# SHOULD COMMERCIAL REAL ESTATE BE INCLUDED IN THE S&P 500?

by

**Peter Linneman**

**Working Paper #390**

10/21/01

The S&P 500 Index, representing roughly three-quarters of the value of U.S. publicly traded companies, is the world's most broadly used investment benchmark. This market-weighted index of 500 publicly traded companies, that was originated in 1923, derives its usefulness from its comprehensive industry coverage, which in turn allows it to accurately reflect the return pattern of the U.S. stock market. The importance of the S&P 500 Index as a broad investment performance benchmark is indicated by the widespread use of S&P 500 mutual funds by both institutional and individual investors to passively match "market" performance. Investments made via these passive S&P 500 indexed funds have grown dramatically, rising from less than 1 percent of all equity mutual funds in 1990, to over 10 percent of these funds today.

The popularity of the S&P 500 Index among investors critically depends on the index accurately reflecting the full range of common stock investments. To achieve such representation and diversification, it is particularly important that major industry sectors with period-to-period returns that are relatively uncorrelated or have a low "beta" with other broad industry groups are included in the Index. The S&P 500 Index is composed of 103 industry groups representing 11 sectors. Each industry group is constructed in rough proportion to the investable universe of common stocks. In order to be added to the S&P 500 a company must be a viable enterprise which is representative of its industry group. Not surprisingly, a company's market capitalization and trading activity are key determinants of eligibility for inclusion in the Index.

A glaring omission from the S&P 500 today is commercial real estate. No publicly traded commercial real estate companies are included, even though they represent approximately one percent – the typical size of an S&P industry group – of the value of all publicly traded U.S. companies. Today twelve publicly traded real estate companies have equity market capitalizations in excess of $3 billion, with two in excess of $5 billion. The largest, Equity Office Properties has an equity market capitalization in excess of $12 billion, which would place it among the 200 largest S&P 500 stocks.

Table 1: Largest Public Real Estate Companies

| | Equity Value ($ Billions) | Enterprise Value ($ Billions) | Beta | IPO Date | Sector |
|---|---|---|---|---|---|
| Equity Office | 15.4 | 28.1 | 0.32 | 1997 | Office |
| Equity Residential | 8.3 | 15.4 | 0.17 | 1993 | Apartments |
| Simon Properties | 6.8 | 18.8 | 0.02 | 1993 | Malls |
| Archstone Communities | 5.0 | 9.2 | 0.13 | 1972 | Apartments |
| ProLogis | 4.5 | 8.2 | 0.41 | 1994 | Warehouse |
| AIMCO | 4.0 | 10.3 | 0.20 | 1994 | Apartments |
| First Industrial | 3.9 | 6.8 | 0.28 | 1994 | Warehouse |
| Vornado Realty | 3.8 | 10.2 | 0.15 | 1972 | Mixed |
| Public Storage | 3.8 | 6.0 | 0.15 | 1980 | Storage |
| Host Marriott | 3.6 | 9.7 | 0.36 | 1953 | Hotels |
| Duke Realty | 3.6 | 6.7 | 0.37 | 1986 | Office |

Table 1 reveals that publicly traded real estate companies include leaders from every sector of the commercial real estate industry. They have established records of positive earnings and earnings growth, and are actively traded on the New York Stock Exchange. The shares of the largest publicly traded commercial real estate companies are broadly owned by both institutions and individuals, with roughly 70 percent owned by institutional investors. The liquidity of shares of the largest publicly traded real estate companies is comparable to S&P 500 companies in terms of both share turnover ratios and bid-ask spreads. Publicly traded commercial real estate companies employ more than 90,000 people, and own and operate roughly 25,000 properties throughout the U.S., representing roughly 15 percent of the value of U.S. investment real estate. These companies operate at leverage levels commensurate with industrial and consumer cyclical companies. Fifty publicly traded commercial real estate companies possess S&P investment grade debt ratings.

An important dimension of publicly traded real estate companies for investors is their relatively low betas. As shown in Table 1, the betas for the largest public real estate companies are 0.41 or less. Further, as seen in Figure 1, the beta for publicly traded commercial real estate companies has been drifting downward over the last decade. The low betas of commercial real estate companies reflect the fact that the long term leases for offices, warehouses, and retail properties mean that the demand for real estate – hence its profitability – lags changes in the profitability of its tenants. For the apartment sector, the low beta reflects that U.S. population growth occurs even when the economy and corporate profitability decline. The relatively low betas of commercial real estate companies serve to reduce the volatility of common stock returns.

