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WHY PRIVATE EQUITY OFFICE REAL ESTATE FOR PRIVATE INVESTORS

Individual investors have long held portfolios consisting of stocks, bonds, and cash. Recently, more investors are considering including real estate in their portfolios. In this paper, we use data on private equity investment in office properties as the index for exposure to real estate, and examine the role that this asset class plays in a portfolio.

Real estate is an excellent provider of return from current income. In fact, from 1979-2004, the annual income return on office real estate averaged 7.9%, versus 8.6% for bonds and only 3.2% for the S&P 500. Another benefit of including real estate is diversification. A portfolio allocation of as little as 10% to private equity office real estate would significantly reduce the overall volatility of a portfolio heavily weighted toward stocks, or alternatively, would increase the returns of a portfolio heavily weighted toward bonds. Finally, while average returns on office properties have historically trailed those of stocks and bonds, periods of superior performance have boosted the absolute returns of portfolios that included real estate. For example, during the most recent bear market, from the second quarter of 2000 to the second quarter of 2003, the annualized return for office properties averaged 7.9% versus -11.2% for stocks. When historical volatility is taken into consideration, office properties have outperformed stocks on a risk-adjusted basis since 1980.

Current income, diversification benefits, periods of outperformance, and relatively solid risk-adjusted returns are all reasons for including office properties in private investors' portfolios. In addition to the bond-like nature of leases, the tangible nature of the assets also acts as an inflation hedge. The proportion of an investor's portfolio allocated to office property investment will depend on the need for current income, the sensitivity of the investor to the eroding effects of inflation, and of course, the risk tolerance of the investor.

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Why Private Equity Office Real Estate for Private Investors

Prudent investors are increasingly finding that commercial real estate can play an important role in their overall investment portfolios. And with good reason, as it can provide relatively robust income yields, compelling capital preservation, low volatility, and strong diversification benefits when combined with stock, bond, and cash investments, thereby reducing the volatility of the investor's overall portfolio.

Real estate also makes a portfolio more reflective of the overall investment universe. But to what extent can it offer strong cash flows, provide high absolute returns, and reduce the overall risk of a portfolio? This paper will examine the case for commercial real estate, specifically office investments, in the context of an individual investor's overall portfolio, considering each of these questions in detail.

Introduction

Real estate investment returns comprise both stock-like and bond-like components. For example, consider the real estate asset leased to a single tenant on a long-term basis. The payments on that lease resemble the fixed payments associated with a bond, not with an equity investment. The value of this asset fluctuates in step with the same factors that influence the value of bonds, such as interest rate movements, inflation, and the credit-worthiness of the tenant. At the other extreme, an empty property is driven almost entirely by equity forces. The value of the building is a function of supply and demand for space in that market. As the building becomes more fully leased, it changes from “pure” equity to a debt-equity hybrid, and perhaps — if fully leased to long-term tenants — becomes very debt-like. As the lease on the building in the first example ages, the residual value of the property at lease-end becomes an increasingly important, and finally dominant, component of the asset’s value. Equity issues, such as real estate market forces, economic health, tenant demand, interest rates, and the idiosyncratic nature of the property, such as its location, history, visibility, and neighbors, increase their influence on the asset’s value.[1]

[1] Booth, David G., Daniel M. Cashdan, Jr., and Richard A. Graff, “Real Estate: A Hybrid of Debt and Equity.” ***Real Estate Review***, vol. 19, Spring 1989.

