MEKETA

Real Estate Investment Trusts ("REITs") Primer

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Real estate has long been considered an attractive asset class for investors due to its return profile, potential diversification benefits, and role as a long-term inflation hedge. However, directly investing in real estate may bring additional complexities and risks. Sourcing and closing an investment in a direct commercial real estate property requires considerable knowledge, skill, and capital. Further, real estate assets, along with the funds that many investors use to gain exposure to them, are not very liquid.

Real estate investment trusts ("REITs") are a type of investment vehicle that enables investors to gain exposure to commercial real estate via public markets. This primer defines what a REIT is, explains the different REIT property types, discusses the characteristics of the REIT market, and reviews REIT's historical risk and return profile. We focus on domestic listed public equity REITs, which are highly liquid financial instruments that provide exposure to different parts of the US real estate market.

What is a REIT?

A REIT is an investment vehicle that owns, operates, or finances assets related to income-producing real estate, such as land and buildings. Prior to the creation of REITs, investing in real estate was not a viable option for many investors, particularly those with small amounts of capital, due to practical concerns (e.g., illiquidity and regional and sector concentration). The creation of REITs eliminated many of the difficulties that had effectively prevented investors from allocating capital to real estate. Over 40 countries and regions have enacted REIT legislation, enabling global investment in this asset class.

There are two main types of REITs: mortgage REITs and equity REITs. Mortgage REITs earn interest income from the financing of income-producing real estate. Equity REITs, which account for the majority of REITs, earn income through property ownership and will be the focus of this primer.

Listed equity REITs are typically structured as public companies and trade on national stock exchanges. They own a portfolio of properties such as shopping malls, office buildings, apartment complexes, warehouses, and data centers. REITs collect rent from tenants and pay out the profits after expenses as a dividend to shareholders. To qualify as a REIT, the investment vehicle must distribute at least 90% of its taxable income to shareholders in the form of a dividend.[1] Retained income is taxed at the normal corporate rate. The intent of these provisions and regulations is to ensure that REITs are in the business of investing in income-producing real estate rather than operating like traditional companies.

[1] For further REITs requirements, see the Appendix.

REIT property types

REITs are typically categorized based on the property types in which they invest. Though some REITs invest across multiple property types, most REITs focus on holding one particular property type. REITs can fall into more than a dozen subsectors, the most common of which are listed in the Figure 1.

FIGURE 1
Types of REITs

Source: Nareit, "REIT Sectors," as of October 2023. Nareit stands for the National Association of Real Estate Investment Trusts. Nareit provides REIT data and indices.

Type of REIT	Description
Office REITs	Own and manage office buildings that are typically leased to businesses and government agencies.
Industrial REITs	Own and manage industrial facilities, such as warehouses, logistics, and manufacturing facilities.
Retail REITs	Own and manage real estate that is leased to retail-related tenants like shopping malls and grocers.
Lodging/Resort REITs	Own and manage hotels and resorts and can focus on different types of customers, such as business travelers or vacationers.
Residential REITs	Own and manage residential properties, such as apartment buildings and manufactured home communities.
Timberland REITs	Own and manage real estate involved in the harvesting and selling of timber.
Health Care REITs	Own and manage properties related to the health care industry, such as hospitals and medical office buildings.
Self-Storage REITs	Own and manage storage facilities for individuals and business customers.
Cell Tower REITs	Own and manage properties such as wireless communication towers.
Data Center REITs	Own and manage facilities that house data servers that store and protect customer data.
Gaming REITs	Own experiential real estate assets in the form of casino and entertainment properties.
Specialty REITs	Own properties that cannot be categorized based on the other REIT sectors, such as movie theatres, student housing, and outdoor advertising.
Diversified REITs	Hold a mix of properties across the REIT sectors.

While REITs are collectively subject to certain economic drivers, each category of REITs in Figure 2 below may behave differently depending on the economic environment and the specific elements of their respective balance sheets, governance, and management teams. In addition, the different subsectors within these broad categories will be subject to varying economic forces. The REITs universe therefore offers investors exposure to numerous drivers of return and risk.

