Old REITs and New REITs

Brent W. Ambrose
University of Pennsylvania

and

Peter Linneman
University of Pennsylvania

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Contact Author: Brent W. Ambrose
Visiting Associate Professor
Wharton School of Business
University of Pennsylvania
312 Lauder-Fischer Hall
256 S. 37th St.
Philadelphia, PA 19104-6330
(215) 898-0930
ambroseb@wharton.upenn.edu

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Abstract

This paper outlines the growth and development of the equity REIT market. We document that a fundamental shift occurred in the real estate market in the early 1990s. We trace the shift in the REIT market to three primary factors: the ascendance of the 'self-advised' / 'self-managed' REIT, the advent of the UPREIT structure, and the paired-shared phenomenon. By analyzing these factors, we classify REITs as belonging to either the old-style or new style. Our analysis shows that new REITs are different from old REITs and are dominating the market. However, as old REITs transform themselves to compete with the new REITs, the differences have diminished over time.

Old REITs and New REITs

1. Overview of the REIT market.

Between 1990 and mid-1997, 114 new equity real estate investment trusts (REITs) were created. By year end 1997, the equity REIT market valuation (equity only) topped $135 billion, up from a mere $5.6 billion in 1990. In this paper, we outline the growth and development of the equity REIT market. We focus on the fundamental shift that occurred in the real estate industry during the early 1990s, and note that REITs "created" during the 1990s are significantly different from older REITs. In fact, older REITs are playing catch-up in order to remain competitive with the new REITs that are rapidly dominating the real estate industry. We believe that REITs will lead consolidation of the real estate industry, following in the footsteps of many other capital intensive industries.

Why Trusts?

Investment trusts have a long history in the United States. Originally, trusts were recognized as passive investments which distributed trust income to shareholders, and thus were not taxed at the corporate level. In the 1930s, the Supreme Court ruled that corporate-like trusts must be taxed as corporations. The securities industry successfully lobbied for legislation which exempted regulated investment companies and mutual funds from federal taxation based on the theory that small investors need mutual funds to efficiently participate in the stock market. In 1960, Congress passed legislation giving real estate investment trusts (REITs) tax treatment similar to mutual funds, allowing small investors to have tax efficient ownership of real estate. As such, REIT earnings and capital gains are taxed only as they are realized by the individual shareholder.

In exchange for this single taxation treatment, numerous regulations exist controlling the entity's organization form, income, operations, dividend policy, and assets. In brief, in order to qualify as a REIT, today the company must:

- have fully transferable shares;
- have a minimum of 100 shareholders;
- not be a closely held corporation;
- be managed by one or more trustees or directors;

- derive at least 75 percent of its gross income from real property rentals, loans, gain from sale or other distribution of real property or real estate assets, abatements and refunds on taxes, and income and gain derived from foreclosure property;
- derive no more than 30 percent of its gross income from the sale of real property held less than 4 years or securities held less than 12 months;
- distribute at least 95 percent of its taxable income (excluding net capital gains);
- invest at least 75 percent of its assets in real estate or real estate mortgages, cash and cash items (including receivables, and government securities);
- invest no more than 5 percent of its assets in the security of any one issuer; and
- own no more than 10 percent of the outstanding voting securities of any one issuer.

These provisions severely limit the ability of a REIT to retain earnings and generate ancillary operating income relative to the corporate format.

REITs, unlike mutual funds, are prohibited from short-term trading of properties. Instead they are to be owners long-term property portfolios. Prior to 1990, REITs were neither growth oriented real estate operating companies nor property trading mutual funds, but rather relatively passive long-term real estate asset owners. The new REITs, in contrast, are fully integrated growth oriented real estate operating companies with operating margin objectives similar to industrial operating companies (which also rarely trade their operating assets). Given this change in the market, central questions which arise are:

- why are these new REITs different from older REITs?
- does it matter in terms of performance?
- have the old REITs been able to compete with the new REITs in their respective industries?

A key insight is that most of the new REITs were active property operators prior to going public as a REIT. Many of these firms went public using the REIT format to access public equity in order to reduce their crushing (and maturing) debt levels, and to fund their growth objectives. Once delevered, these new REITs have become low capital cost operators, fueling a wave of consolidation. We conclude that, old REITs will survive to the extent they transform themselves to compete with new REITs, a transformation that has already begun.

Advantages and disadvantages?

The primary advantage of the REIT structure over a regular corporate structure is the avoidance of corporate taxation. In exchange for this benefit REITs live with a variety of capital and operating restrictions. During the 1980s when debt was easy, development abounded, and tax laws provided rapid depreciation write-offs, owner/developers had little or no taxable income . In that environment the REIT structure offered no tax or capital market advantage in exchange for the many operating restrictions. As a result, it is hardly surprising that few major operators chose to be REITs. In the 1990s, the environment dramatically changed, with lower depreciation write-offs, hard to obtain debt, and limited development. Together these factors increased taxable income and the need for access to large pools of equity, causing many leading operating companies to become REITs.

A key disadvantage is that REITs are restricted in their ability to retain earnings in order to internally fund their growth. As a result, in order to acquire, maintain, and develop properties, REITs must continually raise substantial equity while simultaneously disgorging large amounts of cash via dividends. This process entails excess fees and the uncertainty of successful secondary equity placements. In addition, REITs face significant property trading restrictions and investor concentration restrictions. For example, prior to the 1990s the 'five or fewer' rule limited the ownership position of large shareholders in order to promote REIT ownership among small investors, severely limiting the stock liquidity for institutional investors. The 1993 tax law modified this restriction, by creating a 'look-through' provision that allows institutional investor shareholdings to be allocated among their beneficiaries rather than being counted as a single shareholder. This modification greatly enhanced the depth of available REIT capital, as institutional shareholders can now take large positions without violating the "five or fewer" rule.

The Ascendancy of the 'Self-Advised'/'Self-Managed' REIT

One of the key features of REITs in the 1990s is that they are 'Self-Advised' and 'Self-Managed'. As originally envisioned, REITs were to be passive investment vehicles much like mutual funds, except with trading restrictions. As a result, REITs retained 'advisors' who carried out functions similar to portfolio managers. These advisors selected properties and investment strategies for the REIT. However, unlike stock or bond portfolios, real estate assets require active management to lease and operate the property. Thus, REITs also had to engage 'property managers' who were responsible for the operation of the property. In the late 1980s, several REITs recognized the inefficiencies and inherent conflicts of interest between these

'advisors' and 'managers', and the REIT shareholders resulting from the fact that fee structures were not tied to REIT performance.[1]

This conflict between advisor/managers and the REITs was a serious detriment to growth in the industry. Without the ability to actively manage assets, traditional developers/operators risked losing control of their properties upon conversion to REIT status. In the late 1980s, private letter rulings from the IRS allowed REITs to assume responsibility for selecting investment properties and managing assets, allowing them to obtain 'self-advised' and 'self-managed' status.[2] The importance of eliminating these conflicts of interests was not widely recognized until after the Kimco IPO in 1991. However, since then the stock market has forced almost all REITs to be 'self-advised/self-managed'.

The importance of the UPREIT structure.[3]

The innovation that turbo-charged the REIT boom in the 1990s was the creation of the UPREIT (umbrella partnership REIT) structure, which accounts for two-thirds of outstanding new REIT shares (on a fully diluted basis). The UPREIT, which first appeared in 1992, overcame the undesirable capital gain consequences associated with owner/operators organized as partnerships transforming into REITs. Equally important, the UPREIT structure also created a tax efficient currency for acquiring property partnerships, as UPREITs can defer the seller's tax liabilities by placing properties into a partnership in exchange for UPREIT partnership interests which are convertible to REIT shares (the conversion is a taxable event). Limited partners receive dividends as if they were REIT shares and voice their interest in the REIT's operation via board representation.

As is true of all governance structures, conflicts may arise with UPREITs. The most unique is the conflict of interest which can exist between the new shareholders and the original operators if the new shareholders desire to sell the operator's original properties, triggering

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[1] The conflict of interest between REITs and outside advisors and management and the resulting impact on value is widely recognized. For example, Howe and Shilling (1990) examine the effect of advisor selection of financial performance while Hsieh and Sirmans (1991) and Wei, Hsieh, and Sirmans (1995) examine the performance of REITs with close business relationships with their advisors. Sagalyn (1996) gives a general overview of the various conflicts of interest in the REIT structure.

[2] New Plan Realty Trust (NPR) claims to be the first REIT to convert in August 1988. However, several other REITs either had gone public as 'self-advised/self-managed' as early as 1986 or were also working on converting at the same time.

capital gain taxes for the original operators. However, for most new REITs this conflict is of limited importance as they do not generally desire to sell their core operating assets. Nonetheless, it underscores the need for strong and independent REIT boards.

The Paired Share Phenomenon

A recent innovation with important implications for the growth of ancillary income for REITs is the recognition of the value of various strategic pairing structures. A true paired share REIT is a REIT whose shares mechanically trade with those of an operating company. Both firms have essentially the same management, boards, and trade together. More recent strategic pairings are spinoff operating companies with closely aligned management and boards, and where shareholders are encouraged to trade the share in unison. To the extent they trade together, pairing structures overcome the conflicts of interest inherent in engaging a third party operator for services which REITs are prohibited from performing.

In the paired share format, the REIT owns the real property assets while the associated operating company provides income producing activities (e.g. operating hotels, hospitals, or nursing homes). The operating company rents its properties from the REIT (at "market prices") and generates operating income that is not REIT qualified. Since, the operating lease between the REIT and the operating company is limited by "market rate" restrictions, the paired share REIT theoretically cannot artificially set the rent so as to eliminate all operator taxable income (e.g. by setting the lease rate equal to the operating company's taxable income). In reality, all transfer pricing mechanisms have a margin "of error" in terms of "market rates". If this margin of error is 10 percent, the tax advantage for the paired share REIT is about 3 to 4 percent of the property value. For example, assume a property value of $1,000 with a 'true' market rent of 10 percent ($100). If the paired share REIT leases the property at an 11 percent rental rate ($110), a 10 percent rental margin of error exists in the transfer price. This yields an annual tax savings of $3.6 (at 36 percent tax rate), for a present value of roughly $36 per $1000 (at a 10 percent perpetuity rate). Obviously, greater transfer pricing errors generate commensurately larger advantages for the strategic pairing structures.

The paired share structure has the greatest potential advantage for properties which require significant, daily management in order to generate value (for example, hotels, nursing homes, and health care facilities) or where substantial non-qualifying income opportunities

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[3] This section relies heavily on the discussion of UPREITs in Singer (1996). See also Kleiman

exist. There are only four truly paired share entities, which were created prior to a change in the tax code which eliminated this structure. Starwood Hospitality and Patriot Hospitality are the best known paired share REITs utilizing this structure in the hotel industry.

A number of new REITs are attempting to duplicate the benefits of a true paired share structure, via strategic pairings. The shares of the operating company trade separately from those of the REIT, although shareholders are encouraged to trade them in unison. This structure, called the 'paper-clipped REIT', was created by Richard Rainwater's Crescent REIT. The paper-clip REIT offers the same operating advantages as the true paired share. However, because the shares of the operating company and REIT do not necessarily trade together a conflict may ultimately arise between the two. The real advantage of the true paired share REIT over the paper-clip REIT is that there will never be a conflict of interest between the REIT and the operating company. One suspects that is only a matter of time before the paper-clip REIT structure is subjected to a hostile investor seeking "greenmail". Specifically, a hostile investor will purchase a significant minority stake of the operating company shares, but not the REIT shares (thus not benefiting from the higher lease rates paid to the REIT), and then threaten to sue management for violating their fiduciary responsibility to the operating company by agreeing to excessive leases with the REIT. The potential of such "greenmail" may limit the transfer pricing "margin of error" for paper clip entities, reducing the tax value of the paper-clip structure relative to the true paired share.

