GERSTEIN FISHER'S MULTI-FACTOR® APPROACH TO GLOBAL REAL ESTATE INVESTING

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Gerstein Fisher offers investors a distinct strategy for obtaining exposure to global real estate. The first globally diversified REIT strategy to use a quantitative, multi-factor®-based approach, it provides investors with intelligently constructed access to this fast-growing asset class.

Real estate investing today is more public, more global, more transparent, and more liquid than ever. Global real estate securities[1] – in particular real estate investment trusts (REITs) – have played a key role in this transformation. US REITs and similar structures in other countries have provided a broad range of investors with access to an asset class traditionally known for its illiquidity, opaque and infrequent pricing, and high minimum investment requirement.

A REIT is a company that owns (and often operates) income-producing real estate. Typically this includes commercial real estate properties that might range from office and apartment buildings to warehouses, shopping malls, and hotels. By purchasing shares of REITs, which, like equities, are traded on an exchange, individual investors can gain instant, diversified, liquid access to global property markets.

While still a relatively new construct in the investment world, REITs have seen significant and rapid growth since they were first created in the United States in 1960. The first European REIT legislation was passed in 1969 in the Netherlands, and today approximately 40 countries in North America, South America, Europe, Asia-Pacific, Africa and the Middle East have REIT legislation in place.

The Gerstein Fisher Multi-Factor® Global Real Estate Securities strategy provides investors with broad global diversification across REITs via a distinct quantitative, multi-factor® investment approach.

Factor-Based Investing and Multi-Factor Models

Factor-based investing involves identifying systematic sources of risk – called factors – that are primarily responsible for the variation in stock returns. The roots of Factor-based investing were laid with the Capital Asset Pricing Model (CAPM) in the early 1960s, which stated that a stock's performance hinged solely on its beta; i.e. its relationship to the market. Since then, multiple such factors have been uncovered that help better explain the risk and return of securities. Given that we know today that multiple factors contribute to the variation of stock returns, how can we build models to account for this complexity? Instead of using one factor, as in CAPM, multi-factor models (MFMs) incorporate multiple risk factors to explain the performance of a given stock or portfolio. The basic structure of an MFM is outlined below:

$$R_{asset} = R_{risk\text{-}free} + \beta_1 f_1 + \beta_2 f_2 + \ldots\ldots + \beta_n f_n$$

where,

R_{asset} = return on asset

$R_{risk\text{-}free}$ = return on risk-free asset

β_n = sensitivity of asset to factor *n*

f_n = return of factor '*n*'

[1] When referring to "global real estate securities" or "REITs" throughout this paper, we are referring to REITs and similar REIT-like securities found in the United States and international markets.

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MFMs find their roots in the Arbitrage Pricing Theory (APT)[2]. APT is an extension of CAPM in that it posits a linear relationship between a security's returns and that security's covariance with certain variables. However, instead of being restricted to one source of non-diversifiable risk, as is the case in CAPM, APT allows for multiple sources. The main argument of the theory is that excess returns can only be achieved by taking on extra risk; if this were not the case, then market participants would arbitrage those excess returns away. Additionally, through the process of diversification, idiosyncratic (company-specific) returns on individual assets essentially cancel out, resulting in the returns on large portfolios being influenced mainly by systematic factors. APT states that a portfolio's expected return is determined by its exposure to various systematic risk factors. It is this rationale that drives the construction of modern day MFMs.

Gerstein Fisher uses a proprietary MFM to implement the Multi-Factor® Global Real Estate Securities strategy. This model enables us to implement strategic tilts to risk factors that are based on time-tested academic research and investment principles that have historically compensated investors with higher returns while controlling exposures to undesired risk factors.

Strategy Overview

The Gerstein Fisher Multi-Factor® Global Real Estate Securities strategy seeks to provide diversified exposure to the global real estate market using a structured, quantitative approach. We believe that investors should be compensated, over the long run, with potential for greater return by taking on strategic exposures to risk. These additional exposures taken by Gerstein Fisher's strategy are rooted in sound economic rationale and empirical research.

