Why REITs, Why Now?

David J. Hartzell and Reagan A. Pratt
Executive Summary

The real estate investment trust (REIT) market has grown from under $10 billion in 1990 to almost $160 billion in August of 1998. Along with this growth has come an increase in liquidity for shares of individual REITs, and for the REIT market in general. Although REIT returns are off with the broad market in 1998, performance since 1992 has been strong. In addition to high returns, REITs also have provided high dividend yields and exhibit a low correlation with other financial assets. Therefore, investors can reduce overall portfolio volatility by adding REITs to their mix of financial assets.

Since REITs must distribute 95% of their net income to shareholders to maintain their tax-exempt status, they have high dividend yields, averaging over 5% throughout the 1990s. Further, with a beta of 0.32, measured over the 1992-June 1998 period, REITs are a defensive investment vehicle. Although overall volatility in the stock market has increased recently, REITs can provide investment benefits to a carefully designed portfolio.

Introduction

For individual investors, the primary mechanism for obtaining real estate exposure in their portfolios has typically been to invest in limited partnerships with a group of like-minded investors acquiring a limited number of properties. In many cases, these investment opportunities have led to significant yields, as well as the potential for tax benefits. Along with these potential returns have come investment constraints including a lack of liquidity, which was particularly costly to investors during the last downward cycle in the real estate markets. In addition, investors typically have little property diversification in their portfolios.

For reasons related to these barriers to real estate investment for individual investors, Congress in 1960 created the real estate investment trust, or REIT. The real estate investment trust was created as an efficient vehicle for pooling the investment capital of a large number of investors. Investors own shares in the REIT, which owns real estate assets. Shares are freely transferable to other investors, and typically trade in public markets. Further, as long as the REIT satisfies certain requirements as set forth by the enabling legislation, it pays no income taxes at the corporate level. Dividends are, however, taxable to the individual investor. Therefore, the REIT is a tax-favored investment, allowing an individual or institution to gain broad exposure to the real estate markets. In addition, since these securities are listed on national exchanges (principally the NYSE), REITs provide liquidity as well.

In many cases, REITs can provide investment benefits in a mixed-asset portfolio. REITs generate dividends that are high relative to their stock counterparts, and they have also proven to exhibit less volatility than the overall stock market. In addition, the potential for competitive return and substantial portfolio diversification is obtainable from a well-chosen portfolio of REITs.

The REIT Market in a Nutshell

As mentioned above, REITs generally pay no federal taxes on income as long as certain requirements are met. Several key requirements for a REIT to qualify for this status are as follows:

- 95% of the REITs ordinary taxable income must be paid out as dividends;
- The REIT must have a minimum of 100 shareholders;
- At least 75% of total assets must be invested in real estate assets;
- At least 75% of gross income must be derived from rents or mortgage interest; and
- No more than 30% of gross income may be derived from the sale of properties held for less than four years.

These restrictions are intended to both assure that real estate income is being passed through to the shareholders in the form of dividends, and that the REIT is purely engaged in buying or developing real estate assets for long-term ownership.
There are three types of REITs that operate under these rules. The first is the equity REIT, which invests most of its assets in equity holdings of income producing real estate assets. In most cases, if more than 60% of a REIT's assets are such holdings, it is termed an equity REIT. The second type of REIT is a mortgage REIT, which holds more than 60% of its assets in the form of mortgages with real estate as collateral. Finally, the last type of REIT is a hybrid REIT, which does not hold more than 60% of its assets as predominantly equity or debt. Today, equity REITs represent about 90% of the total public REIT market capitalization.

REITs have gone through considerable change in the years following their introduction. Since 1990, there has been substantial growth in the REIT market. As recently as December 1990, the total capitalization of all public REITs in existence was only $8.7 billion. Since that time, REITs have grown tremendously, and a large number of REITs have been formed through initial public offerings. The overall result of this growth is a REIT market whose total capitalization in June 1998 exceeded $159 billion (Figure 1).