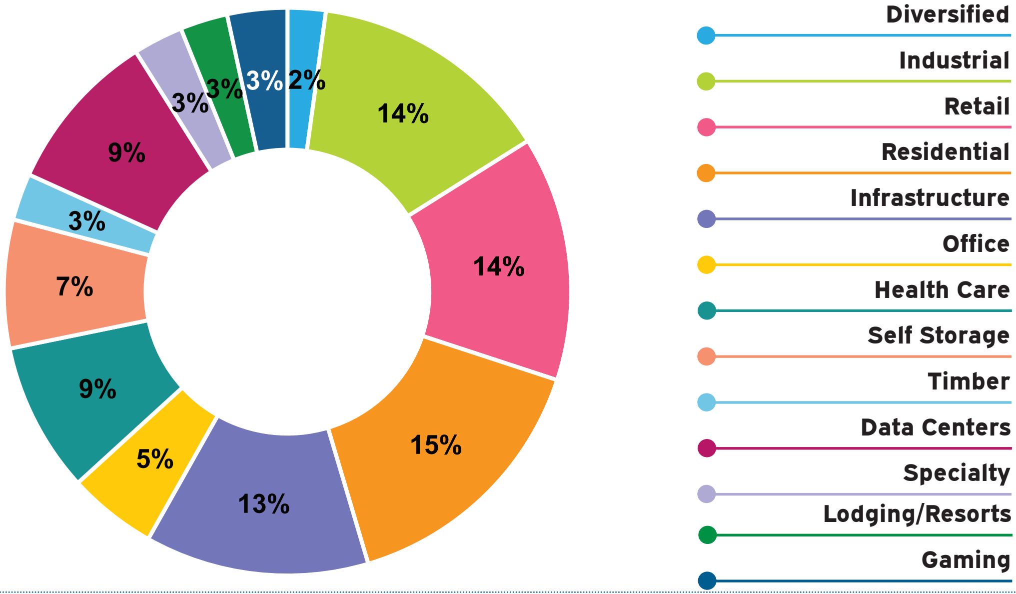

FIGURE 2
US Equity REIT Market Cap by Property Type

Source: Nareit, as of September 30, 2023. Indices: FTSE Nareit All Equity REITs.

The US REIT market

Since their creation in 1960, the number of REITs and the value of the assets they control have grown considerably. The FTSE Nareit All Equity REITs Index was incepted in December 1971 and tracks the universe of publicly listed US REITs. At the time the index was incepted, it tracked 12 US equity REITs with a total market capitalization of $332 million. As of year-end 2022, the number of REITs had grown to 162 and the aggregate market capitalization increased to $1.2 trillion, as shown in Figure 3.