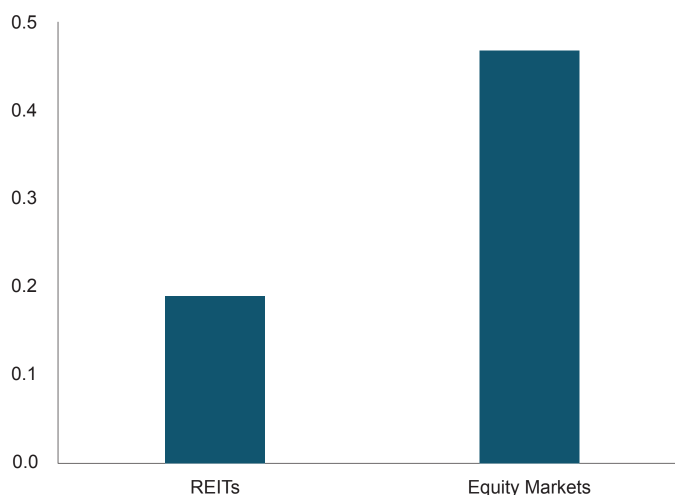
Examples of risk factor tilts targeted in Gerstein Fisher's Multi-Factor® Global Real Estate Securities strategy include a tilt to size (emphasis on smaller REITs), leverage (tilt towards less levered REITs), and value (tilt towards REITs with a relatively larger discount to the value of their underlying real estate portfolios). The strategy also incorporates momentum, which can be defined as the tendency of securities to demonstrate consistent price performance over a given period of time, typically 3-12 months, and the tendency of past winners to keep winning and losers to keep losing relative to their peers (recall Isaac Newton's first law of motion – "an object in motion will stay in motion...").

Momentum was first identified as a systematic source of risk by Narsimhan Jegadeesh and Sheridan Titman. Their research revealed that, historically, momentum investing had provided excess returns.[3] Additional research has shown the presence of memory in security prices, which may lend to the explanation of the persistence of momentum.[4]

Global Real Estate Securities in a Total Portfolio Context

Real estate can add diversification benefits to a portfolio due to its relatively low correlations with many traditional asset classes. In an increasingly global economy, real estate remains an inherently local business with distinct economic and property cycles, which speaks to the merit of adding international REITs as well as domestic real estate securities to a portfolio. Our research has shown that the correlation between equity market indices across a pair of countries is substantially higher than that between REIT indices across those same countries. Exhibit 1 shows the average pairwise correlation of REIT markets and broad equity markets for a group of 23 countries over a period of nearly two decades. By investing in REITs and other real estate securities, investors can own assets that are even more closely tied to different local economies around the globe than stocks, for a deeper level of portfolio diversification.

Exhibit 1: Correlation
Monthly Data Jan. 1, 1997 to Dec. 31, 2012



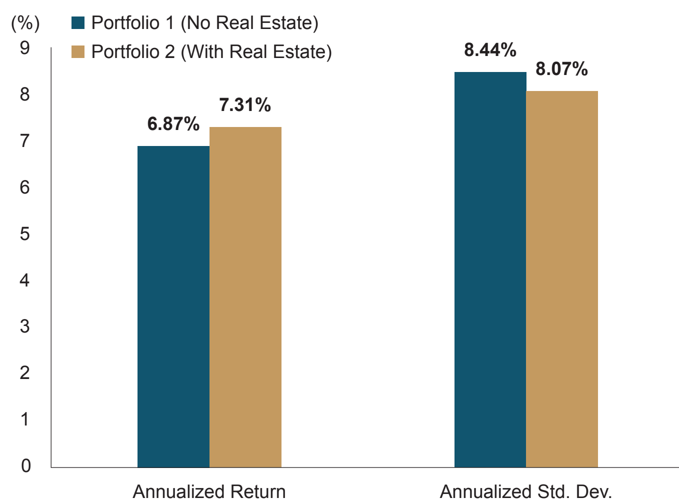
Source: Gerstein Fisher Research, MSCI, Bloomberg

[2] Roll & Ross (1976)
[3] Jegadeesh & Titman (1993)
[4] Fisher & Maymin (2011)

Exhibit 2 illustrates the diversification benefits of adding an allocation of real estate to a traditional stock/bond portfolio. Portfolio 1 consists of 50% equities and 50% bonds. Portfolio 2 consists of 35% equities, 50% bonds, and 15% real estate. As can be seen, the portfolio consisting of real estate has achieved higher returns while doing so with a lower level of risk (as measured by standard deviation).

Exhibit 2: Diversification Benefits of Real Estate

Monthly Data Jan. 1, 1990 to Dec. 31, 2012



Source: Gerstein Fisher Research, MSCI, Morningstar, Citigroup

As an asset class, global real estate appears to be poised for significant growth. Positive trends looking ahead over the next few decades include: growing global populations, an increasing trend to urbanization (by 2050 the United Nations expects the urbanization level of the world's population to reach nearly 70%, up from about 50% in 2011), and growing middle classes in many developing nations. Related to this, the spread of REIT-like structures around the world is opening up the market for investing in global commercial property even further. Currently, more than 40 countries have REIT legislation in place, and as the list continues to grow this asset class will become even more diversified and more accessible to investors.