While this growth has been considerable, many analysts believe that the REIT market still has further room to grow. Commercial real estate represents a significant source of wealth in the United States. Merrill Lynch has estimated that the total U.S. commercial real estate market consists of properties with an aggregate value of $3.5 trillion, nearly one-third the size of the total wealth in stocks (Figure 2). With the market capitalization of REITs at just $159 billion, the percentage of real estate assets that have been securitized as equity REITs is only 4.6% (See Figure 2). While much of the U.S. commercial real estate stock may never be securitized, this gap between private and public holdings has significant room to narrow.

In addition to growth, the nature of the individual REIT has changed as well. When REITs were first introduced, they were primarily mortgage REITs lending to fund construction and development of commercial real estate. In the 1970s, as overbuilding led to increasing vacancy rates and less of a need for construction and development, lending activity for these REITs declined. In addition, given the risky nature of construction lending, many borrowers defaulted on their loans, turning ownership of properties over to the REITs that were ill equipped to manage them. The overall impact on the REIT market was substantial, with mortgage REITs losing significant amounts of capital.

Unlike REITs of the 1970s, today's REITs are primarily equity-oriented, with direct ownership in income-producing property. Today equity REITs are the dominant type of REIT. Of the 215 REITs comprised by the National Association of Real Estate Trusts (NAREIT) universe, 178 (82.8%) are equity REITs. As a percentage of total market capitalization, equity REITs are more dominant, accounting for 90.5% of the $159.9 billion market cap of the NAREIT universe. This is in sharp contrast to 1990 when equity REITs represented just 64% of the total value of REITs. As part of this evolution since 1990, many of the nation's premier real estate management companies have become REITs, allowing investors the benefits of their expertise. In addition, while the average equity market capitalization of REITs in 1992 was $133 million, the average market capitalization as of June 1998 was $1.1 billion (Figure 3). Of the 67 REITs in existence in 1992, only one had a market capitalization greater than $1 billion. Currently, of the 124 REITs within the Wilshire Real Estate Securities Index (WRESI), 42 have market caps that exceed $1 billion.

The REIT market has created the opportunity for individual investors to gain exposure to real estate in their stock portfolios. Today's REITs are generally mid-cap stocks, which generate substantial income from the rents that are earned by the properties that they own. Investors receive this income, as well as the potential

**Figure 1**
Total Market Capitalization of Publicly Traded REITs 1990 - Q2 1998
for capital gains due to increases in the value of property held in REIT portfolios. These characteristics have led to increased demand for REIT stocks by individual and institutional investors, which combined with the willingness of private owners of real estate to convert to public ownership, has led to significant growth in the REIT market.

PERFORMANCE ANALYSIS AND INVESTMENT RATIONALE

REIT Returns and Volatility

The long-run performance of REITs including the period prior to the beginning of the substantial growth of the market in 1991 shows that REITs have done well, on both an absolute and relative basis. For the period 1978-Q298 REITs generated slightly lower returns than stocks with lower volatility. Comparing the return per unit of risk (standard deviation) suggest that REITs and stocks were almost identical at 0.77 and 0.75 (see Figure 4).

Since the characteristics of the REIT market changed after 1991, it is useful to look at performance since 1992. As measured by the WRESI, REIT returns for the period from 1992 through the middle of 1998 are roughly similar to those earned by the stock market. While stock returns, as measured by the Russell 2000, averaged 17.1%, REIT returns were lower, with an average annual return of 13.9% (see Figure 4). The performance of the utility sector, often offered as a comparable investment to REITs, was slightly lower than the REIT market, earning a total return of 13.7%.