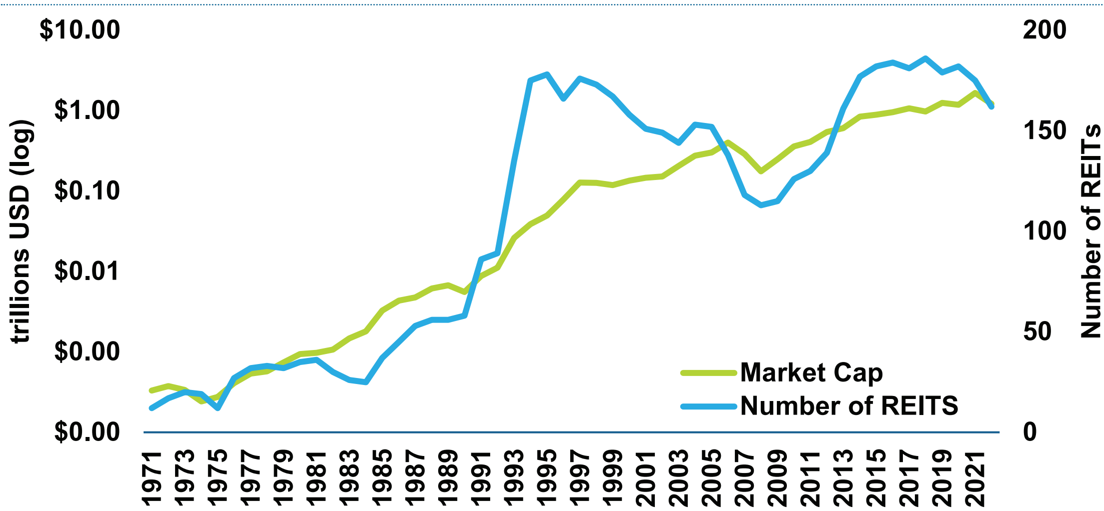

FIGURE 3
US Equity REITs by Count and Market Cap

Source: Nareit, as of October 2023. Indices: FTSE Nareit All Equity REITs.

The impressive growth of the domestic equity REIT universe in Figure 3 accompanies a growing investor awareness and acceptance of REITs as investment vehicles. Prior to the creation of REITs, investing in real estate required a large capital base, specialized expertise, a long investment horizon, and a high tolerance for concentration and liquidity risk. REITs allow investors to bypass many of these hurdles to participate in the benefits of investing in real estate.

REITs are a meaningful portion of major market indices. As of September 30, 2023, equity REITs comprised 2.21% of the S&P 500 index and 2.63% of the Russell 3000 index.[2] REITs have also become an important part of the US economy. According to figures from the National Association of Real Estate Investment Trusts ("Nareit"), US REITs own approximately 575,000 properties across the country as of Q2 2023. Nareit also estimates that US REITs (listed and non-listed) own nearly $4 trillion in gross assets, $2.5 trillion of which is attributable to public REITs.[3] In addition, REITs (listed and non-listed) distributed an estimated $69.2 billion worth of dividend income in 2022.[4]

[2] Source: Factset, as of October 2023.

[3] Source: Nareit, "REITs by the Numbers," as of October 2023. Figure includes both equity and mortgage REITs.

[4] Source: Nareit, "Market Data," as of October 2023. Figure includes both equity and mortgage REITs.

As the market for REITs and their contribution to the economy grew, REITs became an increasingly common holding in exchange traded funds ("ETFs") and mutual funds. The first REIT ETF was launched in 2000 and there are now 30 ETFs exclusively focused on REITs.[5] In addition, there are over one hundred REIT investment strategies, including both global and US REITs.[6] The combination of individual REITs in these investment vehicles allows investors to diversify their REIT exposure easily and inexpensively.

[5] Source: Nareit, "List of REIT Funds," as of October 2023.

[6] As of November 2023, there were 74 US REIT strategies and 100 global REIT strategies in the eVestment Alliance database.

Advantages and disadvantages of REITs

Advantages

There are several advantages to gaining exposure to real estate through REITs rather than direct real estate investments. Public equity REITs have the potential to offer investors an attractive vehicle in which to invest in real estate.

- **Dividend yield:** Given the requirement that REITs must distribute 90% of their taxable income as a dividend, REITs often have attractive dividend yields, which can provide a relatively stable source of income for investors.[7]
- **Liquidity and low transaction costs:** Public REITs are registered with the SEC and trade on national stock exchanges. These characteristics offer liquidity to REIT investors in an otherwise illiquid asset class along with low transaction costs.
- **Divisibility:** The divisibility of public equity REITs into shares enables investors to participate in the real estate market without requiring large amounts of capital.
- **Governance:** SEC requirements dictate that listed REITs file disclosures regularly to keep investors informed of the important elements of their business. The presence of outside directors adds a layer of fiduciary accountability and shareholder representation.
- **Easy diversification:** REITs allow an investor to easily build a portfolio diversified across property types, sectors, and geographic regions.

[7] See the Appendix for more information on REITs' dividend yield.

