GERSTEIN FISHER
Invest with Reason

Investment Insights: Taking a Global Approach to Investing in Public Real Estate

Real Estate Investment Trusts (REITs) are publicly traded equities that own, finance or operate income-generating real estate. REITs typically own different types of commercial real estate including office buildings and shopping centers, but also can own hospitals, prisons, residential apartments, hotels and timberland. Certain REITs engage in providing financing for real estate. Since the Cigar Excise Tax Extension of 1960 created US legislation for the REIT structure, similar structures have been put in place in over 30 countries around the world.

As of December 31, 2014, REITs as a fraction of publicly traded investable equities represent 2.71% of world market capitalization.[1] Real estate as an asset class (including private real estate), however, dominates traditional equities in terms of aggregate capitalization. While the world equity market capitalization is a bit larger than $64 trillion, the private global real estate market exceeds $156 trillion.[2] REITs provide investors with direct access to an asset class traditionally known for its illiquidity, high transaction costs, and high investment minimums.

REITs offer certain benefits to investors, including historically attractive returns, low correlations to traditional asset classes, low investment minimums, and daily liquidity. The drawbacks of REITs include additional costs (such as management fees) over owning private real estate and higher distributions relative to other equities.

How should an investor think about REITs in a portfolio context? More traditional approaches to building portfolios for clients involve altering the proportion of equities to fixed income to suit client risk tolerances. How do REITs improve portfolio diversification and increase expected return, if at all? Does it make sense to invest in international REITs?

This article examines REITs in closer detail, to understand the benefits and limitations of holding such securities for client portfolios. When evaluating an investment in a different asset class or structure – in this case a REIT – it is important to think critically about the following questions:

- How does the REIT structure work, and what are the implications of this for investors?
- How do global REITs fit in a client portfolio in terms of their impact on overall portfolio risk and return?
- Are REITs a better investment vehicle to gain real estate exposure as compared to a partnership structure?
- Can REIT returns be explained by quantitative investment factors? If so, how can an investor take advantage of a factor-based approach to global REIT investing?

Despite certain drawbacks associated with REITs, in our view the benefits from holding these securities outweigh the costs for most individual investors. The next four sections explore each of the above investment questions in turn.

1 Based on percentage of MSCI World Index that is invested in real estate securities as of December 31, 2014.
2 http://www.globalcitizenrealty.com/pdf/insights/GlobalRealEstate-Insight.pdf

The Mechanics of REITs

Exchange traded REITs, like traditional equity securities, are listed on a stock exchange where they can be bought or sold and earn a share of the profits generated from their real estate investments. To qualify as a REIT, a security must meet the following additional criteria:

- Invest at least 75% of total assets in real estate
- Derive at least 75% of income from real estate activities
- Have a minimum of 100 shareholders
- Have no more than 50% of its shares held by five or fewer individuals
- Pay out at least 90% of its taxable income in the form of shareholder dividends each year[3]

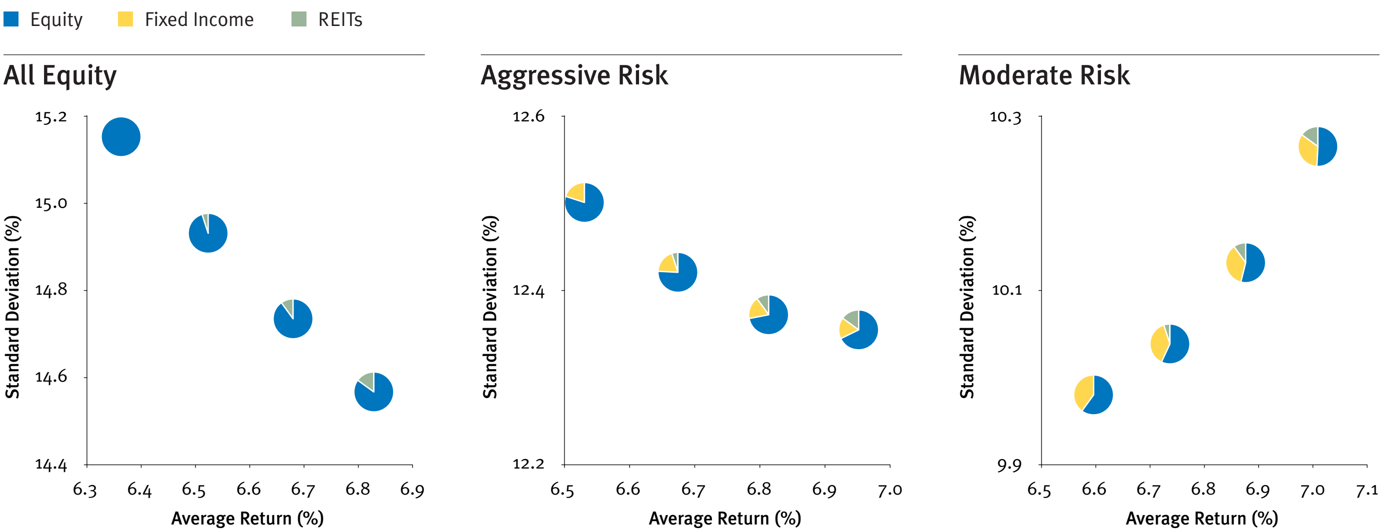
The last criterion explains why REITs tend to pay higher dividends than most traditional equities. This unique feature of REITs has implications for asset location when investing in REITs. Due to the higher taxable distributions, investors should generally look first to hold REITs in tax-deferred, qualified accounts such as 401 (k)s and IRAs. In cases where it makes sense from a tax and allocation standpoint, an investor may also benefit from holding these securities in taxable accounts.