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Figure 4
Return and Volatility Selected Asset Classes 1978 - 1998

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<tr>
<td>REITs</td>
<td>14.1%</td>
<td>18.3%</td>
<td>0.77</td>
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<tr>
<td>Stocks</td>
<td>15.8%</td>
<td>20.9%</td>
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<tr>
<td>Utilities</td>
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<td>na</td>
<td>na</td>
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<tr>
<td>Bonds</td>
<td>10.1%</td>
<td>8.1%</td>
<td>1.25</td>
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<td>1992 - 1998</td>
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<tr>
<td>REITs</td>
<td>13.9%</td>
<td>12.7%</td>
<td>1.09</td>
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<tr>
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<tr>
<td>Bonds</td>
<td>7.7%</td>
<td>5.1%</td>
<td>1.52</td>
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REITs = Wilshire Real Estate Securities Index
Stocks = Russell 2000 Index
Utilities = Standard and Poor Utility Index
Bonds = Lehman Government & Corporate Bond Index
na = not available

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Figure 2
U.S. Investable Wealth
June 30th, 1998

Source: Merrill Lynch.

Figure 3
Average Market Capitalization, Equity REITs, 1992 vs 1998

Source: Wilshire Real Estate Securities Index,
Heitman/PRA Securities Advisors.

As measured by the Wilshire Real Estate Securities Index (WRESI), Wilshire includes only Equity REITs and real estate operating companies. As of June 30, 1998 the index had 124 companies with a total market capitalization of $141.4 billion.
In addition to earning returns that are comparable to the broader stock market, REIT returns have also exhibited lower levels of variability (or risk) than the overall stock market. One common way to assess risk is to determine how REIT returns move with the overall stock market. The measure of relative volatility is called beta, and it simply measures the percentage change in REIT performance, for example, for a 1% change in the market. Stocks with betas less than one are less volatile than the market, and stocks with betas of greater than one are more volatile than the market. Betas calculated for the REIT market demonstrate that on average, the REIT beta was substantially less than one. The beta of 0.32 calculated for the period 1992 to Q298 indicates that for every 1% swing in the market, REIT returns moved by 0.32%*. Therefore, when market returns increased, REIT returns were dampened. On the other hand, when the market fell, REIT returns only fell by 0.32% of the market decline.

Part of the reason for the low beta exhibited by REITs is due to the relatively high contribution of income to their total returns. On average, of the 13.9% total return earned by REITs during the 1991-1998 period, 6.2% was attributable to dividends received by investors. The remainder of 7.7% was generated by increases in REIT share prices. By contrast, stocks in the broader market earned an income return of 1.6%, and an appreciation return of 15.3%. The higher and more stable income return generally leads to the lower levels of volatility exhibited in the REIT market.

**High Dividend Yields and Income Returns**

Because they must pass through 95% of their net income as dividends, REITs have traditionally offered high dividend yields relative to their stock market counterparts. Figure 5 compares the dividend yield between the Russell 2000 and the Wilshire Real Estate Securities Index for the 1992-Q298 period. Historically, the REIT market has offered a dividend yield in the 5-7% range, on average. Individual REITs may fall above or below this range. By contrast, the dividend yield earned by the Russell 2000 in the 1990s has never exceeded 2%, and has declined to its current level of approximately 1.23%, while the Wilshire is yielding 5.31%. Since 1992 the spread between the WRESI and R2000 has averaged 4.35%.

Like REITs, utility stocks provide a higher dividend yield than the broader stock market. We have compared utility stock yields with REITs yields over the 1993-Q298 period in Figure 6. Utility yields are lower than REIT yields in every year except 1997. In addition, REITs spreads have widened versus utilities over the past six months, to their highest level since 1995. The higher yield on REIT stocks has not been at the expense of total return. Figure 4, showed that utility stocks had a lower return and higher standard deviation that REITs over the 1992-Q298 period. This suggests REITs provide an attractive investment alternative for those investors interested in high yields and a consistent stream of income. Unlike bonds or utility stocks, which provide high levels of current income, REIT share prices also provide the potential for capital appreciation from sources internal to the properties that they own, and from development and acquisition of new properties to their portfolios.

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* Betas are regression coefficients estimated by regressing, in this case, the Wilshire Real Estate Securities Index on the Russell 2000 Index. The betas reported use quarterly data from 1992 through the second quarter of 1998.