In addition to these advantages, there are also other reasons that institutional investors may include REITs in a broader real estate program. One reason is the access to high quality management teams available through REITs, which may not be available to some investors through private programs. Similarly, REITs may provide investors access to ex-US real estate if their private programs do not permit it or if their current programs do not have adequate resources to do so. Another reason that institutional investors may find REITs an attractive addition to their real estate program is that REITs can offer access to property types and demand drivers that the investor may not be accessing elsewhere, such as regional malls and cell towers.

Disadvantages

There are also disadvantages to gaining real estate exposure through REITs rather than direct real estate investments.

- **Limited capital deployment opportunities:** Because of the requirement that 90% of earnings must be distributed as a dividend, REITs do not benefit from the same capital deployment opportunities as many direct real estate investments. As a result, if a REIT wants to grow, it must have continual access to the capital markets or grow through mergers and acquisitions. Lack of market access during difficult market economic periods can be a problem for growth-oriented REITs. Increased scale often offers opportunities for improved margins.
- **Higher volatility and correlations:** Because REITs are publicly traded on stock exchanges, they typically have higher correlations to stocks and exhibit much greater observed volatility than direct real estate investments, though valuations often converge with those of private real estate during periods longer than three years. Thus, in the short term, REIT performance may more closely align with that of equity markets.
- **Deviations from net asset value ("NAV"):** REITs can trade at a discount or premium to their NAV, which can introduce deviations between the value of the REIT shares and the purported value of the underlying real estate properties.
- **More leverage:** REITs often use a considerable amount of leverage, with the average loan-to-value ranging between 30% and 50%. In contrast, most core open-end private real estate funds, those found in the National Council of Real Estate Investment Fiduciaries ("NCRIEF") Open End Diversified Core Equity Fund Index ("NFI-ODCE"), use leverage between 20% and 35%. However, leverage for value-add and opportunistic funds can be much higher.

Characteristic	REITs	Private Real Estate Investment
Liquidity	High	Low
Concentration	Varies	Varies
Transaction Costs	Low[8]	High
Transparency	High	Varies
Observed Volatility[9]	High	Low
Correlation to Equity Markets	High	Low

FIGURE 4
Comparison of REITs and Private Real Estate Investments

Source: Meketa Investment Group, 2023.

[8] The low cost is related only to the listed shares. REITs have the same transaction costs as private investments when it comes to buying and selling the underlying assets.

[9] See the Volatility section for an explanation behind private real estate's lower observed volatility.

Historical performance

Figure 5 shows the rolling three-year returns for the FTSE Nareit All Equity REITs Index, which is a capitalization-weighted index of publicly listed US REITs, the Russell 3000 Index, which is a proxy for the broad US stock market, and the NFI-ODCE, which is a proxy for the US private real estate market.

It is important to note that the NFI-ODCE index is priced quarterly, and the underlying funds use an appraisal-based pricing methodology. This may result in both artificial smoothing of returns as well as a temporal lag with respect to actual returns. The other indices are priced daily, but we converted their returns to quarterly for comparison purposes.

US REITs' returns have historically been in line with US equities and US private real estate. Despite REITs' underlying assets being more similar to private real estate, US REITs' returns have behaved more like US equities. This is due to the fact that valuations for properties in the NFI-ODCE are done infrequently as well as the fact that REITs are publicly listed and traded like stocks.