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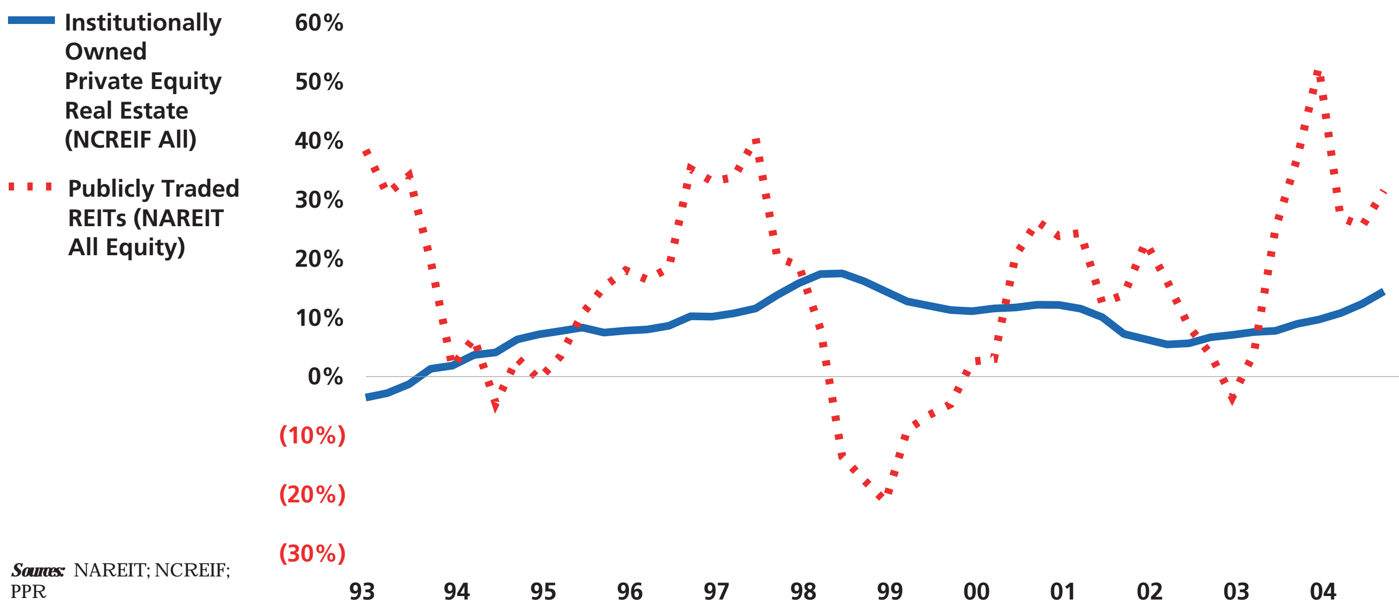
The increased use of non–exchange-traded REITs over the last several years has afforded individual investors greater options for investing in real estate. Professionally managed property investments without the excessive volatility of publicly traded REITs have attracted increasing capital commitments from investors. This is not unlike the creation of commingled funds in the early 1970s, which granted large and small institutional investors access to the real estate asset class on a direct, professionally managed level.

The appeal of non–exchange-traded REITs in lieu of publicly traded REITs is illustrated in ***Exhibit 1***. While public REITs have provided higher returns overall, the influence of capital flowing into and out of these securities has resulted in extremely high volatility. The returns provided by private real estate are lower but when adjusted for risk are much more attractive than those of public REITs.

There are three primary reasons for investors to consider real estate for their portfolios:

1. To deliver current income
2. To achieve moderate returns
3. To reduce the overall risk of the portfolio by combining asset classes that respond differently to expected and unexpected events

EXHIBIT 1: PRIVATE AND PUBLIC REAL ESTATE RETURNS, 1993Q4–2004Q4



Sources: NAREIT; NCREIF; PPR

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Given increased concerns about stock market volatility and the effect of an inevitable rise in interest rates on bond portfolios, it is time to take a fresh look at the role of commercial real estate in investment portfolios, particularly in the context of the individual investor who has taken an increasingly larger position in the asset class.

