is included only if it satisfies the criteria applicable to the specific property type. Data on these firms' property holdings comes mainly from 10-K reports, sometimes supplemented with material directly from the firms.

### Apartment Market

We define the apartment investable universe to include all units in properties with 20 units or more. This criterion excluded from our computations 21 properties held by REITs at year-end 2003, which contained a total of 261 units (averaging 12 units per property).

We base estimates for the universe figures on the Property Owners and Managers Survey conducted by the US Census Bureau in late 1995 and early 1996. This survey determined estimates for the number of rental units in properties by size of the property applicable to the results of the 1993 American Housing Survey, which corresponds roughly to a year-end 1992 figure. We then step the estimates forward based on a simple model of additions and removal, according to the following schedule. The US Department of Commerce provides figures for completions of properties with 20 or more units. The removal rate assumption is ours.

#### Apartment Additions and Removals

Year	Units, Start of Year	Less Removals at 0.3%	Completions*	Units, End of Year
1992	--	--	--	11,667
1993	11,667	35	53	11,685
1994	11,685	35	63	11,713
1995	11,713	35	97	11,775
1996	11,775	35	113	11,852
1997	11,852	36	107	11,924
1998	11,924	36	140	12,028
1999	12,028	36	152	12,144
2000	12,144	36	161	12,268
2001	12,268	37	157	12,389
2002	12,389	37	171	12,523
2003	12,523	37	155	12,641

Sources: US Census Bureau; Prudential Real Estate Investors \*20 units or more

### Office Market

The investable universe includes all private-sector office space that is tenant-occupied or vacant and offered for lease, defined in square footage terms. No minimum size applies for this property type. In fact, REIT ownership of office properties appears to include many smaller investments. At year-end 2003, for example, about 800 office properties held by REITs, which is about 20% of the total number of their properties, were smaller than 30,000 square feet.

McGraw-Hill Construction Dodge (Dodge) provided estimates for the total stock of office properties for the year-end periods from 1995 to 1998 and provided baseline estimates for the

private-sector portion for the year-end periods of 1999 to 2002. CB Richard Ellis-Torto Wheaton Research (TWR) supplied the baseline estimate for the tenant-occupied portion of total stock for both intervals. Beginning with year-end 2003, we estimated total stock by averaging stock growth estimates for offices from Property & Portfolio Research (PPR) and TWR. Some of the office space in the universe is multi-use, containing retail space, which we estimate to comprise less than 5% of the investable universe.

#### Investable Universe – Office

Year-End	Total Stock*	Private Stock*	% Private	Leased/ Offered	Stock Growth	Invest. Univ.*
1995	10.19		83.9%	87.0%		7.44
1996	10.23		83.9%	87.0%		7.47
1997	10.28		83.9%	87.0%		7.51
1998	10.37		83.9%	87.0%		7.57
1999		8.8		87.0%		7.68
2000		9.1		87.0%		7.88
2001		9.3		87.0%		8.07
2002		9.5		87.0%		8.26
2003					1.26%	8.37

Sources: McGraw-Hill Construction Dodge; Property & Portfolio Research; Torto Wheaton Research \*Bil. sq. ft.

#### Warehouse Market

We define the investable universe to include private, non-manufacturing, tenant-occupied or leasable warehouse space in properties with 25,000 square feet or more. At year-end 2002, only 125 properties, comprising about 2.2 million square feet of warehouse space controlled by public REITs and representing 5% of properties and 0.7% of space, were smaller than this lower limit. This is far below the estimated proportion of the total universe comprising properties of this size – perhaps 30,000 properties with a total of 500 million square feet.

Dodge provided the baseline estimates for total stock through 1998 in the industrial category for all industrial structures and for private stock through 2002. We applied adjustments supplied by Dodge and TWR. For year-end 2003, we estimated total stock by averaging stock growth estimates for warehouse space provided by PPR and TWR. The investable universe stock of warehouse space normally increases at about 2% annually. In 2002, the pace of new construction slowed drastically, which produced a noticeable slowing of new completions in 2003.