Per US REIT legislation, REITs are required to distribute at least 90% of their taxable income to shareholders annually in the form of dividends. As such, REITs are an income-producing asset that may be best positioned within the tax-deferred portion of an investor's total portfolio – for example within a retirement account such as an IRA.

REITs vs. Private Real Estate Investing

As an investment vehicle, REITs and REIT-like securities offer broad diversification across property types and locations for low minimum investments. A global portfolio of real estate securities may represent a globally diverse portfolio of more than 20,000 commercial properties across many different property sectors. It would be virtually impossible for individual investors to achieve this level of diversification through direct private property ownership. Additionally, most investors do not have the ability to purchase the premium properties – the so-called "trophy assets" – that are often owned by the companies that issue real estate securities.

Private real estate investments are also notably illiquid. Traditionally this has been a major limitation of directly owning commercial real estate. If an investor wished to increase or decrease his exposure to commercial real estate, he would typically incur large transaction costs – especially if he needed to sell a property quickly. In contrast, real estate securities provide investors with significant flexibility to tactically adjust their real estate allocation without incurring substantial transaction costs.

Perhaps not surprisingly given their high level of liquidity, REITs exhibit higher levels of volatility than private real estate. As such, real estate securities are sometimes perceived as "riskier" than private real estate. Yet their higher volatility is a function of the frequency of valuation and the fact that REITs are priced daily while private real estate is appraised very infrequently. If volatility is a risk inherent in REITs, illiquidity is a risk inherent in private real estate, as just described.

Additional benefits of REIT and REIT-like structures include:

- **Potential for value creation, through astute management, over and above the value of the underlying commercial real estate:** Some public real estate companies possess experienced management teams that have created additional value for their shareholders by, among other things, pursuing attractive development opportunities, improving property-level operating efficiencies, effectively allocating capital and, at times, pursuing opportunistic transactions. Generally, the larger size of the public real estate companies allows them to achieve a scale with a more efficient cost structure, a larger network of local experts, access to a larger amount of pertinent information, and an ability to attract/retain top talent – all of which help the company adapt to changing market conditions.
- **Transparency, discipline, and corporate governance:** Publicly traded real estate companies are subject to the regulations, financial reporting, and information disclosure requirements of the public markets. Like other publicly traded companies,

they are often followed and scrutinized by investors, security analysts, and other investment professionals, who can facilitate a level of transparency, discipline, and corporate governance that exceeds what is typical among private direct real estate investment companies.

By applying a structured quantitative approach that has the overall asset class representation of an index fund and the flexibility to capitalize on specific themes like small-company or lower-levered company exposure, we believe the Gerstein Fisher Multi-Factor® Global Real Estate Securities strategy can offer a better way for investors to access the global real estate equity space by tilting toward factors that have historically proven to add value over time.

The key benefits to investors of the Gerstein Fisher Multi-Factor® Global Real Estate strategy can be summarized as follows:

- **The flexibility to harness excess return:** By combining REITs and REIT-like equities across the globe in one portfolio, as well as by incorporating size, leverage, and value themes, Gerstein Fisher has the flexibility to be opportunistic and proactive in seeking incremental returns.
- **The discipline to ensure asset class tracking:** Research has shown that portfolio structure – the mix of asset classes in a portfolio – is the predominant driver of the variation of long-term returns.[5] Yet asset allocation is only effective when investments behave like the asset classes they are designed to represent. By using a structured, factor-based approach to portfolio construction, we can build a portfolio that delivers reliable core exposure to global real estate equities for our clients.
- **Diversification to lower portfolio risk:** Investors also benefit from the diversification aspect of owning global and property sector-diverse baskets of real estate equities, as different local economies and property sectors of the global real estate market tend to behave differently at different times.
- **Transparency and liquidity:** With a highly transparent, rule-based process and a portfolio of liquid underlying investments, the Gerstein Fisher Multi-Factor® Global Real Estate Securities strategy should appeal to investors who want to understand what they own, the risk factors to which they are exposed (and not exposed) – and why.

[5] Brinson, Hood & Beebower (1986)

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A REIT's share price may decline because of adverse developments affecting the real estate industry, including changes in interest rates. The returns from REITs may trail returns from the overall market. Additionally, there is always a risk that a REIT will fail to qualify for favorable tax treatment.

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