Strong Source of Current Income

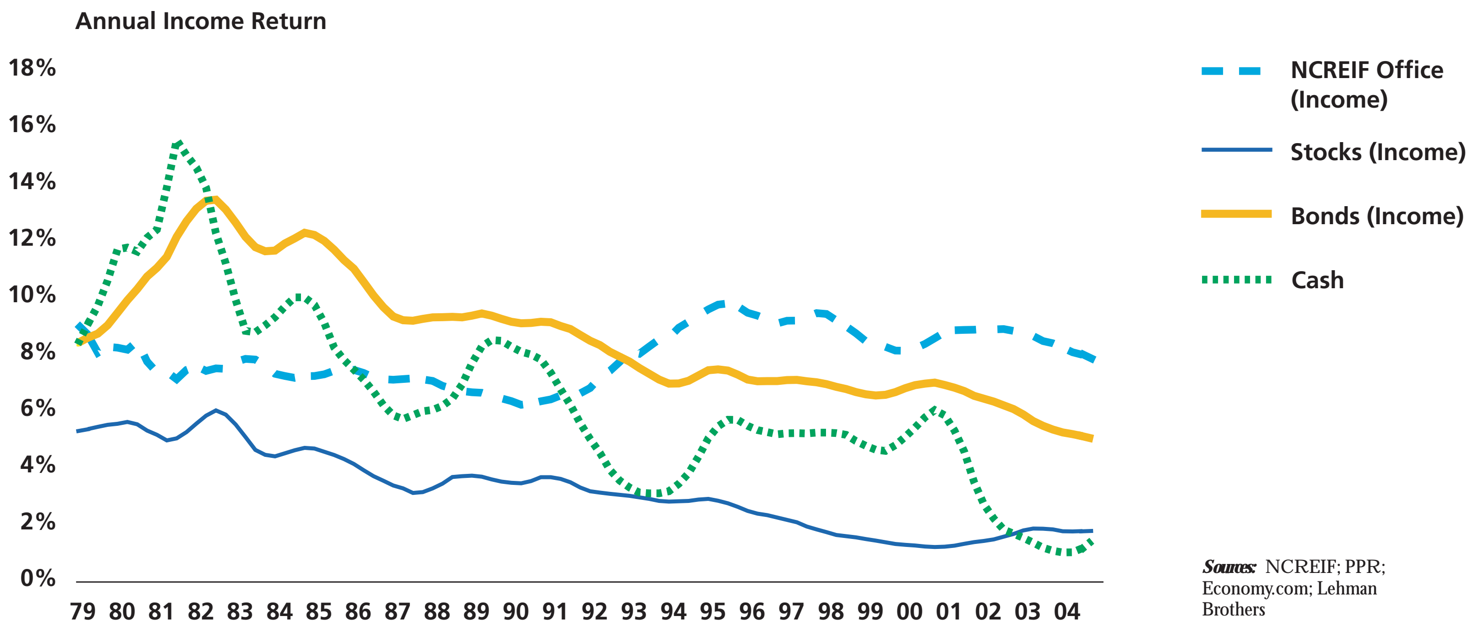
Exhibit 2 illustrates the relative income return on office properties versus stocks, bonds, and cash.[2] And there is no comparison: over the last 10 years, office real estate has been head and shoulders over other investments in producing "cash, cash, cash" for investors. In fact, since 1978, only bonds have produced better average income returns, with average yields of 8.6% versus 7.9% for non–exchange-traded office investments (compared to 6.5% for cash and only 3.2% for stocks).

However, income returns on office properties have been exceeding bonds since 1993, and the current spread of nearly 280 basis points between office and bond income returns is near its record high, as bond yields have fallen along with interest rates, and real estate yields have remained much more resilient.[3] If investors are concerned about how much of their total return is derived from current income, then real estate is the clear winner. Of course, tax considerations must be taken

[2] For purposes of this paper, private equity office refers to the office component of the National Council of Real Estate Investment Fiduciaries Index, which is an unlevered index of institutionally owned private equity real estate; stocks refers to the S&P 500 Index; bonds refers to the Lehman Brothers Corporate/ Government Bond Index; and cash is the 30-day Treasury Bill rate.

[3] As of 2004Q4.

EXHIBIT 2: INCOME RETURN SUMMARY, 1978Q4–2004Q4



Sources: NCREIF; PPR; Economy.com; Lehman Brothers

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TABLE 1: REAL ESTATE RETURN AND RISK PARAMETERS FOR OPTIMIZATION, 1978Q4–2004Q4

Asset Class	Return	Standard Deviation
Office	8.8%	9.0%
Stocks	14.5%	17.0%
Bonds	9.4%	7.9%
Cash	6.5%	3.3%

Sources: NCREIF; PPR; Economy.com; Lehman Brothers

into account on an individual basis in any investment strategy, as taxes will always affect realized returns.

Real Estate as a Return Enhancer

The second possible reason to include office in an investment portfolio is to bring moderate absolute and/or risk-adjusted returns to the portfolio. The data in ***Table 1*** show that, on average, office did not outperform stocks and bonds in absolute terms over the last 26 years. When assessed in terms of total return per unit of risk, however, office does outperform the stock market.

Hence, although there is justification for including office in a portfolio from the perspective of risk-adjusted returns, it is not immediately justifiable to include office for the sole reason of bringing high ***absolute*** returns to the portfolio. Two other questions about office's ability to deliver high absolute returns must be asked.

- Did office outperform other asset classes in some quarters? Absolutely! (see ***Exhibit 2***) So there are periods in which office is able to "bring home the bacon" relative to other asset classes (i.e., annual office returns outperformed annual bond, cash, and housing returns from 1996Q2–2001Q2, and annual stock returns from 2000Q2–present).
- Could office outperform stock or bonds in the future? Definitely — the drivers of stock and bond performance are different from those that propel real estate performance. Conditions could change in ways that favor the drivers for real estate but hurt those for stocks and bonds. For example, as we'll see later, inflation is good for real estate but not for stocks and bonds. In addition, with interest rates near 35-year lows, it is unlikely that bond returns going forward will be as strong as they have been for the past 20 years.