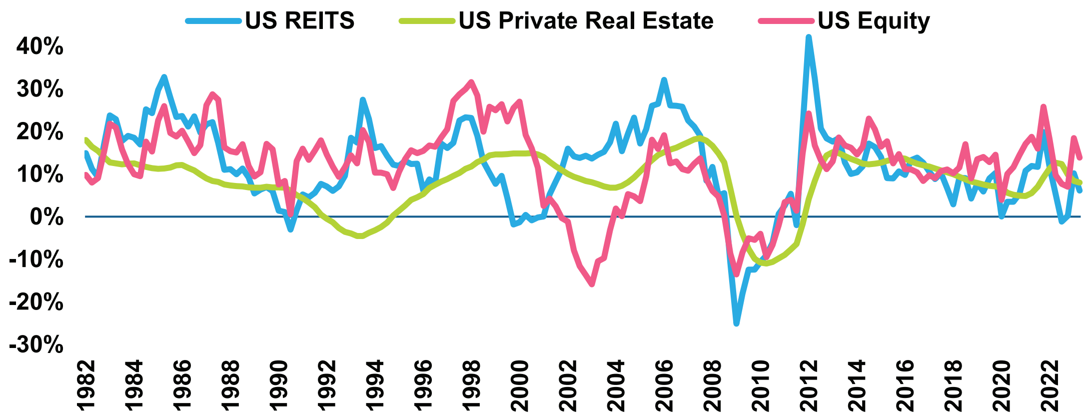

FIGURE 5

Rolling 3-Year Returns

Source: Bloomberg and NCREIF, as of October 2023. Indices: FTSE NAREIT All Equity REITS TR Index, NFI-ODCE Value Weighted Index, Russell 3000 TR. Nareit and Russell 3000 data was converted from monthly to quarterly for consistency with NFI-ODCE data.

Importantly, an investor's opinion on the historical performance of REITs is likely to depend on the period used for measuring it (see Figure 6). For example, over the most recent five- and ten-year periods, US REITs underperformed both private real estate and US equities. However, when looking further back, US REITs achieved competitive long-term returns. US REITs outperformed private real estate in each of the 20-, 25-, 30- and 40-year time periods. While US REITs only outperformed US equities in the 25-year period, their returns were relatively close for each of the other long-term periods.

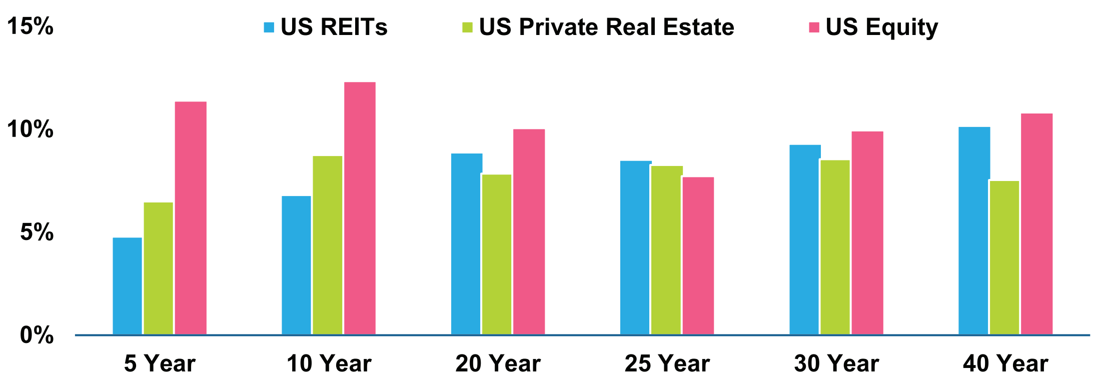

FIGURE 6

Short- and Long-Term Returns

Source: Bloomberg and NCREIF, as of October 2023. Indices: FTSE Nareit All Equity REITS TR Index, NFI-ODCE Value Weighted Index, Russell 3000 TR. Nareit and Russell 3000 data was converted from monthly to quarterly for consistency with NCREIF data.

Volatility

While REITs have generated returns in line with US equities and above private real estate over longer time periods, they have also had higher volatility. US REITs' annualized volatility over the past 20 years has been 21.8%, compared to US equities' 16.5%. Moreover, REITs also had the highest maximum drawdown, at -65.4%, which occurred during the Global Financial Crisis ("GFC"). These higher returns and volatility may be partially due to REITs' higher average leverage than core private real estate.