The absence of commercial real estate companies in the S&P 500 is curious, as several homebuilders with smaller market capitalization levels are included in the Index. Further, commercial real estate companies have been included in the S&P 500 in the past. From 1965 through the late 1970s, several commercial real estate companies were included in the Index, even though publicly traded real estate operators were a much less important part of both the real estate industry and total U.S. stock market capitalization. In addition, many real estate intensive companies are included in the S&P, including retailers, life insurance companies, hotel operators, and grocers. Many firms in these sectors own and operate properties which are comparable to those of large publicly traded commercial real estate companies.

## WHY NONE TODAY?

Why has the S&P 500 not included commercial real estate companies since the late 1970s? To answer this question it is necessary to understand the history of the commercial real estate industry over the past 25 years. The two commercial real estate firms that were once included in the S&P 500, Tishman Realty and Uris Buildings, both ceased to exist as public companies in the mid-1970s. In 1977, both Tishman and Uris were liquidated and their properties purchased by private owners. As these two firms disappeared from the public arena, no sizable commercial real estate firms remained as major investment opportunities for stock market investors.

As excess bank lending and tax driven equity syndications flooded the real estate markets with cheap money in the 1980s, leading commercial real estate operators found it unnecessary to access public equity markets in order to grow. As seen in Figure 2, the early 1980s saw an explosion of debt flows to real estate. In the 1980s loans to real estate owners in excess of 100 percent of costs were common. This meant that the owner made money on day one via withdrawing the excess loan proceeds, and retained all of the upside capital appreciation risk, while the lender assumed all downside risks. If the owner needed a small slice of equity, tax losses were sold to individual investors in a manner that generally did not dilute the owner's economic interest. As a result, no major owners of commercial real estate chose to be publicly traded firms. Simply stated, major owners refused to submit to the rigors of public equity markets, as they could get all of the money they needed on a non-recourse basis.

In this bizarre financing environment the major owners of commercial real estate completely withdrew from the public equity markets. By the end of 1990, the market cap of the largest publicly traded commercial real estate operator was a mere $700 million, and only about $5 billion of the U.S.'s roughly $1.8 trillion of investable commercial real estate was owned by publicly traded companies.

When the real estate finance markets awoke from their madness in 1990, the world of commercial real estate changed forever. Real estate companies could no longer access either excessive leverage or tax driven equity investors. As seen in Figure 3, debt fell by roughly $100 billion between 1989 and 1993, as commercial real estate owners were forced to play by the same financing rules that had long applied to other industrial and consumer cyclical companies. In the new world order they needed equity, and lots of it. The integration of commercial real estate finance into the mainstream of global financial markets generated an inevitable result. Due to the extreme capital intensity of owning and operating commercial real estate, and the need for 20-50 percent in equity, most of the leading commercial real estate companies had no choice but to turn to public equity markets to fund their equity requirements. As shown in Figure 4, between 1992 and 1997 the equity market capitalization of publicly traded commercial real estate companies exploded from $11 billion to nearly $130 billion, as one after another of the leading real estate companies went public, used the funds to pay down debt, and then absorbed the properties of owners pressured by excess leverage. It is important to realize that this explosion in market capitalization was not the result of "bubble pricing", but rather a massive switch from highly leveraged private ownership to rationally leveraged public ownership of properties.

The leading publicly traded commercial real estate companies have generated annual earnings growth in excess of ten percent over the past 7 years. The combination of internal growth and consolidation has created many large regional and national property companies. There are 17 companies with market capitalizations in excess of $2 billion, and the total equity market capitalization is nearly $150 billion. Figure 5 shows the distribution of S&P 500 companies by equity market cap. The chart also notes where leading property companies would fall in this distribution, clearly indicating that many of these companies are among the largest U.S. companies.

Like other publicly traded companies, the returns for commercial real estate companies are determined by a combination of market supply/demand conditions and capital market risk pricing. Since 1992, publicly traded real estate companies have outperformed the S&P 500 in 5 years and underperformeding it in 4 years. Liquidity increased as these companies grew much larger, and achieved both buy and sell side analyst followings. Figure 5 indicates that the trading volumes of the largest publicly traded commercial real estate companies are typical for S&P 500 companies.

