RECENT VOLATILITY in the stock market highlights the need for investors to reexamine the potential benefits of portfolio diversification. Real estate investment trusts (REITs) have the potential to provide competitive expected returns even in a recessionary environment and display low correlation relative to domestic, international, and technology stock and bond markets. As a result, investors who include REITs in a mixed-asset portfolio may substantially improve their portfolio’s

KENNETH T. ROSEN
risk-return profile.

**THE MODERN REIT ERA**

The modern REIT era began in November 1992 with the IPO of Taubman Realty. The subsequent REIT offering boom from 1993 to 1998 dramatically increased the size of the REIT market. During that period, REIT companies raised nearly $100 billion of new equity. Although REITs were created by Congress in 1960, the new REITs that came public during the mid-1990s were fundamentally different from their predecessors. In general, the new REITs hold higher-quality institutional real estate in their portfolios; are fully-integrated real estate operating companies run by management teams that have several decades of experience developing, acquiring, and managing real estate; and are generally larger companies, with an average market capitalization level near $1 billion. Two significant governance characteristics distinguish these modern REITs from real estate investments of the late 1980s: the internalization of management and the high level of insider ownership.

As of mid-year 2002, the REIT market had grown to 152 companies with a total equity capitalization of $170 billion. Including leverage and the value of operating partnership units (non-trading shares taken by the founders when the REIT was formed), REITs control more than $350 billion of real estate as of June 2002. In at least three sectors—office, apartments, and regional malls—REITs are leading players, having achieved significant market share in major metropolitan areas.

Although a comparatively small amount of equity has been issued since 1998, merger and acquisition activity has risen, such that average company size has continued to increase. In fact, the average market capitalization of REITs grew nearly tenfold over the decade, from $95.7 million in 1990 to $974.1 million at the end of 2001. This underscores the fundamental shift of the REIT market away from its small company roots and toward its current role as a valuable source for information and price discovery and a gauge of investor sentiment in national and local real estate markets.

**STOCKS, BONDS, OR REAL ESTATE?**

The standard measures used to examine the investment characteristics of an asset class are returns, standard deviation of returns, and cross-correlation of returns. For comparison purposes, we calculate
performance for the following indices: the Wilshire REIT Index; the NCREIF (private real estate) Index; Standard and Poor’s 500 (large-cap equity) Index; the Russell 2000 (small-cap equity) Index; the MSCI EAFE (international equity) Index; the Nasdaq Composite (small-cap/technology equity) Index; a 10-year Treasury Bond; and the Dow Jones Utilities Index.

Relative to broad stock and bond indices, REITs have generated competitive returns during the 1993–2001 period. Since REITs are not just static pools of assets—they are real estate companies—it is not surprising to see REITs behave like other public companies in their attempt to enhance shareholder value through growth in earnings per share. REITs are “real estate … plus.” In addition to a pool of assets designed to deliver real estate return characteristics, REITs have a public company’s incentive to grow earnings from those assets. Thus, the average return for REITs since 1993 exceeds that of private real estate.

The compound annual return for the REIT market over the modern REIT era has been nearly 12 percent. Amazingly, the annualized returns for REITs during this period exceed returns from the S&P 500 Index (11.1 percent), Nasdaq (8.7 percent), the Dow Jones Utilities Index (7.3 percent), private real estate (9.4 percent), international stocks (4.5 percent), bonds (7.5 percent), and small capitalization stocks (9.6 percent). Between 2000 and 2002, during the recent bear market, REITs have outperformed the S&P 500

**Figure I** Recent Performance, REITs vs. Stocks and Bonds

![Graph showing recent performance of Wilshire REIT, S&P 500, Nasdaq, and 10-year Treasury Bond from 2000 to 2002. The graph indicates that REITs have outperformed the S&P 500 and Nasdaq, and matched the performance of the 10-year Treasury Bond.]

*YTD as of June 30, 2002

Sources: Wilshire Associates, Bloomberg
Index, the Nasdaq composite, and the 10-year Treasury Bond dramatically (see Figure 1).

The standard deviation of the Wilshire REIT Index since 1993 (13.8 percent) is lower than that of the S&P 500 Index (16.0 percent), significantly lower than the Russell 2000 Index (19.3 percent), higher than the 10-year Treasury Bond (7.4 percent), and lower than the Dow Jones Utilities Index (16.8 percent).

Therefore, on both the risk and return spectrums, REITs fall somewhere between stocks and bonds. The fact that REITs outperformed the S&P 500 Index during the extended bull market for equities and outperformed bonds during the same period shows that REITs have the potential to deliver competitive absolute returns to complement a variety of portfolio types.

We believe that one of the most compelling aspects of REIT investments is their low correlation relative to other investments. The correlation of the Wilshire REIT Index to major stock indices, including the S&P 500 Index (0.20) and the Nasdaq (0.06), is extremely low. The correlation to bonds (0.10) and international stocks (0.13) is equally low. While still comparatively low, REITs are correlated more highly to the Russell 2000 (0.39) and the Dow Jones Utilities Index (0.40). This general low correlation is in marked contrast to the high correlation of the S&P 500 Index to the Nasdaq, the Russell 2000, and the one international stock index (all in the 0.75 to 0.85 range). Thus, it appears that REITs have the potential to provide diversification in a portfolio of stocks significantly better than international equities, utilities, and bonds.