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**Figure 5**
Dividend Yield, REITs vs. Commons Stocks, 1992 - 1998

Yields for REITs are represented by the Wilshire Real Estate Index. For Stocks, yields are represented by the Russell 2000 Index.
Source: Bloomberg, Wilshire, and Heitman/PRA Securities Advisors.
Diversification Benefits of REITs

Real estate has been argued to provide diversification benefits when added to a portfolio of financial assets. Diversifying into different types of investments reduces overall portfolio variability and risk if the assets’ returns do not perform similarly to each other. This is the basis of modern portfolio management. The degree of co-movement is measured by the correlation coefficient, which ranges from -1 (perfectly negative relationship among asset returns) to +1 (perfectly positive relationship). A correlation coefficient that is smaller than one indicates that adding the asset to a portfolio can reduce overall portfolio risk.

REITs represent investment in real estate, but their shares are publicly traded on the stock market. As suggested by the positive (but small) beta reported earlier, the REIT market exhibits returns that have a relationship with the overall stock market that is generally weak. In Figure 7 we summarize the correlation of REITs with other asset classes. The low correlation (0.38) between the WRESI and R2000 suggests that combining REITs with stocks in a portfolio could significantly reduce the risk of the overall portfolio below that which would exist if REITs were not held in the portfolio. It is noteworthy that REITs also have a low correlation with bonds and utilities. Utilities on the other hand, have a very high correlation with bonds (0.79). This is consistent with the notion that utilities are "pure income stocks" while REITs have an element of both income and growth in their performance.

The low correlation between REITs and stocks has important implications for portfolio management and performance. As a concrete example, we provide results for adding REITs to a portfolio of stocks represented by the R2000, comparing overall return per unit of risk for the portfolio with and without REITs. Recall that the ratio of return to risk is a common measure of risk-adjusted return. As indicated in Figure 4, the total return for the Russell 2000 over the 1992 to Q298 period was 17.1%, and the standard deviation, or risk, of this return over the period was 12.8%. This combination of risk and return offers a return per unit of risk of 1.33. Because of the low correlation between REITs and the overall stock market, combining the two sectors can lead to a lower ratio. To demonstrate this point (although not a recommended strategy), if an investor held 38% of his portfolio in REITs, and 62% in the Russell 2000, the risk/return ratio could be improved to 1.43. This implies that the standard deviation of returns earned by a combined portfolio is...
substantially less than that of a portfolio holding only the Russell 2000, and demonstrates the benefits obtainable by combining asset sectors whose returns are less than perfectly correlated. The combination of 62% in the Russell 2000 and 38% in REITs provides the optimal risk/return ratio. All other combinations provide a lower ratio than 1.45.

REIT Liquidity

One of the benefits of REIT investment over direct investment in private real estate is liquidity. Since REIT shares are publicly traded, investors can trade into or out of the market as they desire. Small investors can gain exposure to the real estate market with small investments, while larger investors can take more substantial positions with the knowledge that they can sell their shares as their portfolio needs change.

As with most other aspects of the REIT market, liquidity in the form of trading volume has increased since 1992. At that time, it took 3.93 days, on average, to trade 100,000 shares of the twenty largest stocks. Similarly, 2.51 days were needed to trade $1 million worth of the 20 largest stocks. By June 1998, these figures had declined to 0.58 and 0.2 days, respectively (Figure 8). Clearly, the level of liquidity has increased in the REIT market.

In 1992, the average daily volume of the entire REIT market was 1.1 million shares, while in 1998, the largest company in the Wilshire Real Estate Securities Index, Starwood Hotels and Resorts, exhibited an average daily volume of nearly one million shares itself in the second quarter. During that period, the average daily volume for the Wilshire Real Estate Index was 13.5 million shares, for a total volume of $333 million per day. By contrast, the 1.1 million shares traded daily in 1992 had a total market value of only $9.2 million. Therefore, the average daily market value traded has gone up by 36 times ($332m/$9.2m.), while the overall market capitalization has gone up 16 times ($141 b./$8.9b)

REIT Investment Risks

Real Estate Market Conditions

Much as the underlying business for any company has an impact on its stock performance, the real estate market influences REIT performance. Equity REITs invest in a multitude of property types, including office buildings, industrial facilities, hotels, apartment buildings, retail centers, golf courses, and many others. Each of these sectors has its own cycle, with differing factors impacting the supply of and demand for space. For example, among the factors affecting office demand is the growth in employment in sectors such as Finance, Insurance and Real Estate (FIRE) and in services industries. Typically, as this employment grows, supply in the form of new office buildings comes on line to meet the demand. In addition, because real estate supply and demand is highly localized, there can be substantial market to market differences within property sectors. This makes analysis of national trends less meaningful for REITs than for many other economic sectors.