What about growth?

The National Association of Real Estate Investment Trusts (NAREIT) reports that between 1971 and October 1997, the number of equity REITs grew from 12 with a total equity market capitalization of $332 million, to 174 with an equity market cap of $134 billion (including operating units, see Table 1). However, at year end 1992 there were only 89 equity REITs in operation with a total equity capitalization of $5.6 billion. Between 1992 and 1993, 46 firms (led by the "who's who" among the private real estate companies) became REITs, with an additional 40 new REITs formed in 1994 with an average equity capitalization of $403 million. Rather than resulting from significant share price appreciation, this phenomenal rate of growth stems primarily from the fundamental shift of assets from private to public ownership both via IPOs and subsequent consolidating acquisitions.

(1993) for an overview of the UPREIT structure.

With the collapse of commercial real estate prices in the early 1990s, commercial banks and life insurance companies were under tremendous pressure to reduce their lending exposure to real estate, just as massive amounts of loans made to private owner/developers in the 1980s were coming due. If they were to survive -- much less grow – private real estate owners had to access capital to repay their maturing debt. Without debt availability and absent borrowing capacity, they had no choice but to execute massive debt-for-equity swaps via IPOs. This also provided them with renewed access to debt markets by restructuring their balance sheets, hence allowing them to become opportunistic purchasers from banks and their less nimble competitors.

2. Fundamental shift.

Two IPOs particularly define the new REIT era: Kimco Realty Corporation and Taubman Centers. Kimco Realty was the first mainstream private operator to become a REIT, thus addressing many of the concerns of institutional investors regarding conflicts of interest, management practices, and regulatory restrictions.

Kimco Realty Corporation began operations in 1966 as The Kimco Corporation, upon the contribution of several shopping center properties owned by its principal stockholders. Growth through its first fifteen years resulted primarily from the development of new shopping centers. By 1981, Kimco operated a portfolio of 77 shopping centers. After 1981, the firm expanded into the acquisition of existing shopping centers, adding 188 properties to its portfolio. As was typical of real estate developer/operators during this period, Kimco primarily financed its properties with debt.

In November 1991, Kimco became the first successful REIT IPO since 1988, raising $128 million in equity. To the surprise of many observers, approximately 40 percent of the offering was purchased by institutional investors, in contrast to the 25 to 30 percent typical for old REITs. Kimco used the IPO proceeds to pay down debt, improving its interest coverage ratio rising from 1.4 in 1991, to 3.0 in 1992, to 4.2 in 1993.[4] Armed with restored borrowing capacity, Kimco rapidly became one of the nation's largest shopping center operators, currently having an interest in 319 properties comprising approximately 39 million square feet in 37 states. In short, Kimco demonstrated that an institutional investor appetite existed for REIT shares of

[4] Interest coverage ratio is EBITDA/Interest Expense.

strong operators, that such operators could live with REIT restrictions, and that access to public capital could be used to successfully execute a rapid growth strategy.

Taubman Centers, Inc. was founded in 1950 by A. Alfred Taubman and was incorporated in 1973. One year after Kimco, Taubman Centers Inc. went public in November 1992 as the first UPREIT. As an UPREIT, Taubman Centers (the REIT) holds a 32.5 percent interest in Taubman Realty Group (the umbrella partnership) which was created from the mall portfolio developed and controlled by Alfred Taubman and his institutional partners. The partnership engages in the ownership, operation, management, leasing, acquisition, development, redevelopment, expansion, financing, and refinancing of regional shopping centers.

In its IPO, Taubman raised $295 million in equity which allowed it to repay debt. By structuring the IPO as an UPREIT Taubman retained effective operational control of the portfolio and converted the debt held by the pension funds into equity without triggering a capital gains tax liability. Currently, Taubman Centers has a portfolio consisting of 23 urban and suburban regional and super-regional shopping centers in 11 states. The Taubman UPREIT demonstrated how to defer capital gains, and also signaled that a major operator could operate under REIT restrictions.

The 'New REIT' market.

The Kimco and Taubman public offerings combined with the ability to be 'self-advised' and 'self-managed' inaugurated a new era in the real estate industry. REITs formed after Kimco were primarily private developer/operators tapping into the public equity market to refinance their heavy debt loads, and to provide capital for growth. Since Kimco, all REIT IPOs have dealt with conflict of interest issues, while several old REITs (Starwood and Security Capital being the best known examples) were purchased and transformed into new REITs by entrepreneurs. Thus, we define 'new REITs' as any REIT which has converted to 'self-advised/self-managed' status or went public (or was transformed *ala* Starwood) as a 'self-advised/self-managed' REIT after November, 1991 – the date of the Kimco IPO.[5]

3. Comparing 'new' and 'old' REITs

[5] Any REIT which converted to 'self-advised/self-managed' status prior to November 1991 is also classified as a 'New REIT' as of the conversion date.

Data

The data consists of 139 equity REITs trading on either the New York or American Stock Exchange between 1990 and 1996 with monthly returns available on the CRSP tapes and financial data available from SNL REIT Datasource. Appendix A provides greater detail on the sample construction. The sample is divided into two portfolios. The first portfolio consists of equity REITs which still retain an outside advisor or property manager. This portfolio primarily represents old-style REITs operating as passive real estate investment vehicles. The second portfolio consists of all REITs which are 'self-advised' and 'self-managed' – the so called new REITs. These represent the new-style REITs organized as fully integrated operating companies actively engaged in managing their assets. It is important to remember that REITs are an organizational/corporate structure and not an industry segment, as REITs are in many industries based on different market segments (i.e. residential, retail, office, hotel, etc.). Since industry composition can distort the analysis of REITs, we analyze old and new REITs controlling for industry effects.

REIT Structure

Table 2 breaks down the subsamples by REIT structure and organizational form. By the end of 1997, 89 percent of the new REITs were organized as UPREITs versus only 31 percent of old REITs (all of which were converts). Looking across industries, with the exception of health care, the majority of new REITs across all property categories are UPREITs, whereas the preponderance of old REITs which have converted to UPREIT status are in the specialty/hotel industry. Interestingly, the UPREIT structure dominates the residential, specialty/hotel, and industrial/office industries. Not surprisingly, these industries are rapidly consolidating, with the UPREITs utilizing their tax efficient "currency" to purchase assets from private partnerships.

All new REITs are infinite life REITs, whereas 21 percent of old REITs are finite-life REITs. This underscores the distinction between the operating company (where equity is infinite lived) and investment manager ("you can only have my money for so long") philosophies of these entities. Interestingly, old REITs do not differ greatly from new REITs in the degree of concentration in terms of property type (Table 3).[6] In fact, 72 percent of new

[6] Data on percent of ownership across property segments was obtained from the *1996 REIT Handbook*.

REITs and 84 percent of old REITs are focused on a single property type (greater than 75 percent of assets concentrated in one property type).[7]

REIT Growth

Figure 1 displays the mean and total equity market capitalization for old and new REITs.[8] Between 1991 and 1996, total old REIT equity market capitalization increased at an annual compound rate of 21.5 percent (from $6.1 billion to $19.5 billion). At the same time, 93 new REITs appeared with total equity market capitalization increasing at an astonishing annual compound rate of 71 percent (from 9 REITs with a total equity market capitalization of $4 billion to 102 REITs with a total equity market capitalization of $102 billion). Not surprisingly, equity market capitalization (common stock plus operating units) has also followed the same pattern with the total equity capitalization of new REITs of $65.1 billion versus $13.1 billion for old REITs (Figure 2).

This dramatic growth in new REIT equity market capitalization is a function of both new REIT IPOs, as well as the conversion of older REITs to more active management formats. For example, between 1991 and 1996, Security Capital Pacific Trust's total equity capitalization grew at a 54 percent annual growth rate (from $132 million to $1.7 billion), while Starwood Hotels and Resort's (formerly Hotel Investors Trust) equity market capitalization increased at an incredible 155 percent per year (from $5 million to $1.5 billion) over the same period. However, the dramatic growth in total REIT equity market capitalization hides the fact that old REITs have actually grown faster than new REITs. The average new REIT equity market capitalization grew at a 14 percent annual rate between 1991 and 1996 (from $447 million to $1 billion) while average equity market capitalization for old REITs grew at a 20 percent annual rate (from $189 million to $557 million). Looking across industry segments, REITs specializing in industrial and residential property have the largest equity market capitalizations, reflecting the general strength in these industries over the past 4 years. Retail, self-storage, and diversified REITs have the smallest equity market capitalizations again reflecting the overall weakness in these industries.

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[7] REIT concentration is defined as the percent of assets held in a single property type. Thus, REITs with greater than 75 percent concentration have more than 75 percent of their assets invested in one property type while REITs with less than 75 percent concentration are invested in several property types.

[8] Total market capitalization is defined as end of year total debt plus the market value of common stock (and partnership units) plus the value of preferred shares.

The difference in average equity market capitalization growth rates does not appear to be due to a greater use of debt financing on the part of old REITs. As Figure 3 shows, between 1994 and 1996, the average ratio of total debt to total market capitalization has remained relatively constant, and equal, for both groups at 35 to 37 percent. In fact, the leverage ratio for old REITs has declined from 49 percent in 1990 to 34 percent in 1993 while it remained relatively constant for new REITs during the same period. During the 1990s, older REITs have swapped debt for equity, leading to a reduction in their debt exposure and increasing their equity market capitalizations. It is interesting to note that the office and retail sectors have the highest debt levels while diversified and hotel REITs have the lowest debt ratios.

While the leverage ratios of old and new REITs are roughly equal today, Figure 3 indicates that old REITs utilize more short-term debt (as a percent of total capitalization) while new REITs utilize more long-term debt. Between 1993 and 1996, old REITs had almost twice the level of short-term debt (5-8 percent for old REITs versus 2-3 percent for new REITs). However, the percentage of short-term debt utilized by old REITs has consistently declined while the percentage of long-term debt has consistently increased. Thus, old and new REITs are converging in their use of debt, with old REITs becoming more like new REITs.

REIT debt/equity ratios (at book value) tell a similar story (Figure 4). Debt/Equity ratios are significantly lower for both old and new REITs during the first part of the 1990s. Again, this reflects an overall improvement in the real estate industry and the ability of REITs to utilize greater amounts of debt as property markets have recovered. Regressing the debt/equity ratio on firm size, controlling for structure, industry and year effects (Table 4), indicates that the debt/equity ratio increases as firm size increases (however, the coefficient is not statistically significant).

Most new REITs are aggressively pursuing growth strategies via acquisitions, and more recently via development. One measure of the success of this strategy is the value of the properties purchased. The implied capitalization rate (NOI divided by average total equity market value) provides a rough proxy for the pricing of REIT assets – particularly for hotels and residential properties as they do not have long-term leases. New REITs consistently have lower implied cap rates than old REITs (Figure 5), suggesting that the market is placing a premium on the management talent of new REITs – signaling that new REITs are expected to experience greater cash flow and value growth rates. Across property segments, office, and self-storage REITs have the highest implied capitalization rates while diversified, residential,

and industrial REITs have the lowest implied cap rates. Interestingly, a regression of implied cap rates on firm size (Table 4) indicates that as firm size increases, the overall implied capitalization rate decreases (statistically significant), indicating adds value due to liquidity and management.