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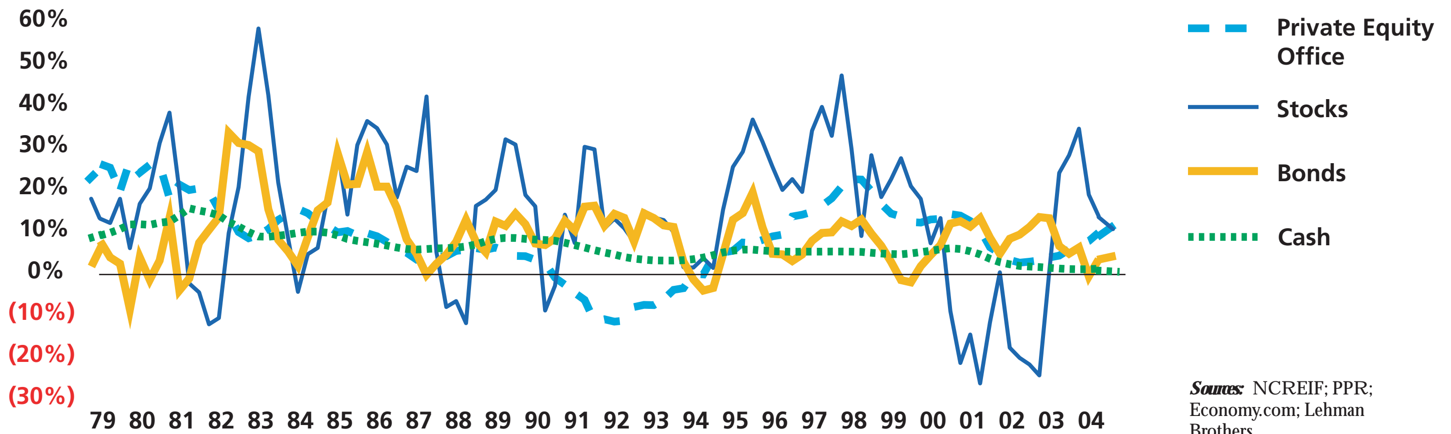
EXHIBIT 3: REAL ESTATE HAS PRODUCED MODERATE RETURNS

Annual Total Returns



Sources: NCREIF; PPR; Economy.com; Lehman Brothers

So, while office does not consistently produce high absolute returns relative to stocks and bonds, it has outperformed other asset classes in the past and could do so in the future (see ***Exhibit 3***). In fact, it's interesting to note that office outperformed stocks during the low point of the office cycle, and that while stock market returns have been improving this year, office market returns are also poised to recover going forward for a variety of fundamental reasons. More specifically, the increase in vacancy rates has slowed dramatically over the last several quarters; new construction is nearing a cyclical low; and tenant demand for office space will increase as job growth continues to improve in step with the economic recovery.

Real Estate as a Portfolio Diversifier/Risk Reducer

The correlations between office and stocks, office and bonds, and office and cash suggest that office can play a significant role in a mixed-asset portfolio (see ***Table 2***).

TABLE 2: ASSET CLASS RETURN AND RISK PARAMETERS, 1978Q4–2004Q4

Asset Class	Return	Standard Deviation	Office	Stocks	Bonds	Cash
			Correlation Coefficients			
Office	8.8%	9.0%	1.00	0.11	-0.20	0.52
Stocks	14.5%	17.0%	0.11	1.00	0.23	0.08
Bonds	9.4%	7.9%	-0.20	0.23	1.00	0.13
Cash	6.5%	3.3%	0.52	0.08	0.13	1.00