REITs also have preferential tax treatment. Owners of traditional stocks are taxed twice: corporate taxes are paid on income generated by operating assets and investors are taxed on dividends and any capital gains when the position is sold. REITs, however, do not have this double-taxation problem; they are structured like mutual funds as pass-through entities that are not subject to corporate tax.

Building Diversified Portfolios with Global REITs

We believe real estate should be an important part of an investor's portfolio for several reasons. Real estate has historically had similar levels of volatility when compared to equities and often provides additional diversification to a traditional portfolio consisting of equities and fixed income that can lower overall portfolio volatility. Exhibit 1 reports historical returns and volatilities for different linear combinations of global REITs, global fixed income, and global equities over the period January 1990 – December 2014.

Exhibit 1: Scatter Plot of Compound Annualized Return (x-axis) and Annualized Standard Deviation (y-axis) for Different Global Portfolios from January 1, 1990 to December 31, 2014



Each circle represents the performance of a portfolio of equities (blue), fixed income (yellow) and REITs (green) in varying allocations. The left-most figure adds different percentages of REITs to an All-Equity portfolio. The center figure adds different percentages of REITs to an aggressive risk 80% Equity / 20% Fixed Income portfolio. The right-most figure adds different percentages of REITs to a moderate risk 60% Equity / 40% Fixed Income portfolio. Equities are represented by MSCI World (net dividend). Fixed Income is represented by Barclays Global Aggregate Bond Index (unhedged). Real Estate is represented by S&P Global REIT Index (gross dividend before January 2001, net dividend afterwards).

3 Master Limited Partnerships also are required to distribute to shareholders 90% of taxable income and have a similar investment structure to REITs. For more on Master Limited Partnerships, please see: http://gersteinfisher.com/gf_article/investing-insights-master-limited-partnerships-what-to-know-before-you-invest/

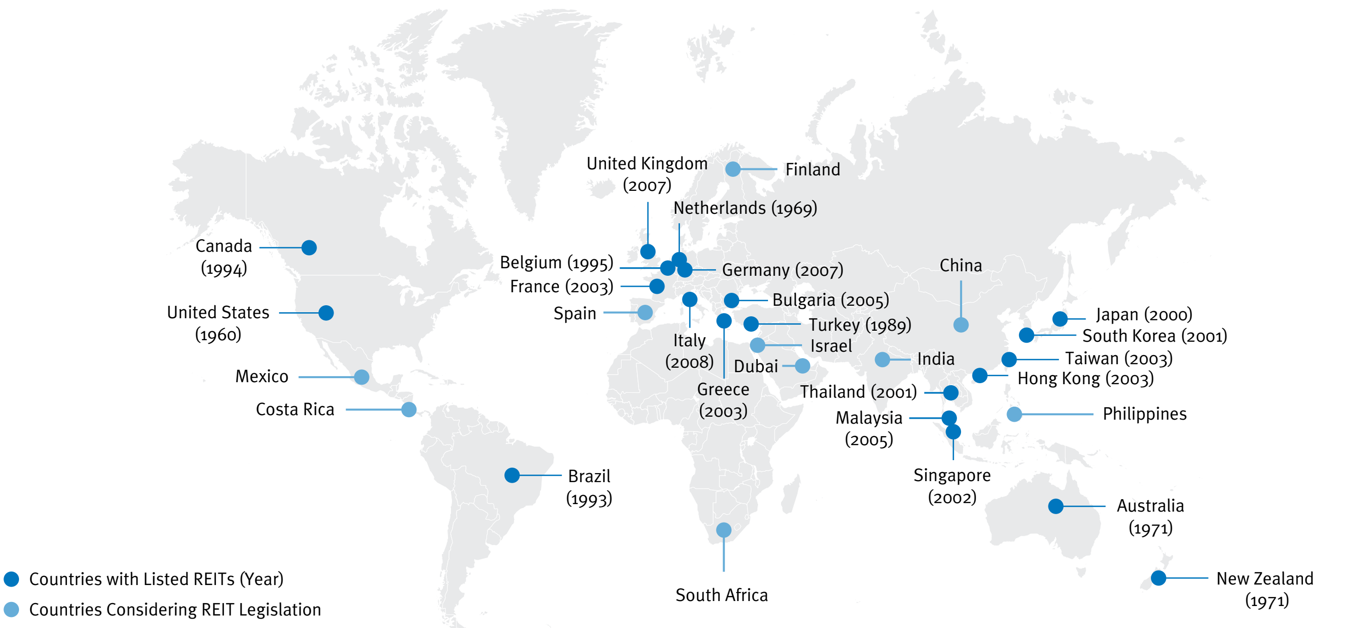
In our analysis, we consider three different reference portfolios consisting of equities and fixed income: All Equity (left), 80% Equity / 20% Fixed Income Aggressive Risk (middle), and 60% Equity / 40% Fixed Income Moderate Risk (right). For each portfolio displayed, we vary the percentage allocation to the reference portfolio and global REITs. In each graph, the circles from left-to-right represent 0%, 5%, 10% and 15% allocation to global REITs respectively. For higher-risk portfolios (All Equity or Aggressive Risk) with high exposure to equities relative to fixed income, we find that increasing exposure to global real estate increases average returns and reduces volatility, leading to large increases in risk-adjusted performance. For the All Equity portfolio, standard deviation drops from 15.2% to 14.6%, while average returns increase by 0.4%. For the Aggressive portfolio, standard deviation drops from 12.5% to 12.4%, while average returns increase by 0.4%. Even for portfolios with moderate risk, we find average returns increase by 0.4% and standard deviation increases from 10.0% to 10.3%, leading to smaller, yet positive increases in risk-adjusted returns. As we show, REITs can offer an attractive risk/return profile that complements other asset classes and can improve risk-adjusted returns, particularly for higher-risk portfolios dominated by equities.