REIT Revenue and Expenses

One of the driving forces behind the consolidation in the real estate industry is the belief that the new REITs, as operating companies, are able to improve profit margins by controlling expenses. Firms having a small cost advantage (from all sources including general and administrative, revenues, capital, etc.) in a highly competitive, commodity type industry are at a distinct long-term competitive advantage. Thus, to the extent that new REITs have a cost advantage, the will eventually dominate their respective industry. The ratio of net operating income (NOI) to total rental revenue (gross income), Figure 6, reveals a small advantage of new REITs, with new REIT net profit margins were higher than old REITs. Between 1992 and 1996, new REIT profit margins averaged near 70 percent while old REIT margins were only 64 percent. However, as with debt ratios, old REIT margins have improved over time so that by 1996 both old and new REIT profit margins were approximately 69 percent.

Not surprisingly, significant differences in profit margins exist across property types. For example, looking at diversified REITs, we see that new REITs have profit margins of 67-75 percent between 1993 and 1996, while old REIT profit margins were below 50 percent. A similar pattern exists in the industrial and office sectors, with new REIT profit margins in excess of 75 percent and 65 percent, respectively, while old REIT profit margins are consistently lower. Interestingly, retail REIT profit margins are equal with neither corporate sector dominate. On average, health-care and hotel REITs have the highest profit margins, while diversified and residential REITs have the lowest profit margins. The regression of profit margin on firm size indicates a modest (not statistically significant) increase in profit margin as firm size increases.

The difference in profit margin is largely attributable to the ability of new REITs to more aggressively control expenses. For example, in 1992, old REIT General and Administrative (G&A) expenses as a percent of total revenue averaged 14.4 percent while new REIT G&A expenses averaged just 4.8 percent of total revenue (Figure 6). By 1996, this gap had declined dramatically with old REIT G&A expenses averaging just 6.1 percent compared with a 5.3 percent rate for new REITs. Old REITs are being forced to reduce their overhead expenses to match market expectations ushered in by the new REITs. This trend is most evident in the

residential and retail sectors, where old REIT G&A expenses were in excess of 20 percent and 15 percent, respectively, during the early 1990s. They have declined to less than 10 percent in the latter part of the 1990s. However, new residential and retail REITs have maintained relatively stable G&A expenses below 5 percent and 6 percent, respectively. Interestingly, in the office and industrial sectors, both old and new REITs have maintained relatively steady G&A expenses under 10 percent, with old REITs actually having slightly lower expense ratios than new REITs.[9] On average, office and diversified REITs have the highest G&A expense ratio while self-storage REITs have the lowest. Regression analysis on the effect of firm size on G&A expenses (controlling for industry and time effects) indicates that larger firms have lower (not statistically significant) G&A expense ratios (Table 4).

On the revenue side, a similar pattern emerges. Between 1993 and 1996, average new REIT rental revenue (operating revenue) accounted for approximately 93 percent of total revenues (Figure 7). In 1993 rental revenue accounted for nearly 87 percent of old REIT total revenue. By 1996, the gap between old and new REITs had disappeared, with rental revenues accounting for approximately 92-93 percent of total revenue. However, old REITs supplemented the gap in rental revenue by obtaining a greater percent of their total revenue from selling assets (Figure 7). Looking at individual industries, rental revenue for new REITs is a consistently higher proportion of revenue in the residential and retail market segments. In the office and industrial sector the reverse holds with old REITs having a consistently higher proportion of their total revenue attributable to rental revenue. However, on average, self-storage, residential, and industrial REITs have the highest proportion of rental revenue ratio while diversified and health-care have the lowest. Regression analysis indicates that firm size is not a statistically significant factor in explaining rental revenues (Table 4).

REIT Cash Flow and Profitability

Given the differences in revenue and expenses between old and new REITs, it is not surprising that new REITs had higher rates of profitability (Figure 8). For example, between 1991 and 1996, new REIT return on book equity (ROE) averaged 9.5 percent compared to just 0.5 percent for old REITs.[10,11] What is surprising is that while old REITs are beginning to look more

[9] Tables showing the breakdown by industry segment are available from the authors upon request.
[10] Return on equity (ROE) is defined as net income as a percent of average total equity.
[11] Excluding 1995 as an outlier, old REITs had an average ROE of 2.1 percent.

like new REITs with respect to debt levels and operating characteristics, their return on equity has not kept pace. On average, diversified and health-care REITs had the highest ROE while REIT specializing in office properties had the lowest. Controlling for industry, time and structure effects, our regression analysis indicates that REIT ROE increases by 3 percent with firm size (statistically significant).

One hypothesis is that since new REITs are more like industrial operating companies, they will – within the limits of REIT tax law – desire to retain a greater proportion of cash available for distribution (CAD) in order to take advantage of growth opportunities. With the exception of 1995, throughout the 1990s we find that new REITs had lower payout ratios (dividends paid as a percent of FFO) than old REITs (Figure 9). For example, in 1996 the average payout ratio for old REITs was 95 percent whereas new REITs had an 80 percent payout ratio. This supports the contention that new REITs are utilizing retained cash flow to support their substantial asset acquisition programs. Looking across industries, health-care REITs had the highest average payout ratio while office property REITs had the lowest. This is also driving the consolidation taking place in the office market, where REITs are utilizing retained earnings to help fund their acquisition strategy. We find via regression analysis that the payout ratio increases by 3 percent with firm size (statistically significant).

Returns

Table 5 reports the yearly value-weighted portfolio returns for old and new REITs by property type. With the exception of the period 1991-1993, new REITs have consistently higher returns than old REITs, with both new and old REITs outperformed the stock market between 1992 and 1994. New REITs in the specialty/hotel segment had the highest returns in 1995 and 1996 reflecting the rapid growth and consolidation taking place in this industry. The office sector followed closely, with new REITs outperforming old REITs for the period from 1994-1996. Between 1992 and 1994, new residential REITs significantly outperformed old residential REITs. For example, in 1992 new residential REITs returns were 21 percentage points higher than for old residential REITs. However, by 1995 this trend had reversed, with old residential REITs outperforming new REITs, and in 1996 old and new REITs were virtually identical. Looking across all industries, the spread between old and new REIT returns is declining reflecting that old REITs have become more efficient in order to compete with new REITs. However, with the exception of the residential and health-care markets, new REITs continue to enjoy a return premium relative to old REITs.

REIT Betas

Beta measures the systematic variation in returns relative to the market. To the extent that new REITs are different from old REITs, we expect to find significant differences in the factors impacting REIT systematic risk. We test this hypothesis by regressing individual REIT estimated betas on firm size and other financial factors (payout ratio, debt ratio, asset growth, FFO growth, and implied capitalization rate), controlling for property market segment, and old/new REIT status. We also include a series of dummy variables to control for yearly time effects.

Yearly REIT equity betas are estimated using the CAPM framework by regressing the previous 24 months REIT returns against the market index,

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t} \qquad (1.)$$

where $R_{i,t}$ and $R_{m,t}$ represent the monthly returns for REIT i and the market portfolio in excess of the risk-free rate for the 24 prior months, α_i is the regression intercept, β_i is the estimated equity beta for REIT i, and $\varepsilon_{i,t}$ is the standard error term. Thus, December 1993 betas are estimated by regressing the REIT returns less the risk-free rate against the CRSP value-weighted market index less the risk-free rate for the period from November 1991 to December 1993.[12]

We find that new REITs have significantly higher betas than old REITs (Table 6). The positive coefficient on the dummy variable SASM, which controls for 'self-advised/self-managed' REIT status, indicates that new REITs have betas that are approximately 15 percentage points higher than old REITs (although not statistically significant). This reflects the market's perception of these firms as new (unproven) growth stocks. We also include variables controlling for financial factors such as firm size, capital structure, and property type. The results indicate that firms with higher FFO growth rates and higher implied capitalization rates have higher betas. However, larger firms and firms with greater leverage have lower betas (although not statistically significant).

Relative to the base year of 1991, REIT betas are lower in 1995 and 1996. Except for 1994, the coefficients for the yearly dummy variables decrease over time suggesting that REIT betas are systematically declining over time. This is consistent with the notion that real estate market fundamentals have steadily improved over the 1992-1996 period, reducing real estate

[12] The monthly risk-free rate is proxied using CRSP Government Bond Index for bonds less than 12 months to maturity.

risk. Combining the yearly impact with the results concerning new REIT status, we see that the market considers new REITs as less risky, with the risk premium dissipating over time.

Although not statistically different, diversified and office market REITs have the highest betas followed by retail and self storage segments. Industrial REITs have the lowest betas.

Weighted Average Cost of Capital (WACC)

As a final test of the difference between old and new REITs, we examine the weighted average cost of capital (WACC). Utilizing the betas estimated above, we calculate the WACC for each REIT as

$$WACC = k_d\left(\frac{D}{TC}\right)+k_p\left(\frac{P}{TC}\right)+k_e\left(\frac{S}{TC}\right) \qquad (2.)$$

where $TC = D+P+S$ and k_d, k_p, and k_e are the cost of debt (D), preferred stock (P), and common stock (S), respectively. The cost of debt and preferred are estimated as the ratio of total interest cost to book value of debt and preferred dividends to book value of preferred stock, respectively. The cost of equity is estimated via CAPM.

To test the hypothesis that new REITs are different from old REITs with respect to their cost of capital, we regress the individual REIT WACC on firm size and other financial factors (payout ratio, debt ratio, asset growth, FFO growth, and implied capitalization rate), controlling for property market segment, and old or new status (Table 7). We also include a time trend variable to control for changes in WACC over time.[13] As expected, we see that larger firms (as measured by the log of firm equity market capitalization) have lower cost of capital than small firms (not statistically significant). However, it is interesting to note that REITs with higher FFO growth rates have a higher (significant at the 5 percent level) cost of capital while REITs with higher asset growth rates have lower (significant at the 1 percent) WACCs. Firms with higher debt ratios have a significantly lower cost of capital, but have higher risk. However, the cost of capital increases with the percentage of short-term debt (although not significant). We also note that a significantly negative relationship between the 10 year Treasury bill rate and REIT WACC. The results indicate that every one point increase in the Treasury bill rate corresponds to a 54 basis point increase in the WACC.

The hotel sector has the highest cost of capital followed by office REITs with a cost of capital 0.8 percentage points below the hotel industry. Both diversified and health care REITs have similar costs of capital at 2.2 percentage points below the hotel industry. However, residential REITs are the only industry with statistically significantly lower capital costs, at 3.5 percent below hotels. Finally, the estimated coefficient for new REITs, SASM, is statistically insignificant indicating that no discernible difference exists.

As a further measure of REIT cost of capital, we also calculate each REIT's Economic Value Added (EVA®), where EVA® is defined as net operating profit after taxes minus the capital charge.[14] Capital charge is found by multiplying each REIT's WACC by its capital employed. In essence, companies create shareholder wealth when after-tax profit is above the cost of capital (or positive EVA®). The spread between return on capital (ROC) and WACC is an indicator of profitable investment activity. Positive and increasing spreads indicate a firm which is generating profits in excess of its costs of capital. Table 8 presents the results from regressing the EVA® spread on firm size and other financial factors (payout ratio, debt ratio, asset growth, FFO growth, and implied capitalization rate), controlling for property market segment, and old or new status. Larger REITs generate higher EVA® spreads (statistically significant). Although not large, this result confirms industry Linneman's (1997) hypothesis that larger REITs will dominate the industry due to their lower capital costs. The results also confirm the notion that short-term debt is expensive and reduces profitable investments. The statistically significant negative coefficient for short-term debt percent indicates that investment prospects are harder to exploit due to limited borrowing capacity as short-term borrowing increases.

It is interesting to note that health care and diversified REITs have the highest EVA® spreads relative to hotels (although not significant) while office REITs have the lowest spread (again, not significant). The lack of statistical significance on the industry variables suggests that significant variation exists across individual REITs in each industry.

4. Conclusion

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[13] Due to lack of sufficient time series for some property market segments, interactions of dummy year variables with property market indicators created singularity problems. Thus we were forced to estimate the model utilizing a linear time trend.