Sources: NCREIF; PPR; Economy.com; Lehman Brothers

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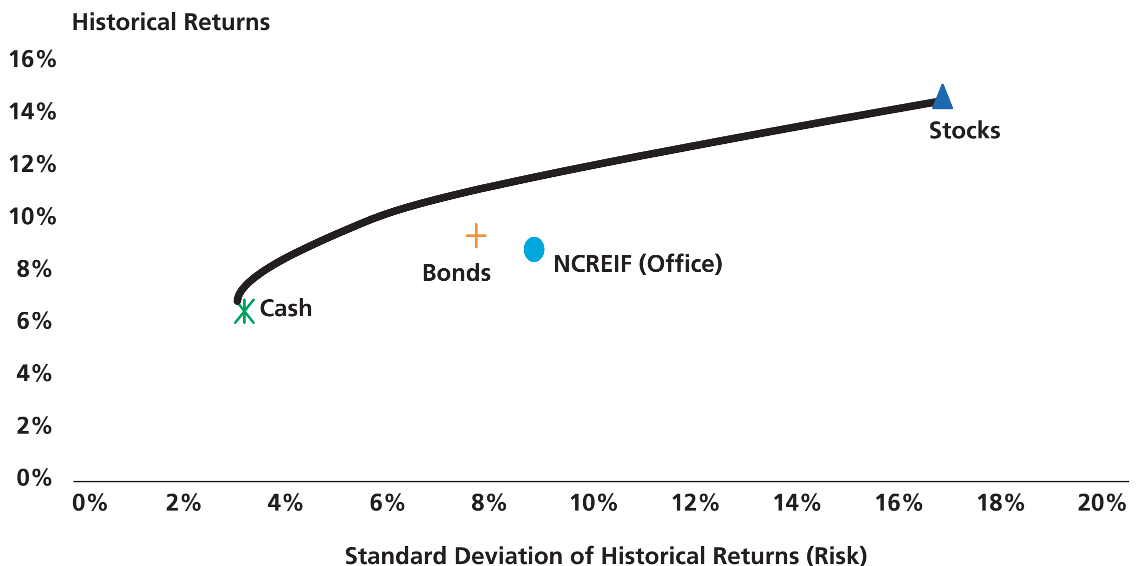
Whenever two assets produce returns that differ from one another over time, an opportunity exists to earn a greater return at each level of risk (or reduce risk for a given level of return) by combining the assets in a portfolio.[4] How differently two asset classes behave over time is measured by correlation, with a correlation of 1.0 meaning that the asset classes behave perfectly with one another (think skis and ski boots) and a correlation of -1.0 meaning that the asset classes behave in perfectly opposite ways with one another (think skis and ice cream).

[4] Take the simplified example of skis and ice cream: if ski sales return 50% per month in the fall and winter but only 10% per month in the spring and summer, and ice cream sales return 50% per month in the spring and summer but only 10% per month in the fall and winter, a vendor could sell both skis and ice cream and realize very little volatility in returns throughout the year (hence, risk is reduced) without reducing the vendor's overall return for the year, which remains 30% regardless.

When the return to an asset class is high enough, the risk is low enough, and/or the correlation reflects a sufficiently different pattern of returns, the asset class earns a place in the portfolio for at least a portion of the risk/return spectrum. Office meets these tests and should therefore be a component of a well-diversified, mixed-asset portfolio.

Using modern portfolio theory, it is possible to construct portfolios with optimal allocations of various asset classes (given the risk and return profiles of each of the asset classes as well as the historical correlation of the assets with each other) so the expected return for any given level of risk is maximized (or, said differently, the level of risk is minimized for any given expected return). Differing investor risk tolerances will call for differing asset allocations. The combination of all of these optimal portfolios is known as the efficient frontier. ***Exhibit 4*** illustrates the efficient frontier using portfolios of office, stock, bond, and cash investments. Also depicted is the place in risk/return space of the various asset classes.

EXHIBIT 4: THE EFFICIENT FRONTIER



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Office's role extends across the risk spectrum of the efficient frontier in a fairly normally distributed fashion, with lesser amounts of office called for in low-risk portfolios; 30% or more in moderately risky portfolios; and smaller amounts in high-risk portfolios. This makes sense, as office is a higher-risk asset class than cash, but lower-risk asset class relative to stocks. Clearly, if investors wish to simply go for broke and seek the highest possible return regardless of risk, they will choose to allocate heavily toward stocks and have no allocation in office investments.

Conversely, the most risk-averse investors would be heavily invested in cash and short-term Treasuries, with a small allocation in bonds.

Relevance to the Individual Investor

It is clear that office has more than one role to play. But in order to reach a conclusion about the role of office investments in a particular investment portfolio, we must think about the different types of investors and their needs. In this section, we layer investors' perspectives over the empirical assessment of the behaviors and characteristics of the office market.

A risk-tolerant investor

Office is a risk reducer at low to moderate risk and return levels and probably has little or no role in highly risk-tolerant portfolios. Thus, investors willing and able to seek the greatest return and unconcerned with capital preservation or volatility in returns would not be inclined to allocate part of their portfolios to the office market.