#### Investable Universe – Warehouse

Year	Total Indust.*	Private Indust.*	% Private	% Warehouse	Leased/ Offered	% > 25,000 sq. ft.	% Stock Growth	Invest. Univ.*
1995	7,526		86.0%	84.0%	66.0%	87.4%		3,136
1996	7,667		86.0%	84.0%	66.0%	87.4%		3,195
1997	7,828		86.0%	84.0%	66.0%	87.4%		3,262
1998	8,009		86.0%	84.0%	66.0%	87.4%		3,337
1999		7,080		84.0%	66.0%	87.4%		3,430
2000		7,320		84.0%	66.0%	87.4%		3,547
2001		7,573		84.0%	66.0%	87.4%		3,670
2002		7,833		84.0%	66.0%	87.4%		3,796
2003							1.26%	3,843

Sources: McGraw-Hill Construction Dodge; Property & Portfolio Research; Torto Wheaton Research \*Mil. sq. ft.

## Hotel Market

<b>Investable Universe – Hotel</b>	
<b>Year-End</b>	<b>Millions of Rooms</b>
1995	3.59
1996	3.70
1997	3.84
1998	3.98
1999	4.12
2000	4.22
2001	4.30
2002	4.37
2003	4.42

Source: Smith Travel Research

The universe consists of the total number of rooms in lodging facilities with 20 or more rooms. Smith Travel Research, a nationally recognized firm that tracks hotel data, provided us with the current estimate for the lodging sector universe.

Smith Travel reported that the US had more than 38,000 lodging facilities offering about 4.4 million rooms at year-end 2002. Growth of the hotel universe registered a moderate 1.1% in 2003, continuing a pattern of gradual slowing of stock growth that dates from 1998. Construction last peaked in 1997, when the hotel stock grew by 3.9%.

## Retail Market

We partition the retail universe into two segments based on the gross leasable areas (GLA) of individual properties. The mall segment consists of all operating properties reporting a GLA of 400,000 square feet or more. This division is consistent with the one used by the International Council of Shopping Centers. The non-mall segment consists of all other retail properties. Measurement of the public-market penetration in the retail sector is based on the number of properties.

A database of retail centers maintained by the National Research Bureau (NRB) provides the property counts used to define the investable universe. This database contained 40,386 properties in its most recent release (June 2004), an increase of 570 retail properties, or 1.4%, from the 2003 database. Virtually all of the properties reported a GLA, allowing us to divide the database into separate estimates for the mall and non-mall universes. In addition, we use fields indicating the property status (used to exclude properties that are planned, under construction or not operating) and the completion year to provide counts for each year-end. We obtained the following counts for the investable universe based on the data in this year's NRB database.

The non-mall figures are higher by 120 to 190 properties for all years in this study compared with our prior study, while the mall figures are nearly identical, except for 2002, which increased by nine. About two-thirds of the new properties in this database carried a year built prior to 1996; most of these were small retail properties. The additions raised the non-mall total. Also, some centers were reclassified due to changes in reported GLA. The current estimates are consistent with the current NRB database.

<b>Investable Universe – Retail</b>		
<b>Year</b>	<b>Malls</b>	<b>Non-Malls</b>
1995	1,492	35,140
1996	1,537	35,627
1997	1,597	36,085
1998	1,641	36,503
1999	1,701	36,911
2000	1,747	37,250
2001	1,809	37,594
2002	1,860	37,869
2003	1,896	38,063

Source: National Research Bureau

## **Appendix B: Reconciliation of Current Estimates with Prior Estimates**

With the release of each report, we encounter many statistical changes that create variances from figures we previously reported. The variances are caused by three types of differences between the current and prior data values and key dates that apply to specific properties, data for properties not previously reported and revisions to statistics we use to estimate the investable universe. Also, we sometimes refine the methodology, improving the consistency and precision of the estimates and, in some cases, modifying the database filtering logic used to prepare our estimates. The table below shows our estimates for the sources and magnitudes of the variances between our previous year-end 2002 estimates and our revised year-end 2002 estimates.

Three major adjustments are associated with the revised figures: 1) those caused by changes in our methodology, which are not material this year; 2) those arising from data revisions and property additions to and deletions from the SNL property database; and 3) those affected by changes in the estimate for the property-type universe.