[14] See Stewart (1991).

In this paper, we outline the growth and development of the equity REIT market. During the early 1990s, a fundamental shift occurred in the real estate industry which lead to the creation of many 'new' REITs. This paper documents the differences between 'old' and 'new' REITs and notes that the 'new' REITs are rapidly dominating the real estate industry. Our analysis confirms that older REITs are quickly transforming themselves to remain competitive with the new REITs.

We trace the shift in the REIT market to three primary factors: the ascendancy of the 'self-advised' / 'self-managed' REIT, the advent of the UPREIT structure, and the paired-shared phenomenon. These innovations represented a means for either controlling the inherent conflicts of interest that exist in the REIT structure or provided a flexible structure enabling new REITs to purse a growth strategy. Using a dataset of 139 equity REITs, we examined differences between old and new REITs with respect to operating structure, growth prospects, operating revenue and expenses, cash flow and profitability, equity returns, betas, and capital costs. Controlling for differences in industry (property) type, our analysis supports the position that new REITs are different from old REITs, but that the differences have diminished over time.

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Table 1
Growth in Equity REIT Market Capitalization

Year	Equity REITs	Market Cap ($ mil)	Operating Units ($ mil)
1971	12	$332	-
1972	17	$337	-
1973	20	$336	-
1974	19	$242	-
1975	23	$276	-
1976	27	$410	-
1977	32	$538	-
1978	33	$576	-
1979	32	$744	-
1980	35	$842	-
1981	36	$976	-
1982	30	$1071	-
1983	26	$1783	-
1984	25	$2286	-
1985	37	$3314	-
1986	45	$4390	-
1987	53	$4759	-
1988	56	$6142	-
1989	56	$6770	-
1990	58	$5552	-
1991	86	$8786	-
1992	89	$11009	-
1993	135	$26082	-
1994	175	$38812	$7270
1995	178	$49913	$8210
1996	166	$78302	$11710
1997*	174	$118511	$15269

Note: Value of operating units not available prior to 1994. 1997 is as of October.

Table 2
REIT Operating Structure

Panel A: Old REITs

Market Segment	Structure		Life		Overall Total
	Upreit	Trad.	Perpetual	Finite Life	
Diversified	0	7	7	0	7
Health Care	0	3	3	0	3
Industrial/Office	2	2	2	2	4
Residential	1	0	1	0	1
Retail	0	4	3	1	4
Self Storage	0	2	0	2	2
Specialty/Hotel	6	2	8	0	8
Total	9	20	24	5	29

Panel B: New REITs

Market Segment	Structure		Life		Overall Total
	Upreit	Trad.	Perpetual	Finite Life	
Diversified	4	2	6	0	6
Health Care	0	4	4	0	4
Industrial/Office	13	5	18	0	18
Residential	23	8	31	0	31
Retail	23	18	41	0	41
Self Storage	3	2	5	0	5
Specialty/Hotel	4	1	5	0	5
Total	70	40	110	0	110
Overall Total	79	60	134	5	139

Table 3
Ownership Concentration*

Market Segment	Less than 100% Concentration		100% Concentration		Less than 75% Concentration		75% Concentration	
	Old REITs	New REITs	Old REITs	New REITs	Old REITs	New REITs	Old REITs	New REITs
Diversified	2	3	1	1	2	3	3	1
Health Care	0	0	2	4	0	0	2	4
Industrial/Office	1	8	1	4	0	3	1	8
Residential	0	10	2	17	0	3	2	24
Retail	1	23	1	8	0	14	0	14
Self Storage	1	0	1	4	0	0	2	4
Specialty/Hotel	0	2	1	2	0	1	1	7
Total	5	46	8	40	2	24	11	62

* - 40 REITs had missing or incomplete property segment concentration information.

Table 4: Regression Analysis of the impact of REIT size (log of market capitalization, LMKTCAP) controlling for industry, year, and structure (SASM) effects

	Debt / Equity		Gain on Sale / Revenues		Rental Rev / Revenues		G&A Exp / Revenues		ROE		NOI / Revenues		Implied Cap Rate		Payout Ratio	
Variable	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.
INTERCEP	-0.31	-0.2	6.34	1.3	85.85	17.2***	-0.02	-0.3	-23.63	-1.9**	72.93	16.3***	14.72	20.1***	83.61	7.0***
LMKTCAP	0.24	1.3	-1.27	-2.0**	-0.06	-0.1	-0.01	-1.5	2.85	1.7*	0.88	1.5	-0.87	-9.0***	2.66	1.7*
SASM	-0.58	-1.2	-1.05	-0.6	3.32	1.9*	0.02	0.9	7.11	1.6	1.06	0.7	-0.44	-1.8*	-14.31	-3.6***
DIV	-0.25	-0.3	2.54	0.8	-10.36	-3.0***	0.16	3.6***	12.02	1.4	-25.73	-8.4***	-2.05	-4.0***	-6.99	-0.9
HEALTH	-0.92	-0.9	1.63	0.5	-5.66	-1.5	0.14	2.8***	14.19	1.5	21.97	6.4***	0.02	0.0	7.83	0.9
INDUST	-0.44	-0.4	2.09	0.6	1.50	0.4	0.13	2.7***	9.51	1.0	-5.22	-1.6	-0.96	-1.7*	-7.02	-0.8
OFFICE	0.06	0.1	2.54	0.7	-0.45	-0.1	0.14	2.8***	7.04	0.7	-14.42	-4.2***	-0.06	-0.1	-13.85	-1.6
MF	0.44	0.5	2.26	0.8	-0.40	-0.1	0.12	3.0***	10.74	1.3	-17.03	-6.2***	-1.15	-2.5**	6.99	1.0
RETAIL	0.66	0.8	3.58	1.2	-7.12	-2.4**	0.13	3.2***	9.76	1.3	-6.73	-2.5**	-0.59	-1.3	9.58	1.4
SELFSTOR	-1.32	-1.2	-1.80	-0.5	3.07	0.8	0.11	2.1**	14.96	1.5	-14.63	-4.1***	0.48	0.8	0.16	0.0
D91	0.10	0.1	8.50	2.4**	3.09	0.8	0.01	0.2	-0.27	0.0	-2.09	-0.6	0.64	1.3	-1.98	-0.2
D92	0.29	0.3	-0.07	0.0	2.74	0.8	0.01	0.2	-1.86	-0.2	-2.02	-0.6	0.49	1.0	-15.15	-1.7*
D93	0.64	0.7	2.05	0.7	6.07	1.9*	-0.05	-1.2	-0.15	0.0	-2.08	-0.7	0.08	0.2	-36.75	-4.6***
D94	1.46	1.6	0.76	0.3	7.26	2.3**	0.01	0.4	7.29	1.0	-1.09	-0.4	0.48	1.1	-14.69	-1.9
D95	0.56	0.6	2.14	0.7	7.64	2.4**	0.02	0.4	-4.45	-0.6	-0.34	-0.1	0.96	2.3**	-7.32	-0.9
D96	0.80	0.9	2.74	0.9	8.06	2.6**	0.02	0.5	-2.71	-0.4	-0.02	0.0	0.74	1.8*	-8.71	-1.1
R^2	0.03		0.04		0.11		0.04		0.04		0.38		.28		.13	
F-stat.	1.08		1.44		4.79***		1.60*		1.40		23.1***		11.5***		5.1***	

*** - significant at the 1 percent level.

** - significant at the 5 percent level.

* - significant at the 10 percent level.

Table 5
REIT Value-weighted Portfolio Returns

Year	Diversified		Health-care		Industrial		Office		Residential		Retail		Self-Store		Hotel	
	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New
1990	-0.339		0.133	0.234	-0.296		-0.531		0.031	-0.009	-0.286	-0.146	-0.346		-1.344	
1991	0.520		0.541	0.522	0.110		-0.162		0.420	0.419	0.294	0.346	0.335		0.042	
1992	0.180		-0.183	0.197	0.369		0.233	0.220	0.145	0.353	0.347	0.198	0.202		0.375	
1993	0.168	-0.066	0.329	0.195	0.322	0.209	0.620	0.456	0.309	0.369	0.172	0.081	0.532		1.358	0.109
1994	-0.084	0.082	-0.023	0.131	0.178	0.151	0.037	0.242	0.001	0.094	-0.018	0.059	0.083	0.170	0.301	-0.092
1995	0.152	0.205	0.290	0.234	0.109	0.222	0.208	0.292	0.200	0.116	0.176	0.092	0.320	0.254	0.099	0.339
1996	0.206	0.304	0.243	0.168	0.275	0.394	0.363	0.400	0.294	0.287	0.202	0.322	0.272	0.390	0.236	0.457

Table 6
Relationship between REIT systematic risk (b) and REIT status.
(t-statistics in parentheses.)

	BETA					
	SASM					
	Old REIT			New REIT		
	MEAN	STD	N	MEAN	STD	N
YEAR						
90	0.5863	0.5224	29	0.6683	0.2726	7
91	0.6400	0.5031	29	0.7703	0.2219	7
92	0.5366	0.5322	30	0.6587	0.4459	10
93	0.9446	1.3663	31	0.7024	0.9798	14
94	0.5799	0.6531	28	0.7307	0.5814	19
95	0.3143	1.0731	30	0.3706	0.4615	54
96	0.0637	0.4342	27	0.0691	0.4039	89

Regression Results

Variable	Coefficient	t-statistic
Intercept	-0.202	-0.4
Log of Market Cap	-0.034	-0.8
Asset Growth (%)	-0.001	-0.9
FFO Growth (%)	0.002*	1.7
Implied Cap Rate (%)	0.043*	1.9
Payout / FFO (%)	0.003*	1.7
Total Debt / Total Capitalization	-0.002	-0.8
Short-term Debt / Long-term Debt	0.677	1.6
SASM	0.151	1.6
Diversified	0.338	1.0
Health Care	0.181	0.5
Industrial	-0.161	-0.5
Office	0.331	0.9
Residential	0.174	0.5
Retail	0.208	0.6
Self-Storage	0.194	0.5
D91	0.053	0.2
D92	-0.064	-0.3
D93	-0.131	-0.7
D94	0.232	1.3
D95	-0.137	-0.8
D96	-0.430**	-2.4
R^2	.25	
F-Stat	3.84	

Table 7
Relationship between REIT WACC, ROC, EVA® Spread and REIT status.
(t-statistics in parentheses.)