The information on return, risk, and correlation show REITs have the potential to be a valuable performance enhancement and diversification tool in a mixed asset portfolio. We can construct an efficient investment frontier for a portfolio of stocks, bonds, and REITs using standard deviation and return data to illustrate this point.

RELATIVE AND ABSOLUTE VALUE

REITs have a high current dividend yield of 6.4 percent, and a high cash flow yield of 9.3 percent as of July 31, 2002. This implies a dividend payout ratio of 69 percent, low by historical standards, and providing comfort as to the safety of this important source of income.

This high cash flow yield represents a more than 500-basis-point spread relative to the 10-year Treasury Bond as of August 2002. From 1998 through 2001, this spread increased dramatically, reflecting both the underlying strength
of the real estate markets during that period and the valuation gap created when REITs were overshadowed by competing growth-oriented investments, hurting REIT returns and lowering asset-class correlation.

The price-to-earnings multiple of the S&P 500 Index may be compared to the AFFO (cash flow) multiple of the REIT market over time. While these multiples cannot be compared directly, their relationship over time is helpful in assessing relative valuation. From 1998 to 2000, the average multiple on the S&P 500 Index continued to expand, while the average REIT market multiple contracted. During this time, REIT company earnings grew at a healthy and consistent rate, such that earnings growth had, on average, translated to total return. Only recently has the relationship between these multiples begun to change, as the earnings of the S&P 500 Index companies weaken. Now REITs appear only slightly undervalued to the S&P 500.

Finally, an important metric in judging the value of REITs is the comparison of REIT stock prices to the underlying private market value of the real estate they hold, as measured by net asset value, or NAV. By this metric, REITs are trading at roughly a 5 percent discount to the current private market value of real estate assets they hold as of July 31, 2002.

In summary, on all relative and absolute measurements, REITs appear attractively valued as August 2002. Only in November and December of 1999, right before the 2000 REIT rally, were REITs more attractive.

REIT PERFORMANCE AND SIZE

REITs and real estate are not immune to the negative effects of a sharp economic slowdown or recession. Weak economic conditions lower real estate demand, in turn reducing occupancies and rents. However, as we enter this economic slowdown, in most markets real estate is well positioned relative to previous downturns. Vacancy rates at the close of 2000 were low relative to the recent past and are much lower than the period leading into the last recession. However, in the past 18 months, vacancy rates have risen sharply for office, industrial, and multi-family properties. Nevertheless, cap rates (conceptually, the inverse of a P/E ratio) are high relative to Treasury yields by historical standards, signifying that real estate valuations are conservative, cushioning the impact of weaker fundamentals. As a result of these initial conditions, while real estate will suffer during a recession, we believe earnings erosion should be relatively modest compared to other equities and past real estate cycles, and any impairment to real estate asset val-
ues should be relatively mild.

An ongoing debate among REIT analysts concerns the advantage of size in the REIT industry. The debate, characterized by the phrase “big is better,” has been debated in both industry and academic forums. Some of the potential advantages of size are: capital markets access and cost; operational economies of scale; supply chain economies of scale; human resource advantages of attracting top management; leasing advantages with large national tenants; and brand identity. There are three categories of advantages. The first relates to the ability of large liquid public companies to attract debt and equity at more advantageous costs. Observers believe investors prefer large liquid companies as debt and equity investment vehicles. The second category of potential advantages of size relates to operational economies of scale. Larger REITs may have more bargaining power with suppliers and tenants. Large companies may also have a human resources advantage by offering a wider range of career patterns. Finally, there is a possibility that a larger company might have better success establishing a brand identity and extracting above-market rents from tenants.

There are, however, also potential disadvantages to size, such as: local property management; bureaucracy instead of entrepreneurship; conglomerate rather than geographic specialization; and the impact on growth rates of an essentially medium-to-small-size, project-oriented industry. A large national company will have more difficulty attracting and retaining “local sharpshooters” and top real estate entrepreneurs. A national conglomerate—rather than a regional specialist—

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<th>Forward AFFO Multiple</th>
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<th>Premium/Discount</th>
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<td>0.31</td>
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</table>

Sources: Bloomberg, SNL Securities, company reports, Lend Lease Rosen
may underperform in a “local market”-oriented industry. Finally, it may be more difficult for a large company to continue to grow rapidly through development and acquisition in an industry that is essentially a small-project business.

While the advantages and disadvantages of size can be argued theoretically, the empirical evidence at this point is not conclusive. Table I shows REIT metrics for different-sized office/industrial companies, apartment companies, and retail companies. The office company data show that size confers only some expense advantages. Large office companies have, however, substantially underperformed mid cap and small cap office/industrial REITs in terms of total investment return. The apartment data show a substantial advantage in costs for large companies. On all other metrics there appears to be no obvious advantage to size. However, the data for retail real estate companies do show that the large companies have outperformed on a number of metrics. The large retail companies have outperformed on a total return basis, have much lower expense ratios, and command the largest premium in the public market. To summarize, there is not yet conclusive evidence that “big is better” in the REIT universe, at least not in the office/industrial and apartment sectors.