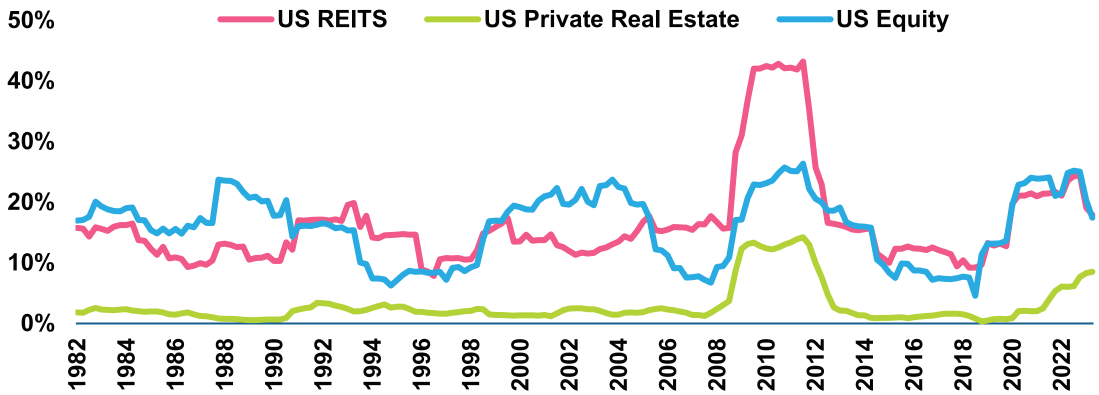

FIGURE 7
Rolling 3 Year Volatility

Source: Bloomberg and NCREIF, as of October 2023. Indices: FTSE Nareit All Equity REITS TR Index, NFI-ODCE Value Weighted Index, Russell 3000 TR. Nareit and Russell 3000 data was converted from monthly to quarterly for consistency with NCREIF data.

As previously mentioned, private real estate uses an appraisal-based pricing methodology and is priced quarterly which can meaningfully understate volatility. REITs and equities, being publicly listed, are priced daily. This results in private real estate having artificially depressed observed volatility compared to both REITs and US equity.

Correlations

Historically, US REITs have provided modest diversification benefits, though it has varied considerably over time. Since 1979, US REITs have exhibited an average correlation of 0.23 to US bonds and 0.67 to US equities. While REITs may act as a diversifier to high quality bonds, they generally do not provide the same benefits relative to equities. This is to be expected as REITs are traded the same as and often behave like equities, and therefore have a higher correlation to equities. Moreover, the correlation with equities tends to spike during periods of market stress (see Figure 8).

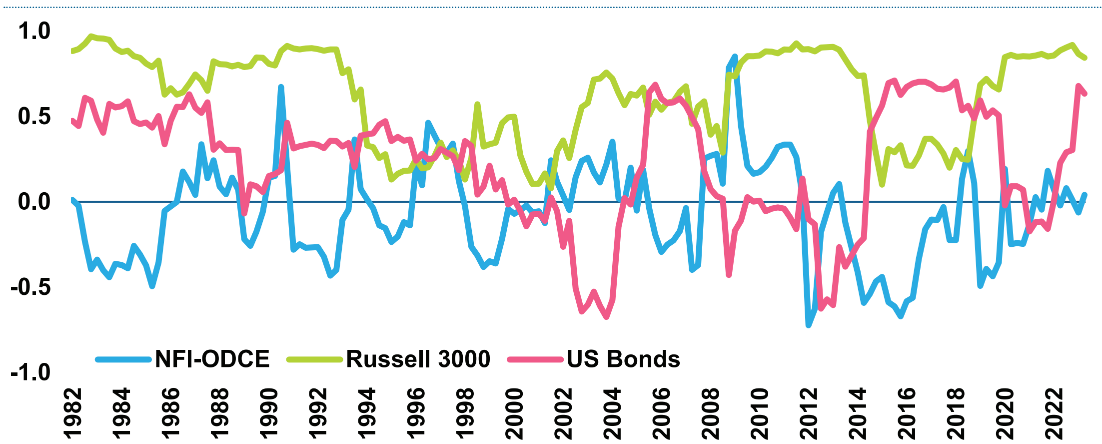

FIGURE 8
Rolling 3-Year Correlation to REITs

Source: Bloomberg and NCREIF, as of October 2023. Indices: FTSE Nareit All Equity REITS TR Index, NFI-ODCE Value Weighted Index, Russell 3000 TR. Nareit and Russell 3000 data was converted from monthly to quarterly for consistency with NCREIF data.