Parameter	WACC		ROC		Spread	
	Coef.	t-stat.	Coef.	t-stat.	Coef.	t-stat.
Intercept	0.23965***	7.5	0.11025***	2.5	-0.05433	-1.0
Log of Market Cap	-0.00233	-1.3	-0.00053	-0.2	0.00325	1.0
Asset Growth (%)	-0.00011***	-2.5	-0.00008	-1.3	0.00004	0.5
FFO Growth (%)	0.00012**	2.1	0.00015*	1.8	-0.00003	-0.3
Implied Cap Rate (%)	0.00147	1.4	-0.00214	-1.4	-0.00318*	-1.7
Payout / FFO (%)	-0.00002	-0.3	-0.00001	-0.2	-0.00001	-0.1
Total Debt / Total Capitalization	-0.00028**	-2.4	-0.00056***	-3.4	-0.00016	-0.8
Short-term Debt / Long-term Debt	0.02825	1.4	-0.04505*	-1.7	-0.07511**	-2.2
SASM	0.00346	0.8	0.00000	0.0	-0.00076	-0.1
Diversified	-0.02326	-1.3	0.02855	1.1	0.05127	1.6
Health Care	-0.02553	-1.4	0.02703	1.1	0.05253*	1.7
Industrial	-0.02662	-1.4	0.00064	0.0	0.02962	0.9
Office	-0.01449	-0.8	-0.01968	-0.8	-0.00895	-0.3
Residential	-0.03111*	-1.8	-0.00351	-0.1	0.02959	1.0
Retail	-0.02303	-1.3	0.00584	0.2	0.02815	0.9
Self-Storage	-0.02534	-1.3	-0.01174	-0.4	0.01026	0.3
10yr Treasury	-1.30326***	-5.4	0.15610	0.5	0.14596	0.4
Time	-0.00630***	-5.3	-0.00095	-0.6	0.00267	1.3
R^2	.30		.31		.25	
F-stat.	5.4***		5.7***		4.3***	

Appendix: Old and New REITs

Table 1: Old REITs – not self-advised/self-managed

	REIT Name	Ticker	Cusip	IPO Date
1	Alexander's, Inc.	ALX	014752109	Oct-86
2	American General Hospitality Inc.	AGT	025930108	Jul-96
3	American Health Properties, Inc.	AHE	026494104	Feb-87
4	American Real Estate Investment Corporation	REA	029166105	Nov-93
5	Boykin Lodging Company	BOY	103430104	Oct-96
6	EQK Realty Investors I	EKR	268820107	Mar-85
7	EastGroup Properties, Inc.	EGP	277270104	Dec-71
8	Equity Inns, Inc.	ENN	294703103	Feb-94
9	Franklin Select Realty Trust	FSN	354638108	Mar-89
10	HMG/Courtland Properties, Inc.	HMG	404232100	Sep-72
11	Health & Retirement Properties Trust	HRP	422169102	Dec-86
12	Hospitality Properties Trust	HPT	44106M102	Aug-95
13	Host Funding, Inc.	HFD	441072105	Apr-96
14	Income Opportunity Realty Investors, Inc.	IOT	452926108	Oct-86
15	Innkeepers USA Trust	KPA	4576J0104	Sep-94
16	Irvine Apartment Communities, Inc.	IAC	463606103	Dec-93
17	MGI Properties	MGI	552885105	Mar-72
18	Meridian Point Realty Trust VIII Co.	MPH	589954106	Oct-88
19	Public Storage Properties XI, Inc.	PSM	744609108	Mar-91
20	Public Storage Properties XX, Inc.	PSZ	744620105	Sep-91
21	RFS Hotel Investors, Inc.	RFS	74955J108	Aug-93
22	Realty ReFund Trust	RRF	756125100	Jul-72
23	Sizeler Property Investors, Inc.	SIZ	830137105	Feb-87
24	Sunstone Hotel Investors, Inc.	SSI	867933103	Aug-95
25	Transcontinental Realty Investors, Inc.	TCI	893617209	Feb-85
26	USP Real Estate Investment Trust	USPTS	903370104	Aug-88
27	Universal Health Realty Income Trust	UHT	91359E109	Jan-87
28	Value Property Trust	VLP	919904102	May-71
29	Washington Real Estate Investment Trust	WRE	939653101	Jun-61

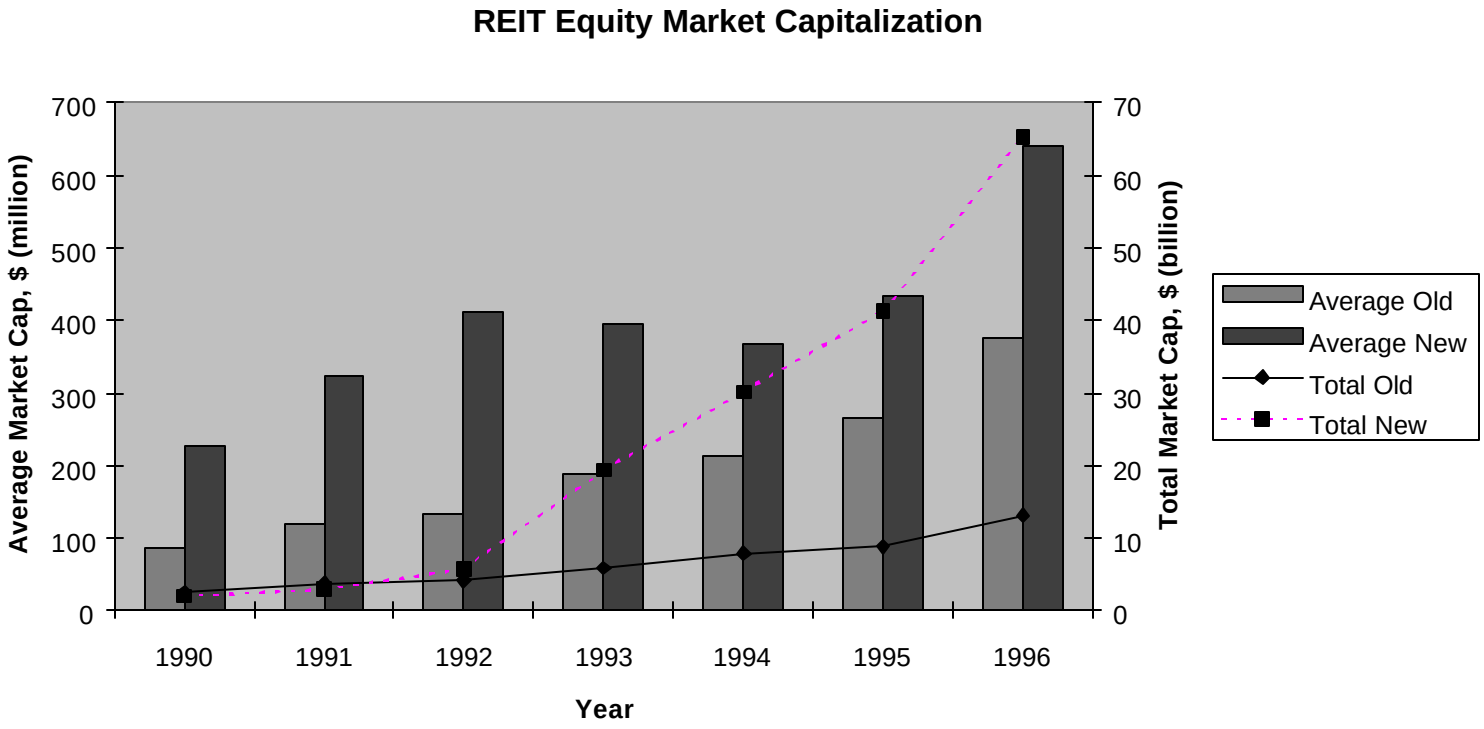
Table 2: New REITs – self-advised/self-managed

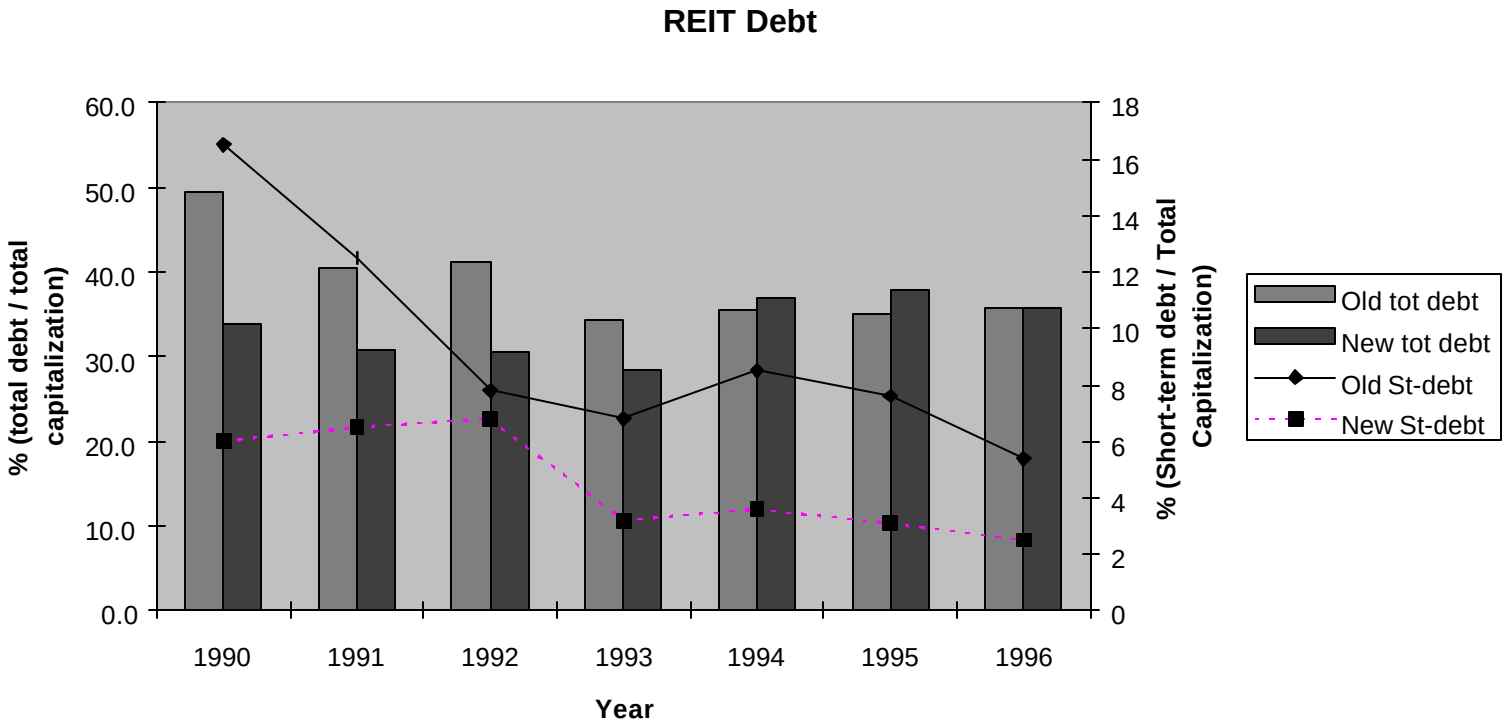
	REIT Name	Ticker	Cusip	IPO Date	SASM Date
30	ASR Investments Corporation	ASR	001932201	Aug-87	Nov-96
31	Agree Realty Corporation	ADC	008492100	Apr-94	Apr-94
32	Alexander Haagen Properties, Inc.	ACH	40443E104	Dec-93	Dec-93
33	Ambassador Apartments, Inc.	AAH	02316A102	Aug-94	Aug-94
34	Amli Residential Properties Trust	AML	001735109	Feb-94	Feb-94
35	Apartment Investment and Management Company	AIV	03748R101	Jul-94	Jul-94
36	Arden Realty Inc.	ARI	039793104	Oct-96	Oct-96
37	Associated Estates Realty Corporation	AEC	045604105	Nov-93	Nov-93
38	Avalon Properties, Inc.	AVN	053469102	Nov-93	Nov-93
39	BRE Properties, Inc.	BRE	05564E109	Jul-70	Oct-95
40	Bay Apartment Communities, Inc.	BYA	072012107	Mar-94	Mar-94
41	Bedford Property Investors, Inc.	BED	076446301	Jan-85	Jul-92
42	Berkshire Realty Company, Inc.	BRI	084710102	Jun-91	Feb-97
43	Boddie-Noell Properties, Inc.	BNP	096903109	May-87	Oct-94
44	Burnham Pacific Properties, Inc.	BPP	12232C108	Mar-87	Dec-95
45	CBL & Associates Properties, Inc.	CBL	124830100	Oct-93	Oct-93
46	Camden Property Trust	CPT	133131102	Jul-93	Jul-93
47	Capstone Capital Corporation	CCT	14066R102	Jun-94	Jun-94
48	CenterPoint Properties Trust	CNT	151895109	Dec-93	Dec-93
49	Charles E. Smith Residential Realty, Inc.	SRW	832197107	Jun-94	Jun-94
50	Chelsea GCA Realty, Inc.	CCG	163262108	Oct-93	Oct-93
51	Colonial Properties Trust	CLP	195872106	Sep-93	Sep-93
52	Commercial Net Lease Realty, Inc.	NNN	202218103	Oct-84	May-97
53	Cousins Properties Incorporated	CUZ	222795106	Jan-97	Apr-87
54	Crescent Real Estate Equities Company	CEI	225756105	Apr-94	Apr-94
55	Crown American Realty Trust	CWN	228186102	Aug-93	Aug-93
56	Developers Diversified Realty Corporation	DDR	251591103	Feb-93	Feb-93
57	Duke Realty Investments, Inc.	DRE	264411505	Jan-86	Oct-93
58	Equity Residential Properties Trust	EQR	29476L107	Aug-93	Aug-93
59	Essex Property Trust, Inc.	ESS	297178105	Jun-94	Jun-94
60	Evans Withycombe Residential, Inc.	EWR	299212100	Aug-94	Aug-94
61	Excel Realty Trust, Inc.	XEL	30067R107	Aug-93	Aug-93
62	FAC Realty Trust, Inc.	FAC	301953105	Jun-93	Jun-93
63	Federal Realty Investment Trust	FRT	313747206	Jun-75	Jun-89
64	FelCor Suite Hotels, Inc.	FCH	314305103	Jul-94	Jul-94
65	First Industrial Realty Trust, Inc.	FR	32054K103	Jun-94	Jun-94
66	First Union Real Estate Equity and Mortgage In	FUR	337400105	May-70	Jan-94
67	First Washington Realty Trust, Inc.	FRW	337489504	Jun-94	Jun-94
68	Franchise Finance Corporation of America	FFA	351807102	Jun-94	Jun-94
69	Gables Residential Trust	GBP	362418105	Jan-94	Jan-94
70	General Growth Properties, Inc.	GGP	370021107	Apr-93	Apr-93
71	Glenborough Realty Trust Incorporated	GLB	37803P105	Dec-95	Dec-95
72	Glimcher Realty Trust	GRT	379302102	Jan-94	Jan-94
73	Grove Property Trust	GVE	399613108	Jun-94	Jun-94
74	HRE Properties, Inc.	HRE	404265100	Jul-69	Jan-86
75	Health Care Property Investors, Inc.	HCP	421915109	May-85	May-88