Going Global with REITs

Another important consideration when designing diversified portfolios involves selecting a level of international exposure. There are currently 800 exchange traded real estate companies from 37 countries representing an equity market capitalization of approximately $1.7 trillion.[4] Of that total, non-US-based REITs represent roughly 50% of aggregate exchange traded REIT market capitalization. Exhibit 2 illustrates the countries that currently allow REITs, and the year that REIT legislation was passed.

Many academic papers find evidence of home bias, or investors allocating far fewer investments to international markets relative to domestic markets, ignoring valuable investment opportunities in foreign markets.[5] The same behavior is likely to be true for REIT investments. For an international REIT portfolio, each country exposes an investor to distinctly different macroeconomic and demographic factors (e.g., inflation, GDP growth, interest rates, population growth and unemployment) that are often unique to that particular country or region. Diversification through holding REITs from different countries can lower volatility when compared to a US-only REIT portfolio. When considering the appropriate allocation to

Exhibit 2: Evolution of REIT Legislation in Different Countries



4 As of December 31, 2014, based on MSCI Barra security industry classification defined by the first six digits of a security's GIC code. This number includes 381 securities classified as REITs, and 419 securities classified as REMD or Real Estate Management & Development.

5 For more information on home bias in investor portfolios, please see French and Poterba (1991).

REITs and its structure, several factors come into play in addition to the diversification benefits illustrated in the previous section. The costs of international investing relative to investments in the US include generally higher fund management expenses, higher volatility associated with foreign exchange rates, and foreign dividend tax withholding. Additionally, many US-based investors own their primary residence, which should play a role in how much real estate exposure is appropriate.

What is the Best Way to Gain Real Estate Exposure?

Investing in private real estate partnerships is an alternative way to gain real estate exposure. Private real estate invests in the same types of underlying real estate as a REIT, but is structured as a partnership instead of as a public corporation. When evaluating the best way to obtain exposure to real estate, it is helpful to understand if the investment choice satisfies the following criteria:

- Transparent, with easy-to-understand and explainable results
- Reasonably liquid, to make it easy to sell to meet income needs or other life events
- Low management fees
- Provides high expected returns and diversification relative to other asset classes without large increases in risk

Investing in private real estate involves signing a partnership agreement that details how cash flows are split between the general partners (managers) and the limited partners (investors). These agreements often have opaque structures in which investors have different cash flow rights depending on when those cash flows occur. These features often make it difficult to understand when cash flows are realized and the true underlying value of the real estate at any point in time. Investments of this type often cannot be sold without the permission of the management company, and thus cannot be used to meet income needs or for portfolio rebalancing due to changes in quantities and prices of other asset classes in the portfolio. Additionally, partnership structures involve additional tax compliance issues associated with the filing of K-1s. For these reasons, it is unlikely that investing in private real estate will satisfy one or more of the above criteria.