The pronounced real estate down cycle from 1988-1992 was primarily a supply driven phenomena. Considering the office market, many factors led to an expansion of the office supply relative to the underlying demand for the space. Tax laws and abundant capital led investors to respond to demand stimuli by developing buildings. The result was that more space was created than was needed. At the same time, demand continued to expand even through the recession. At the national level, no single year during the 1988-1992 period saw negative net absorption of office space. Certainly new demand slowed, but it was excess supply that caused the extreme market cycle.
Part of the explanation for the overbuilding that occurred is due to the length of the construction period for office buildings. Once demand is strong enough to indicate the need for more office space, it often takes two years or more for the completion of a building. In addition, several developers may see the same demand for space at the same time, and they may all begin to construct buildings. In the 1980s, these phenomena led to overbuilding in the office sector, and created more space than was needed. Given the shorter time frame for development of apartment, industrial and retail properties, for example, the overbuilding was not as extreme.

The period of rapid growth in the REIT market since 1992 has coincided with real estate markets that have been recovering from a period of severe overbuilding. In general, real estate markets have been strong since 1992, with increasing demand for space and little construction of new space to meet the demand. This combination has led to increasing rents and values in most markets, which has in turn led to relatively strong REIT performance. As construction increases, however, the balance of supply and demand could begin to change. If construction increases beyond the level needed to meet demand, rents and values could fall. While analysts currently believe that investors and developers are more wary of constructing unneeded space, and hence will not oversupply the real estate market as they did in the 1980s, this still is a risk faced by REIT investors.

To summarize, real estate markets are cyclical, and in the past the cycles have had high amplitudes due to over-reaction of supply to perceived demand. In the future, the cycles are expected to be less volatile, as market participants are less likely to continue to invest their funds in unneeded properties. REITs will play a strong role in this moderation of supply, as they become more important components of the real estate markets. Increased Wall Street and investor scrutiny of real estate has been an important byproduct of the increased securitization of equity real estate. Improvement in both the quantity and quality of real estate information available today should lead to more efficient real estate space markets going forward. The result should be much less volatility in the underlying assets from which REITs generate earnings.

Stock Market Conditions

Since REITs are publicly traded stocks, their performance is also related to the stock market, as described above. Therefore, as we have seen in August 1998, as the stock market falls, so may REITs. Given the low betas of REITs, however, they tend to move with less volatility than the overall stock market. If a strong correction occurs in the stock market, there should also be a decline in REIT shares, but with an average beta of 0.32, the decline should be smaller than that which occurs in the stock market. Although the character of REITs has changed since 1992, a period during which there has been no bear market, historically REITs have outperformed in bear markets. During the past four bear markets dating back to Q173 REITs have outperformed the S&P 500 Index by an average of 18.3% (Figure 9).

Figure 9
Comparison of Equity REITs (excluding healthcare) and S&P 500 in Bear Markets.

Source: Bloomberg, NAREIT, and Heitman/IPRA Securities Advisors.
The evidence from our analysis of beta suggests that REITs could play a defensive role in a market downturn, but most of this measurement has occurred in a strong stock market. Intuitively however, the nature of the underlying assets suggests that REITs should continue to offer defensive possibilities. The long lease terms associated with many types of real estate (e.g., office, retail, industrial) suggest REITs will be less exposed to short-run swings in demand within their core assets, leading to more stable cash flows. This, combined with high dividend yields driven in part by the requirement to pay out 95% of taxable income, suggest strong defensive characteristics for REITs.