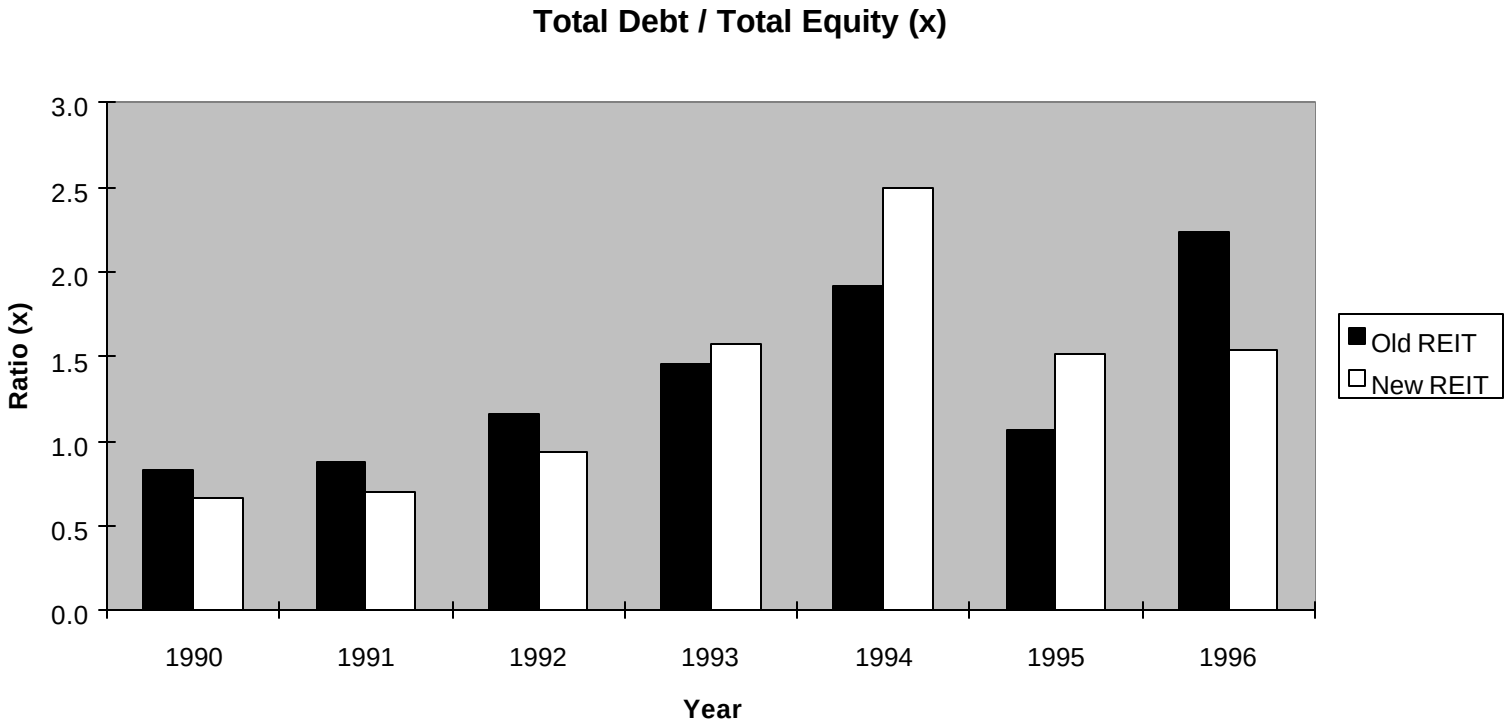
76	Healthcare Realty Trust, Inc.	HR	421946104	Jun-93	Jun-93
77	Highwoods Properties, Inc.	HIW	431284108	Jun-94	Jun-94
78	Home Properties of New York, Inc.	HME	437306103	Jul-94	Jul-94
79	Horizon Group, Inc.	HGI	44041X106	Nov-93	Nov-93
80	IRT Property Company	IRT	450058102	Apr-71	Jan-90
81	JDN Realty Corporation	JDN	465917102	Mar-94	Mar-94
82	JP Realty, Inc.	JPR	46624A106	Jan-94	Jan-94
83	Kilroy Realty Corporation	KRC	49427F108	Jan-97	Jan-97
84	Koger Equity, Inc.	KE	500228101	Aug-88	Dec-93
85	Kranzco Realty Trust	KRT	50076E107	Nov-92	Nov-92
86	Lexington Corporate Properties Trust	LXP	529039109	Oct-93	Aug-95
87	Liberty Property Trust	LRY	531172104	Jun-94	Jun-94
88	Macerich Company	MAC	554382101	Mar-94	Mar-94
89	Malan Realty Investors, Inc.	MAL	561063108	Jun-94	Jun-94
90	Manufactured Home Communities, Inc.	MHC	564682102	Mar-93	Mar-93
91	Mark Centers Trust	MCT	570382101	Jun-93	Jun-93
92	Meridian Industrial Trust, Inc.	MDN	589643105	Feb-96	5-Jun
93	Merry Land & Investment Company, Inc.	MRY	590438107	Apr-92	Apr-92
94	Mid-America Apartment Communities, Inc.	MAA	59522J103	Jan-94	Jan-94
95	Mid-America Realty Investments, Inc.	MDI	59522K100	Dec-86	Dec-86
96	Mid-Atlantic Realty Trust	MRR	595232109	Sep-93	Sep-93
97	Mills Corporation	MLS	601148109	Apr-94	Apr-94
98	National Golf Properties, Inc.	TEE	63623G109	Aug-93	Aug-93
99	Nationwide Health Properties, Inc.	NHP	638620104	Dec-85	Jun-88
100	New Plan Realty Trust	NPR	648059103	Jul-62	Aug-88
101	Oasis Residential, Inc.	OAS	674216106	Oct-93	Oct-93
102	One Liberty Properties, Inc.	OLP	682406103	Dec-82	Jan-95
103	Pacific Gulf Properties, Inc.	PAG	694396102	Feb-94	Feb-94
104	Parkway Properties, Inc.	PKY	70159Q104	Aug-96	Aug-96
105	Patriot American Hospitality, Inc.	PAH	703353102	Sep-95	Sep-95
106	Pennsylvania Real Estate Investment Trust	PEI	709102107	Jun-70	Sep-97
107	Post Properties, Inc.	PPS	737464107	Jul-93	Jul-93
108	Prentiss Properties Trust Inc.	PP	740706106	Oct-96	Oct-96
109	Price REIT, Inc.	RET	74147T105	Dec-91	Dec-91
110	Public Storage, Inc.	PSA	74460D109	Jul-80	Nov-95
111	Ramco-Gershenson Properties Trust	RPT	751452103	Dec-88	May-96
112	Realty Income Corporation	O	756109104	Oct-94	Aug-95
113	Reckson Associates Realty Corporation	RA	75621K106	May-95	May-95
114	Regency Realty Corporation	REG	758939102	Oct-93	Oct-93
115	Rouse Company	RSE	779273101	Nov-95	Nov-95
116	Saul Centers, Inc.	BFS	804395101	Aug-93	Aug-93
117	Security Capital Atlantic Incorporated	SCA	814137105	Oct-96	Sep-97
118	Security Capital Industrial Trust	SCN	814138103	Mar-94	Sep-97
119	Security Capital Pacific Trust	PTR	814141107	Jun-89	Sep-97
120	Shurgard Storage Centers, Inc.	SHU	82567D104	Mar-94	Mar-95
121	Sovran Self Storage, Inc.	SSS	84610H108	Jun-95	Jun-95
122	Spieker Properties, Inc.	SPK	848497103	Nov-93	Nov-93
123	Starwood Hotels & Resorts Trust	HOT	855905204	May-72	Jan-95
124	Storage Trust Realty	SEA	861909109	Nov-94	Nov-94
125	Storage USA, Inc.	SUS	861907103	Mar-94	Mar-94