In contrast, REIT mutual funds generally invest in multiple REITs to diversify REIT-specific risk in much the same way as an equity mutual fund invests in different stocks. The shareholders in a REIT mutual fund earn a share of the income produced by the underlying REITs without having to buy or finance the real estate property. These features make REIT mutual funds relatively transparent (returns can be explained by the REITs they own). The Investment Company Act of 1940 that regulates mutual funds mandates daily liquidity to exit positions. Those REIT funds that are well diversified and have low management fees will typically satisfy all of the criteria listed above. Private real estate fund fees often exceed those of REIT funds, reducing an investor's net return. In our view, REIT mutual funds offer investors the same exposures to underlying private real estate without the illiquidity, low transparency and potentially higher fees associated with real estate partnerships.

The Case for Quantitatively Constructed Global REIT Portfolios

Investors have many choices as to how they can achieve exposure to global REITs. As of February 28, 2015, there are 246 funds listed in Morningstar under the active Global Real Estate (REIT) fund category. The Standard and Poor's SPIVA year-end 2014 report shows that 41.7%, 91.2% and 91.6% of active real estate funds fail to beat benchmarks after 1, 3 and 5 years respectively.[6] The source of under-performance is often a combination of high manager fees, high turnover, and style drift.

Despite the poor track record of active REIT funds, academic research on REITs has found evidence that certain investment factors do have the ability to explain the difference in average returns. Chui, Titman and Wei (2003) find evidence of stock return momentum, or the tendency for winner stocks that have out-performed over the past 12 months to out-perform loser stocks. They find that the momentum effect is stronger after 1990, and among larger, more liquid REITs. Gentry, Jones and Mayer (2004) find that REITs with low Price/NAV ratios outperform REITs with high Price/NAV. They conclude that REIT values tend to revert to fundamental values as measured by the net asset value of the underlying real estate.

6 Please see http://www.spindices.com/documents/spiva/spiva-us-mid-year-2014.pdf for more information.

During the most recent financial crisis, Sun, Titman and Twite (2014) find that more-levered REITs under-performed less-levered REITs during the market downturn, but did not out-perform less-levered REITs in the years after the financial crisis. Due to the high payout rates, REITs are unable to retain earnings, which are an important source of capital during periods in which capital raising is difficult (e.g., the conditions of equity and debt markets during the latest financial crisis). For that reason, levered REITs that became financially distressed during the last market downturn had to raise capital, which caused large dilutions in NAV. Consistent with this idea, we find that lower-levered REITs had 3.13% higher 10-year cumulative rolling returns when compared to high-levered REITs over the period 2000-2014. Additionally, during the crisis period from January 2007 to March 2009, low-levered REITs declined by 49%, while high-levered REITs declined by 78%.[7]

Building Real-World Portfolios for Investors

In our view, the main goals of managing a portfolio involve considering the interaction between different investment factors that drive expected returns, while reducing unintended risks and costs. For REITs, the drivers of expected returns include momentum, size, value (measured by Price / NAV) and leverage. In our opinion, an investor can enhance a REIT portfolio's expected return by tilting the portfolio or giving greater-than-market weight toward those securities that have high past momentum, smaller market capitalizations, are more value-oriented (low Price/NAV) and have lower leverage, and less weight to those stocks that have undesirable stock-level characteristics. Designing portfolios in this way while minimizing trading costs and unintended risks can enable an investor to capture the return premiums associated with size, value, momentum, and leverage for REIT securities and potentially out-perform both peers and benchmarks. By going global, investors can benefit from an increased opportunity set associated with a greater number of REIT securities to include in their portfolios, as well as additional diversification benefits associated with international investing.

Conclusion

In this paper, we examine the benefits and limitations of investing in public real estate for an investor's portfolio. We find that REITs are an important asset class that provides additional diversification and potentially higher expected returns when combined with more-traditional asset classes such as fixed income and equities. Investing abroad through international REITs increases diversification and improves the investment opportunity set. Due to their high distributions, REIT securities are generally best held in a qualified, non-taxable investment account. Private REITs do not seem to provide an advantage over public REITs, lacking the transparency and liquidity of publicly traded securities. We suggest that an investor can enhance REIT portfolio returns by tilting his or her portfolio towards certain investment factors that have been identified by academic research to explain differences in average REIT returns.

7 Sources: Gerstein Fisher Research, MSCI Barra. Securities are divided into three groups each month based on market leverage ratios, with the bottom 30% representing low-leverage REITs and the top 30% representing high-leverage REITs. Portfolio returns are value-weighted. Data are potentially subject to survivorship bias associated with bankrupt companies no longer belonging to the database. This is likely to be a larger issue for higher-levered REITs.

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