## BUT AREN'T THEY REITS?

Some argue that publicly traded commercial real estate companies do not belong in the S&P 500 because most--though not all--operate as Real Estate Investment Trusts (REITs). However, most REITs are chartered and operate as corporations, just like other publicly traded companies. REITs possess the same basic governance structures, management structures, executive compensation plans, and independent boards as all other publicly traded companies. Their common shares trade exactly the same as the shares of any S&P 500 corporation, and bestow the same ownership rights.

The main distinction between a REIT and any other corporation is that in return for corporate tax efficiency, the REIT is required by law to pay a higher dividend rate than generally paid by other corporations with similar earnings and capital needs. But as seen in Figure 7, substantial differences in dividend policies have always existed across S&P 500 companies, and are readily reflected in stock prices. In this regard, REITs are no different than other stocks in the S&P 500 Index.

Some argue that REITs are different than other corporations because of the operating restrictions imposed upon them by the Internal Revenue Service (IRS). But all companies are subject to numerous government regulations that affect their operations. For example, the operating restrictions placed on banks by the Comptroller of the Currency and Federal Reserve are far more restrictive than those imposed on REITs by the IRS. The same is true of government imposed operating restrictions placed upon airlines, utilities, insurance companies, and pharmaceutical companies, all of which are major parts of the S&P 500. In fact, changes in these governmentally imposed operating restrictions are key determinants of the performance of the stock prices of companies over time. So too, for REITs.

An annoying minor difference for investors between REITs and other corporations is that REITs have created their own unaudited supplemental performance metric, known as Funds From Operations (FFO), rather than solely using the standard performance metrics of earnings and cash flow. FFO is a non-audited number, basically defined as earnings plus depreciation plus amortization. It is an attempt to measure net cash flow by adding back depreciation. However, since FFO fails to deduct for recurring capital expenditures, and changes in working capital needs it systematically overstates cash flow. In addition, each company defines it slightly differently, making comparisons across companies sometimes difficult. The commercial real estate industry would be well served by abandoning FFO and using the same performance measures as other companies. Financial analysts have long wrestled with ways to transform reported earnings to recurring cash flows for every other industry, and they can do so for commercial real estate.

In short, there is no substantive distinction between REITs and “normal” corporations in terms of their being a part of the U.S. investment landscape. In fact, one of the largest hotel companies in the S&P 500, Starwood Hospitality, is a corporation whose main asset is a wholly owned REIT.

## NOW IS THE TIME

From the late 1970s through 1992 there was no valid reason to include publicly traded real estate companies in the S&P 500, as they were an insignificant portion of the publicly traded investment menu. Only in the last few years have publicly traded real estate companies grown to the size of S&P 500 companies. S&P has been waiting for the newly public commercial real estate companies of the mid-1990s to prove that they are more than a passing fad, and to become established as a significant part of the U.S. common stock investment landscape. However, after nine years, it is time to act. The re-inclusion of commercial real estate companies in the S&P 500 Index will mark a coming of age for these investments. In the first instance, the stocks selected for inclusion can expect to benefit from the roughly 15 percent S&P “pop” in their share prices. More importantly, active investment managers who are measured against the S&P 500 Index will actively trade (both long and short) non-included commercial real estate companies in an attempt to achieve superior performance. This is because most active managers utilize strategies that focus on excluded stocks in each S&P 500 Index industry category when attempting to outperform the Index, rather than running the risk of investing in excluded sectors. As a result, increased liquidity and research resources will be focused on all commercial real estate stocks once commercial real estate companies are added to the S&P 500.

The time has come for S&P to create a new commercial real estate industry group, composed of 4-6 commercial real estate companies, as part of the S&P 500. Failure to do so needlessly causes the S&P 500 Index to misrepresent the true pattern of common stock returns, particularly in view of the relatively low beta of these companies, thus depriving the many investors who use this important benchmark the benefits of commercial real estate investment.

[Author bio: **Peter Linneman** is the Albert Sussman Professor of Real Estate, Finance and Public Policy at the University of Pennsylvania, and is also the Principal of Linneman Associates, a financial and real estate strategic advisory firm.]