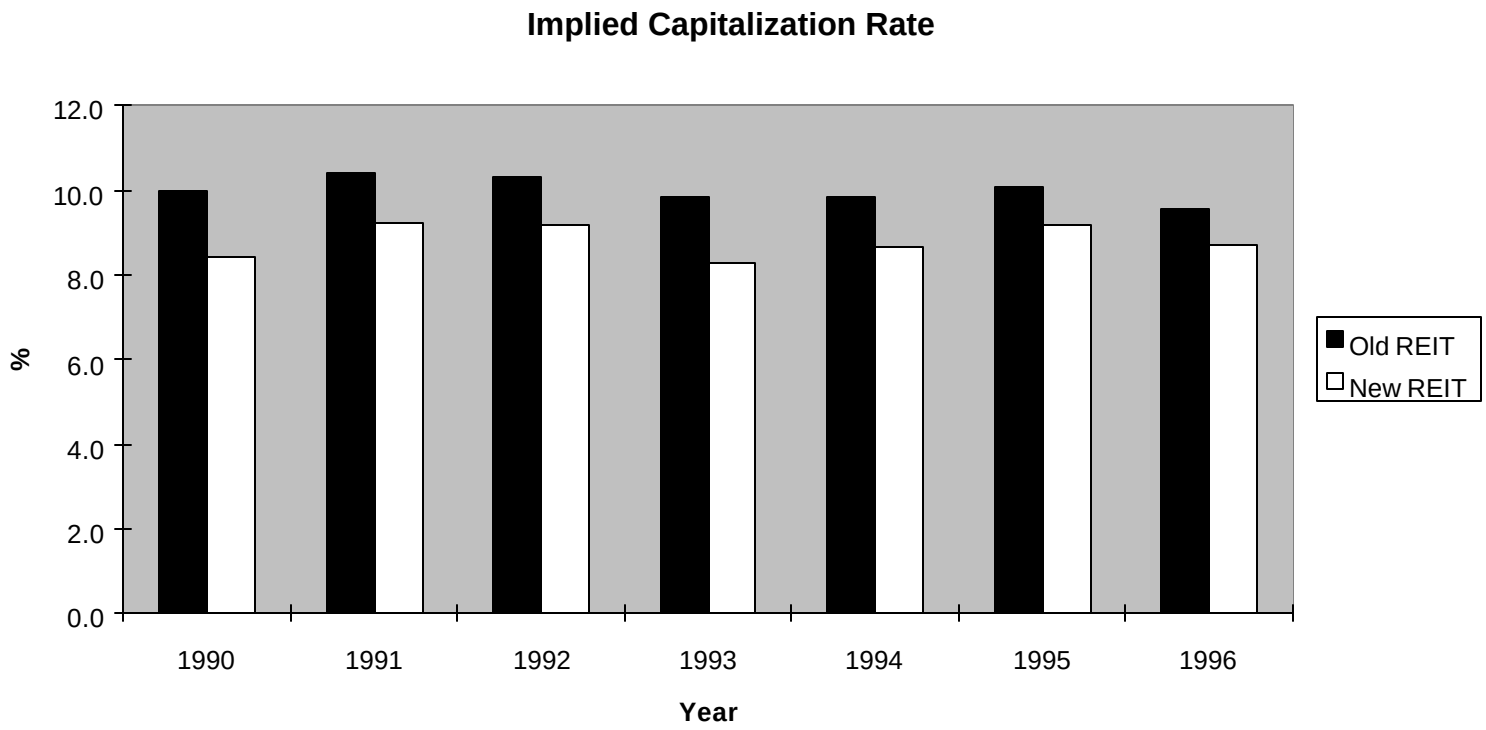
126	Summit Properties, Inc.	SMT	866239106	Feb-94	Feb-94
127	Sun Communities, Inc.	SUI	866674104	Dec-93	Dec-93
128	Tanger Factory Outlet Centers, Inc.	SKT	875465106	May-93	May-93
129	Taubman Centers, Inc.	TCO	876664103	Nov-92	Nov-92
130	Town and Country Trust	TCT	892081100	Aug-93	Aug-93
131	TriNet Corporate Realty Trust, Inc.	TRI	896287109	May-93	May-93
132	United Dominion Realty Trust, Inc.	UDR	910197102	May-90	Dec-89
133	United Mobile Homes, Inc.	UMH	911024107	Dec-92	Dec-92
134	Urban Shopping Centers, Inc.	URB	917060105	Oct-93	Oct-93
135	Vornado Realty Trust	VNO	929042109	May-93	May-93
136	Walden Residential Properties, Inc.	WDN	931210108	Feb-94	Feb-94
137	Weeks Corporation	WKS	94856P102	Aug-94	Aug-94
138	Weingarten Realty Investors	WRI	948741103	Mar-88	Jan-93
139	Western Investment Real Estate Trust	WIR	958468100	Jun-84	May-87

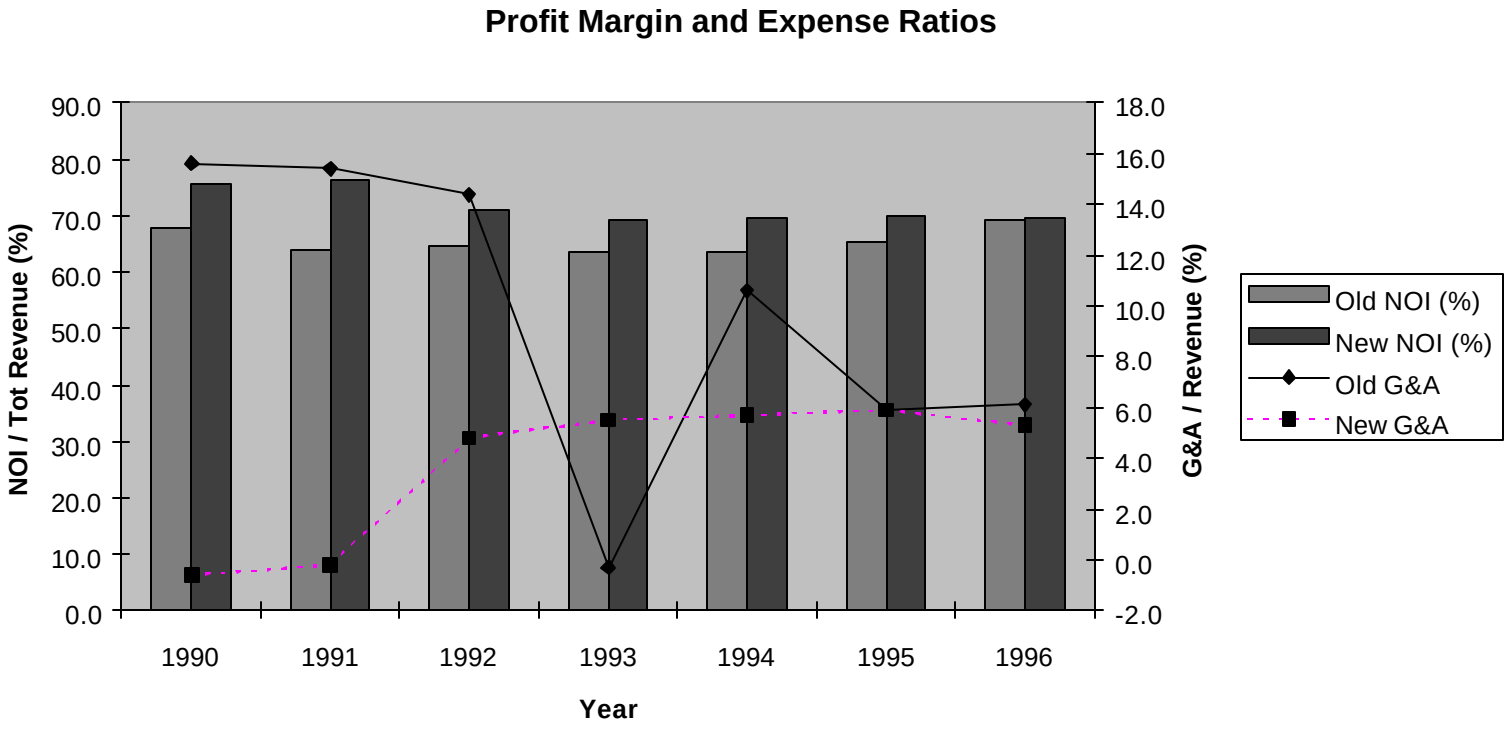
SASM Date is the date the REIT became self-advised/self-managed.

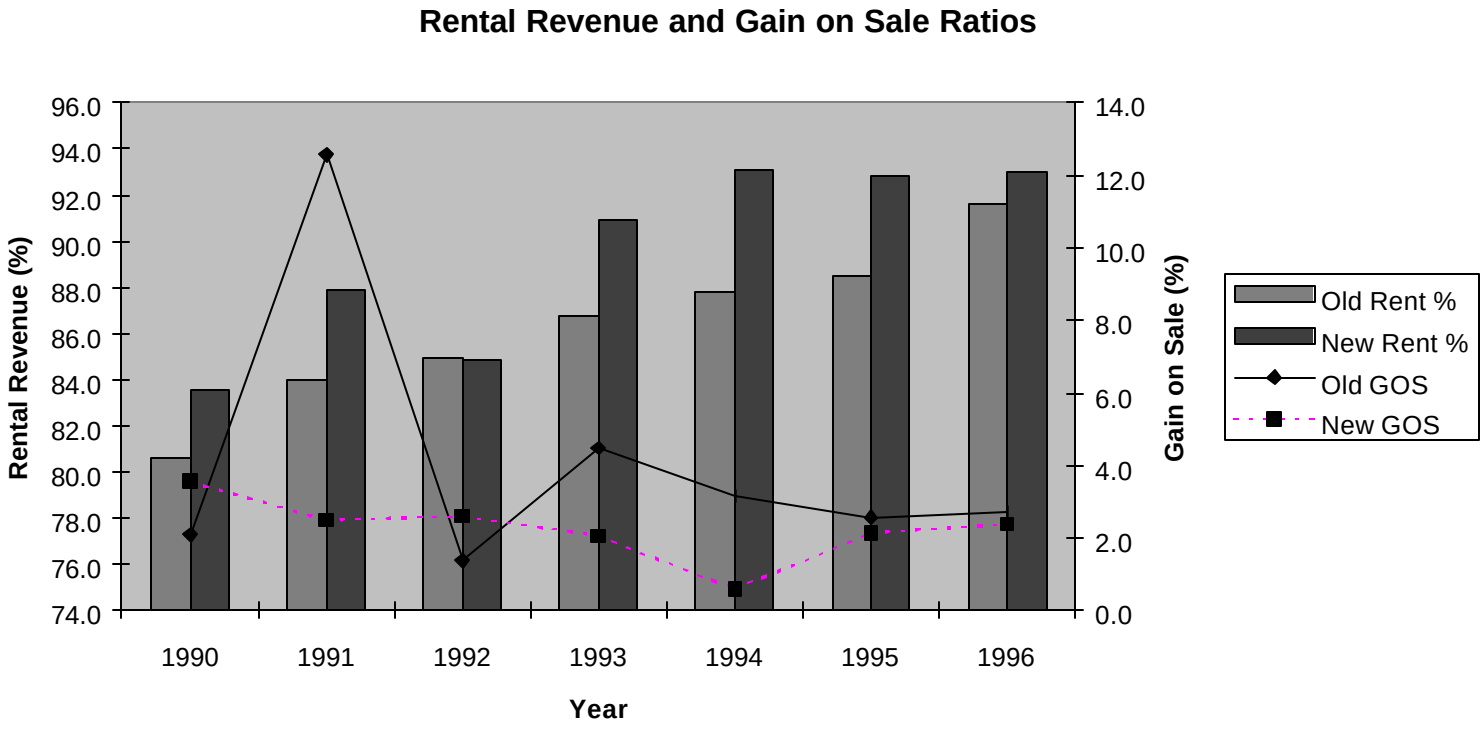

REIT Equity Market Capitalization
Average Market Cap, $ (million)
Total Market Cap, $ (billion)
700
600
500
400
300
200
100
0
70
60
50
40
30
20
10
0
1990
1991
1992
1993
1994
1995
1996
Year
Average Old
Average New
Total Old
Total New