While office does periodically outperform stocks, it is not a way to earn the greatest average return. These investors might include individuals who wish to "go for broke."

However, very few investors are in this group because it is somewhat irresponsible to completely disregard risk.

A moderately risk-sensitive investor

If the investor is mostly concerned with capital preservation but willing to withstand moderately higher portfolio volatility in order to enhance returns, the office market should be an important part of the portfolio. Lower return requirements and greater risk concern will reduce the allocation to office and stock investments in the lower third of the risk spectrum, but investors seeking higher

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returns at the cost of modestly more risk should increase their allocation to office and stock investments. For most investors, the optimal allocation to office investments is in the range of 5%–30%.

Risk-sensitive investors and those who have heavy demands for cash will also have an interest in an asset like real estate, with its relatively high yields. Returns derived from capital gains are riskier than those generated in tangible, realized cash. While overall returns might be lower than those for lower-yielding assets such as stocks, the certainty and size of the cash return is greater.

An inflation-sensitive investor

Real estate is empirically a good, albeit partial, hedge against inflation. Past inflation is partially embedded in rents set previously, because every seller of every product, including sellers of rental space, wishes to keep prices level or rising in real terms. Thus current net operating income (NOI) is partly a function of past inflation — rising if past inflation has been greater, and falling (or rising less) if past inflation has been tame. The speed with which such inflation affects NOI, or the time lag necessary to capture inflation's impact on current NOI, depends on the structure of leases. Current NOI for office properties reflects the inflation experience of between one and 10 years ago, depending on the length of leases in place. The impact of past inflation, appropriately lagged, is positive.[5]

[5] As proved by PPR's model of real estate returns.

Current inflation impacts the levels of current rents and expenses. Current inflation raises NOI by increasing the rental rate on new leases but lowers NOI by raising all expenses. In office properties, current inflation causes NOIs to fall, as the rise in current rents associated with recent leases does not fully offset the increase in expenses, which impact the entire asset. Fortunately, the U.S. economy is currently in an extremely low inflationary environment, thereby sparing office owners the ill effects of a sudden unexpected rise in inflation.

Inflation impacts the capital value return in two ways. First, it affects current NOI, as described above, which feeds through to the value of the property as it lowers or raises future income. However, inflation also influences future NOI growth expectations and, therefore, investors' demand for real estate investments. The direct capital value impact of inflation is significantly positive for office properties. Taken together, the empirical assessment shows that office real estate is a very useful, partial inflation hedge.

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Relative to other asset classes, real estate is truly one of the vehicles best able to at least partially preserve its value during a period of inflation. Inflation-indexed Treasury instruments are another totally foolproof way to hedge, but at the cost of significantly lower returns. Even when the economy seems to have inflation under control, there are ways for inflation to suddenly pop up. An energy crisis, war, or simple miscalculation on the part of the inflation-fighting Fed could easily create a period in which the performance of the office market is truly one of the best (and one of the only) vehicles able to at least partially preserve its value during a period of inflation. Unfortunately, the time to put a hedge in place is before, not after, inflation occurs, so investors with real liabilities in fact need an exposure to inflation hedges at all times.

Conclusions

We have reviewed the empirical rationales for including office investments in an investment portfolio. We have seen that the office market is an excellent generator of current income, and while the office market does not produce the highest absolute returns, it can boost portfolio returns in certain periods. Also, office is a great risk reducer in a low- to moderate-risk portfolio, but probably has no role in a very highly risk-tolerant portfolio. An allocation that is seriously over- or underweight relative to the true investment universe represents a bet away from an important norm and begs an explanation. The explanation can be quite straightforward: "I prefer less risk, and so I am deliberately overweighted in the office market relative to the stock market." Or, "I prefer more risk, and so I am under the market weight of real estate relative to stocks."

Different investors will view these reasons to use office investments differently, depending on their need for reliable income and absolute returns, tolerance for risk, and desire for a defense against inflation. In general, however, investors are well advised to consider the office market's role in how they meet their investment objectives.

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Property & Portfolio Research, Inc. (PPR) was founded by Susan Hudson-Wilson, CFA. PPR is an international real estate research firm that takes a quantitative approach to real estate investment and applies modern finance theory to the design of appropriate real estate portfolios. PPR currently tracks and models the performance of private equity, public equity, private debt, and public debt. Susan Hudson-Wilson, CFA, Founder and Chief Executive Officer of PPR and editor of ***Real Estate/Portfolio Strategist,*** is a well-known and experienced real estate investment strategist.

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