<b>Public Market Penetration Reconciliation – Year-End 2002</b>						
	<b>Apart.</b>	<b>Ware.</b>	<b>Office</b>	<b>Mall</b>	<b>Non-Mall</b>	<b>Hotel</b>
Year-End 2002, Prior Report	7.8%	8.6%	7.6%	36.3%	12.9%	14.6%
Plus: Net from DB Changes	0.1%	-0.2%	0.0%	0.2%	-0.04%	1.4%
Plus: Universe Est. Changes	0.0%	0.0%	0.0%	-0.2%	-0.06%	+0.3%%
Current Year-End 2003	7.9%	8.4%	7.6%	36.3%	12.8%	16.3%

## **Methodology Changes**

This year, we made one relevant change to the share-calculation methodology. We explicitly addressed the occasional movement of properties that change their status and affect whether we count them in our universe. In the past, four separate status changes have occurred with sufficient frequency to complicate the calculation of ownership shares: 1) changes in joint-venture status from or to controlling ownership; 2) completion of projects previously listed as under construction or planned; 3) properties owned by firms that change to or from REIT status; and 4) properties in the apartment, warehouse and mall retail categories that previously reported no size (a size criterion applies to properties in these categories) but began to report size in 2003.

The principal effect of these changes was to adjust some of the REIT/REOC shares because we now track this status change more effectively.

### **REIT Data Revisions in the Securities Databases**

Each year, many revisions in and additions to the SNL Securities database occur, including changes in the size of properties, their joint venture status and key action dates (dates purchased and sold, in particular). We also occasionally make changes to the database of REOC holdings we have created.

This year, the revisions to the hotel category were relatively large, as were the adjustments in both retail categories. More modest adjustments appeared in the warehouse sector; most came from reclassifications of individual properties to a non-warehouse category, typically “general industrial.” We have not encountered this kind of change too often, but when a conflict occurs, we always assume that information in the current database is correct.

The hotel adjustment largely involves the inclusion of the properties owned by two firms that previously had been excluded – La Quinta Inns (LQI) and Extended Stay America (ESA). In both cases, ambiguities regarding their status as REITs or REOCs led to their erroneous exclusion from both groups in last year’s report.

We counted, on net, four more mall properties this year for 2002, consisting of six more REIT-owned malls and two less REOC-owned malls. However, 18 firms reported a slightly different number of mall properties in 2003 without identifying specific acquisitions. This was an unusually large number of revisions. Some of them stemmed from the completion of development activities that increased the size of the property into mall status.

We revised downward by 14 properties the number of non-mall assets owned by REITs and REOCs at year-end 2002. This produced a less than 0.1 percentage point drop in the penetration ratio. An increase in the size of the universe contributed another small downward adjustment. The pair taken together produced a 0.1 percentage point drop in the ratio.

### **Size of Universe Adjustments**

This year, we simplified the stock estimation process for the office and warehouse categories that effectively freezes prior estimates for the stock. Accordingly, we will no longer encounter annual changes in historical stock estimates for these property types.

Two of our data sources, the NRB database of retail properties and Smith Travel Research, which provides information on the lodging sector, routinely revise their figures. Each year, we revise penetration estimates for prior years to reflect adjustments to their estimates of total stock. This year the estimates of the mall universe for 2002 increased by nine properties, a change of about 0.5%. The count for other retail centers for 2002 increased by 190 properties, also about 0.5% of the prior total. Historical estimates for the hotel universe decreased by about 14,000 rooms, or about 0.3%. Although not identical, the estimate revisions were roughly equal in size for the entire 1996-2003 report period.

The Investment Research Department of Prudential Real Estate Investors (US) publishes reports on a range of topics of interest to institutional real estate investors. Individual reports are available free of charge in hard copy or via the Web at [www.prudential.com/prei](http://www.prudential.com/prei). Reports may also be purchased in quantity for conferences and classes. To either receive reports, update contact information or to be removed from our distribution list, please e-mail us at [prei.reports@prudential.com](mailto:prei.reports@prudential.com), or telephone our US office at 973.683.1745.

Prudential Real Estate Investors (US)  
8 Campus Drive  
Parsippany, NJ 07054  
USA

Tel 973.683.1745  
Fax 973.734.1319  
Web [www.prudential.com/prei](http://www.prudential.com/prei)  
E-mail [prei.reports@prudential.com](mailto:prei.reports@prudential.com)

© Copyright 2004, Prudential Real Estate Investors (US)

Prudential Real Estate Investors (US) is a business unit of Prudential Investment Management, Inc., a registered Investment Adviser and indirect wholly owned subsidiary of Prudential Financial, Inc., Newark, New Jersey. Prudential Real Estate Investors (US) is not affiliated with Prudential plc (Pru UK).

Prudential or its affiliates may have relationships with some of the companies shown in this report, including holding an equity position. This report is for information purposes only and is not intended to be a recommendation to buy or sell the security of any particular company.