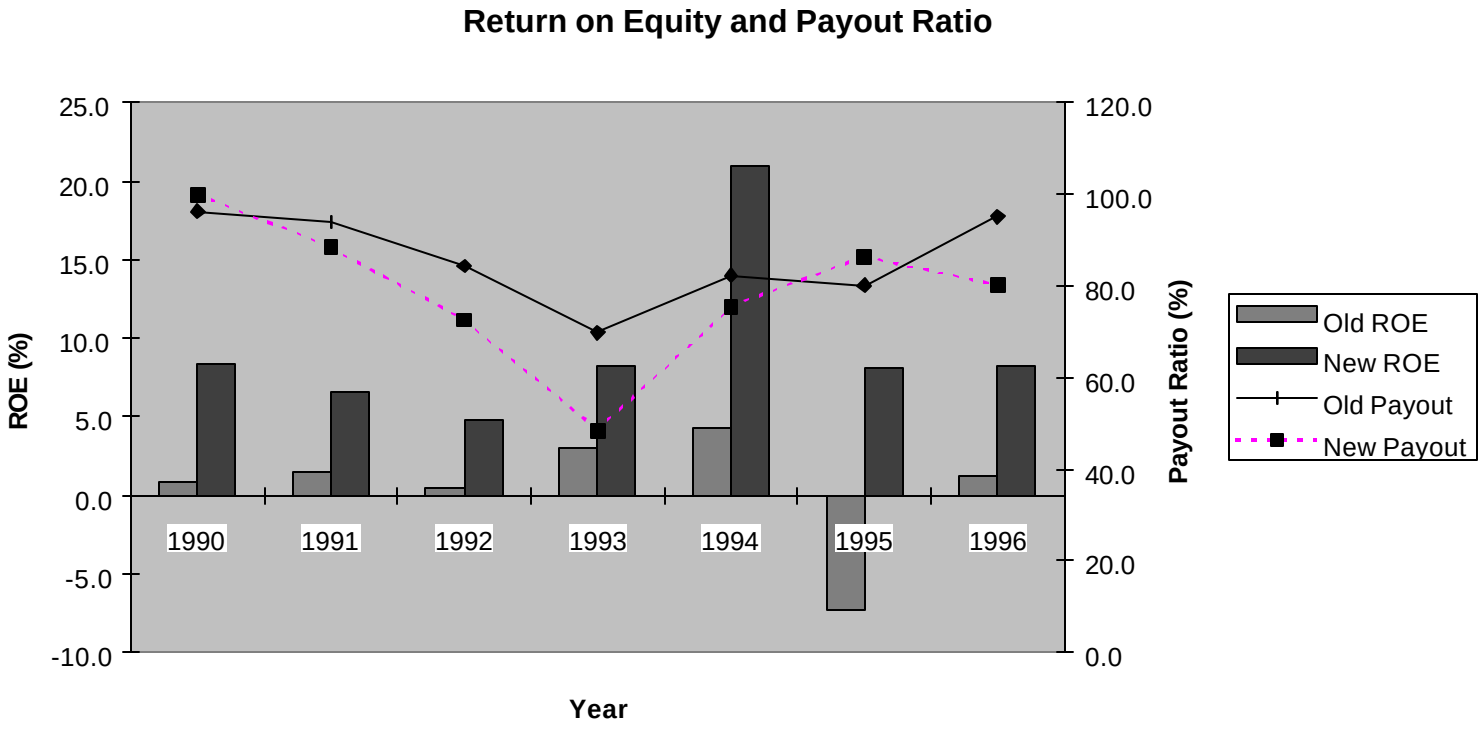

REIT Debt
% (total debt / total capitalization)
60.0
50.0
40.0
30.0
20.0
10.0
0.0
18
16
14
12
10
8
6
4
2
0
% (Short-term debt / Total Capitalization)
1990
1991
1992
1993
1994
1995
1996
Year
Old tot debt
New tot debt
Old St-debt
New St-debt

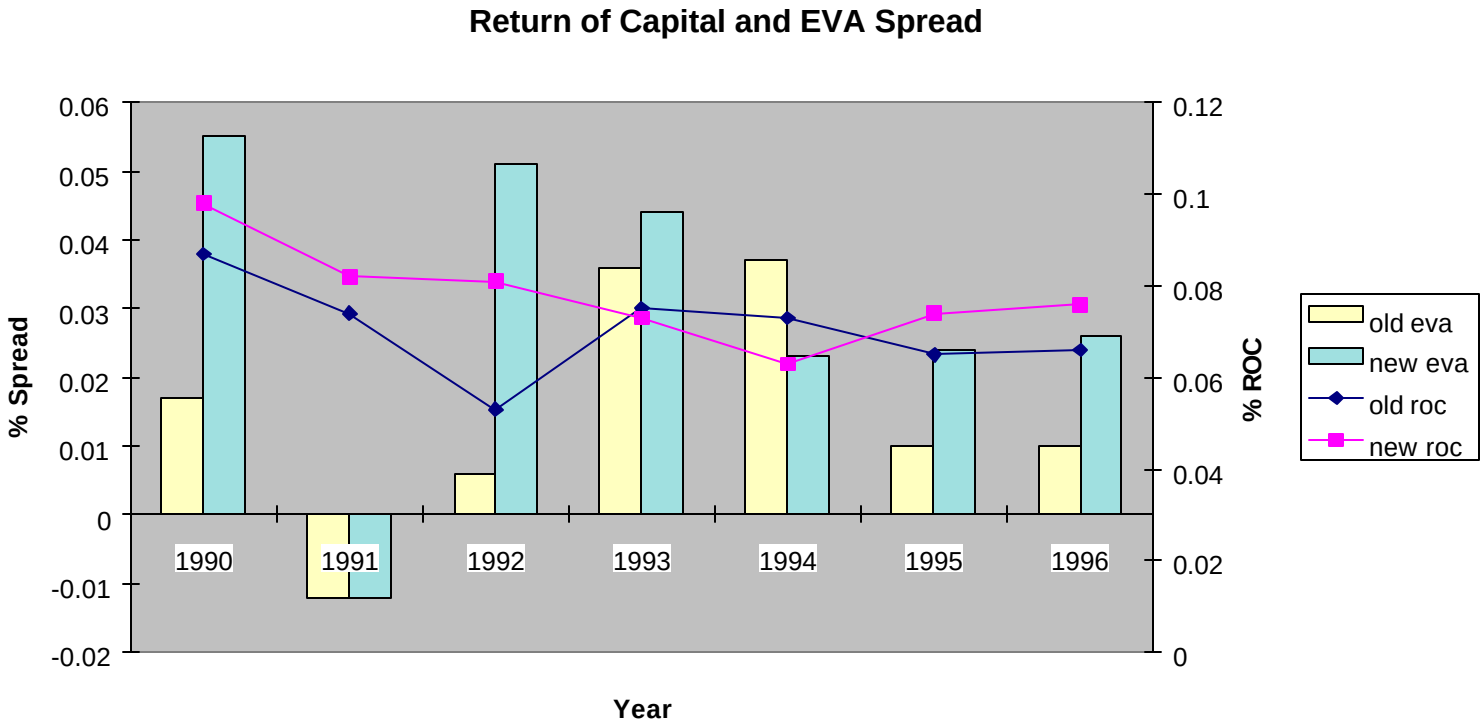

Total Debt / Total Equity (x)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Ratio (x)
1990
1991
1992
1993
1994
1995
1996
Year
Old REIT
New REIT

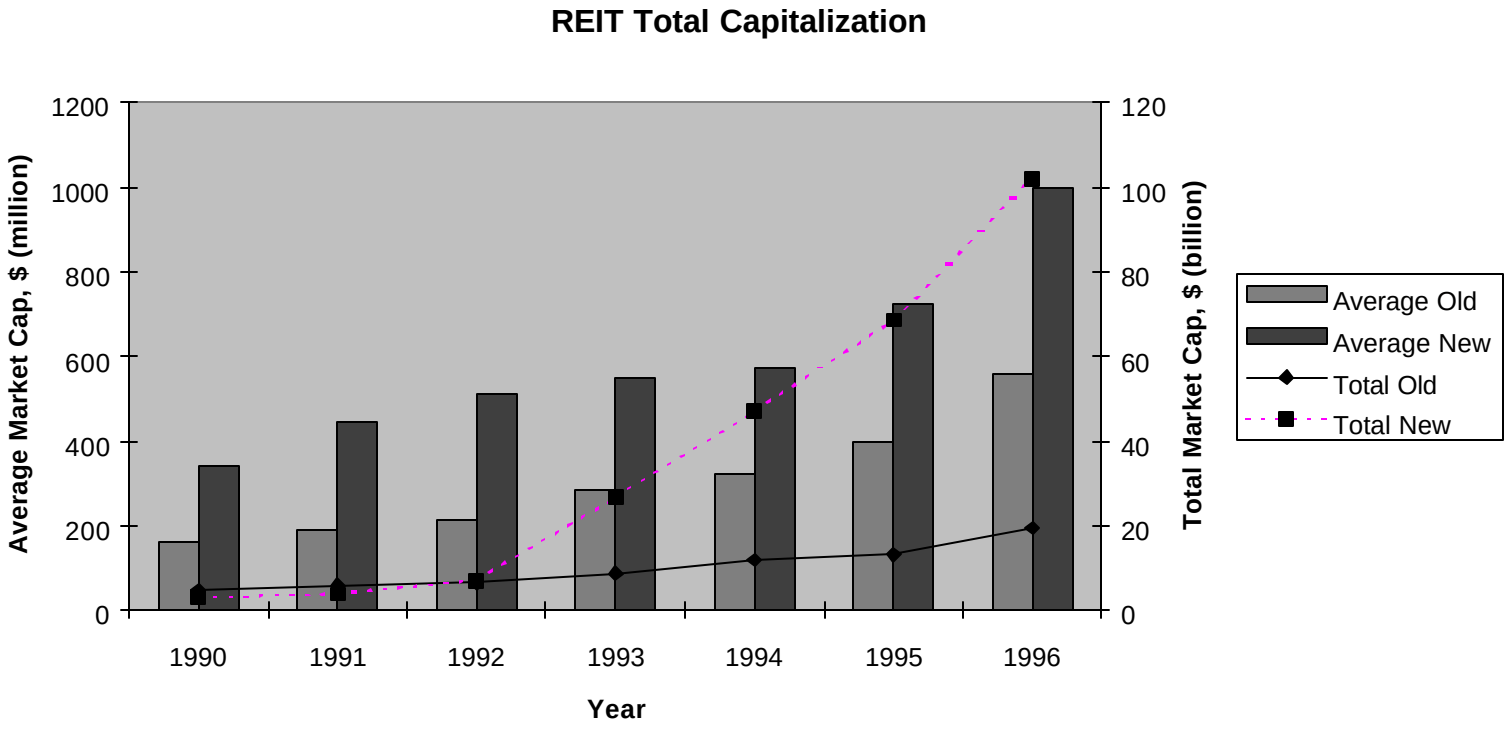

Implied Capitalization Rate
12.0
10.0
8.0
6.0
4.0
2.0
0.0
%
1990
1991
1992
1993
1994
1995
1996
Year
Old REIT
New REIT


Profit Margin and Expense Ratios
NOI / Tot Revenue (%)
G&A / Revenue (%)
Year
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
-2.0
1990
1991
1992
1993
1994
1995
1996
Old NOI (%)
New NOI (%)
Old G&A
New G&A


Rental Revenue and Gain on Sale Ratios
Rental Revenue (%)
96.0
94.0
92.0
90.0
88.0
86.0
84.0
82.0
80.0
78.0
76.0
74.0
Gain on Sale (%)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1990
1991
1992
1993
1994
1995
1996
Year
Old Rent %
New Rent %
Old GOS
New GOS


Return on Equity and Payout Ratio
25.0
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
ROE (%)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Payout Ratio (%)
1990
1991
1992
1993
1994
1995
1996
Year
Old ROE
New ROE
Old Payout
New Payout


Return of Capital and EVA Spread
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
-0.02
% Spread
0.12
0.1
0.08
0.06
0.04
0.02
0
% ROC
1990
1991
1992
1993
1994
1995
1996
Year
old eva
new eva
old roc
new roc


REIT Total Capitalization
Average Market Cap, $ (million)
Total Market Cap, $ (billion)
Year
1200
1000
800
600
400
200
0
120
100
80
60
40
20
0
1990
1991
1992
1993
1994
1995
1996
Average Old
Average New
Total Old
Total New