To determine REIT performance in market upturns and downturns, we segmented the monthly returns since 1992 into those months in which the overall stock market return was positive, and those months in which the market return was negative. During this period, there were 52 “up” months, and only 26 “down” months experienced by the Russell 2000. During the “up” months, the beta coefficient for the REIT market was 0.31, while during the “down” months, the beta coefficient was 0.35. This indicates that REIT return performance is symmetric, in that REIT returns move in consistent ways relative to the stock market independently of the performance of the market. Again, whether this performance will continue in the future is a matter of speculation, but the evidence suggests that it will.

**Recent Performance History**

The second quarter of 1998 was a tough quarter for REIT investors. While the S&P advanced 3.3% in the face of a second quarter earnings season fraught with uncertainty, REITs were beaten down despite little expectation of earnings disappointments. For the quarter the Wilshire Real Estate Securities Index (WRESI) declined 4.6%. Year to date the WRESI was down 5.3%. By comparison, the S&P was up 17.7% at the end of Q2 1998. Since the end of 1997, the average multiple (unweighted) has declined 8.3%, from 13.3 times 1998 Cash Available for Distribution (CAD), to 12.2 times 1998 CAD.*

Investors need to understand two sets of markets in order to understand the performance of REITs thus far in 1998. There are real estate markets from which REIT earnings are generated, and there are capital markets in which REIT stocks are traded. Real estate

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* Source: Federal Reserve Bank of St. Louis, Koll’s National Real Estate Index, and Heitman/PRA Securities Advisors.
space markets remain generally healthy. No matter which data we use to assess real estate fundamentals we come to the conclusion that the markets are in good shape. Although the excess or abnormal risk adjusted opportunities of the past several years appear to be diminishing, real cap rates as measured by the spread over inflation, even for office properties, are at 10-year highs. With cap rates on office properties averaging around 8.8% and the 10-year treasury around 5.6%, the implied risk premium on office real estate is in excess of 300 bps. The average spread over the past 12 years has been just 140 bps (see Figure 10).

Many REITs continue to reap the benefits of imbedded internal growth from properties acquired over the past 36 months. In an environment of low real estate prices and plentiful equity for REITs, companies were able to buy quality assets inexpensively, and with the expectation of excellent revenue growth. These favorable acquisitions continue to be reflected in strong Funds from Operations (FFO) per share growth**. For 1998 we expect average growth in excess of 15% for the 128 companies that constitute our universe. Looking ahead to 1999, average FFO per share growth for companies in the WRESI is projected to slow to about 11.5%. While this is 370 bps below the 1998 estimate, it is still healthy, respectable growth and above the growth obtained in 1997.

We do not think that the slower expected earnings growth in 1999 explains the degree of weakness in the REIT market this year. Slower growth in 1999, while perhaps not fully factored into market prices in 1997, was certainly part of the basket of market information available to investors. We believe the current weakness in REITs is much more a capital market phenomenon than a real estate market phenomenon. Securitized real estate equity is a tiny but rapidly growing segment of the capital markets. To date, more focus has been placed on the rapid growth than on the relative size of the REIT market. While the market capitalization of the WRESI has increased at a compound annual rate of 54% since the end of 1991, the entire index is still just slightly larger than the market cap of Intel. The small size of the REIT market, particularly relative to the amount of real estate available to be securitized, suggests the possibility of substantial growth. The small size also makes the REIT market and individual REITs extremely sensitive to broader capital market flows. The REIT market thus far in 1998 has displayed this sensitivity to negative capital flows as growth oriented investors have left the sector.

It does not necessarily follow that because earnings growth (not earnings) may peak in 1998, that there will be a deep valley beyond. While neither the real estate cycle nor the economic cycle has been eliminated, we believe overall peak-to-trough swings in real estate markets will be less severe than in the past. Further, with relatively low levels of debt and only limited development on the books, most REITs are well positioned to ride any cycle. A dividend yield of 5.5% and earnings growth of 8-12% for 1999 suggest a total return in the low to mid-teens over the next 12 months. This assumes current multiples hold.

It is much harder to forecast broad capital market flows than it is to forecast space markets or REIT earnings, and we believe the current REIT market weakness to be squarely on the capital market side. Certainly the case can be made for attractive REIT valuations relative to general equities. In terms of yield and the quality of the dividend coverage, REITs look attractive as well. For yield-oriented utilities investors REITs appear to offer superior dividend yield at a significant multiple discount to the S&P Utility Index. As mentioned above, REITs must pay out 95% of their net taxable income in order to retain their tax exempt status. As many REIT's approach this payout minimum, some significant dividend increases are expected as REITs continue to grow their FFO per share. All of this suggests that defensive and yield oriented investors could look to REITs in the near term. If this happens, a second half rally is certainly possible.

Conclusions

Although REITs have existed since the late-1960s, it is only since 1992 that they have become viable investment vehicles for sophisticated individual and institutional investors. The rapid growth in the market since 1992 has created an opportunity for investors to obtain the benefits of adding real estate to their portfolios. The increase in the number and scope of REIT investments, as well as the increased liquidity available to the REIT investor, have provided a tradable real estate vehicle that can satisfy many portfolio objectives.

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* Cash available for distribution (CAD) provides the best measure of the monies generated by a REIT. While there is no standardized definition of CAD, it is generally calculated as FFO (see note below) less non-cash revenues (e.g., straight-line rents), less on-going capital expenditures made to maintain the existing real estate assets.

**FFO is considered a better measure of REIT performance than net income. FFO is defined as net income (calculated in accordance with generally accepted accounting procedures, GAAP) before gains or losses on sales of assets, before extraordinary items, plus depreciation from real property. Because depreciation (a non-cash expense) is a large number for most REITs, FFO provides a better indication of cash generated, than does net income.
REITs in the 1990s have provided a high and consistent dividend yield, contributing to a strong total return. In addition, REITs have provided diversification benefits, as indicated by the low correlation of REIT returns with those earned by other financial assets. In addition, REITs have also proven to be defensive investments, exhibiting a beta of .35 over the Q192-Q298 period.

Overall, the new REIT market of the 1990s has created an opportunity for investors to add real estate to their portfolios. The performance measures cited here are for a broad portfolio of real estate related stocks as measured by the Wilshire Real Estate Securities Index. A selective approach to portfolio construction, based on an understanding of real estate fundamentals and how individual REITs will perform under different real estate market conditions, can lead to even more favorable returns than those presented here.

**Biographies of Authors**

**David J. Hartzell** is NC Real Estate Foundation Professor of Finance and Director of the Real Estate Program at the Kenan-Flagler Business School at the University of North Carolina at Chapel Hill. Formerly, he was a Vice President at Salomon Brothers Inc. in New York, where his primary focus was on institutional real estate finance and investments. He has published numerous academic and professional articles on issues related to the construction of institutional real estate portfolios, real estate finance and mortgage-backed securities. In addition, Mr. Hartzell has received awards for outstanding teaching at the Undergraduate and Graduate levels at the University of Texas and the University of North Carolina. Dave earned his BS and MA from the University of Delaware and his Ph.D from the University of North Carolina at Chapel Hill.

**Reagan A. Pratt** recently joined Heitman/PRA as a Real Estate Securities Analyst from its affiliate Heitman Capital Management. Reagan brings a wealth of real estate research experience to the team through his previous position as Vice President of Investment Research where he was responsible for macroeconomic research and the analysis of the apartment and industrial sectors. He has been with Heitman since 1993 and has been a frequent participant in PRA's portfolio management meetings as the representative from Heitman's private market research group. Prior to joining Heitman Capital, Reagan headed the West Coast office of Clayton Research Associates, one of Canada's premier real estate and economic consultants. He completed a variety of assignments including development feasibility studies for office, apartment, and industrial properties, market targeting studies for national multi-family home builders, transit planning studies and other real estate and economic forecasting. Reagan holds an MS in Business Administration from the University of British Columbia.