As of October 2023, the correlation between the REITs and core private real estate has been low, averaging just 0.12 since 1979, implying the two are uncorrelated. However, as noted earlier, there are major construction and methodology differences between the indices. For example, the NFI-ODCE is based on quarterly appraisals, and is therefore subject to the effects of smoothing and price lag. In contrast, the FTSE Nareit All Equity REIT index is priced continuously throughout each trading day. Therefore, while perceived correlation between the two is low, true underlying correlation is likely higher.

Active versus passive REITs

Over the past ten years, the average annualized outperformance of the median active US REIT manager (before fees) was 36 basis points.[10] When the median "rack rate" fee of 65 basis points is considered, this presents a challenge for active management.[11] However, depending on the situation and size of the mandate, an investor may be able to negotiate a lower fee.[12]

Analyzing a single snapshot in time may overlook the cyclicality of excess manager returns. Figure 9 shows the 25th, median, and 75th quartile manager outperformance over time of the active REITs asset class before fees. One interesting observation is that excess returns are quite cyclical, and they do not appear to follow a consistent pattern during market down- or up-turns. This could mean that REITs managers' outperformance is less influenced by traditional equity market movements and more influenced by other factors, such as interest rates, due to their higher leverage.

[10] Source: Morningstar. Outperformance represents geometric mean of manager returns over one year minus the benchmark return for the period where data is available. Inception date starts when there are at least 10 funds to evaluate and goes through September 2023. For more information on why the Morningstar Universe was chosen and alpha calculations, see Meketa's Manager Alpha Whitepaper.

[11] Source: eVestment Alliance. Median sliding fee for all product types as of September 30, 2023. Backdated fee information is unavailable.

[12] Traditionally, active management fees are often much higher than passive management fees, so an active manager would have to outperform the benchmark by its higher fee for the investor to break even.

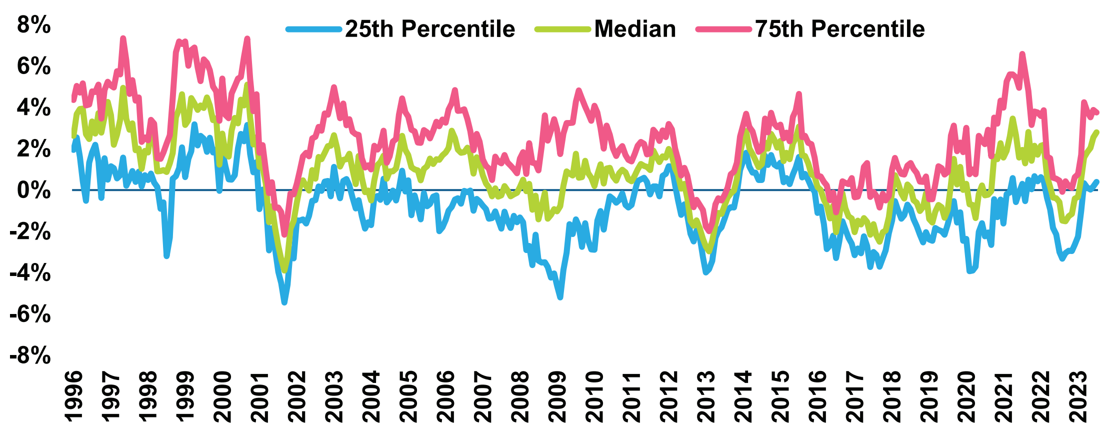

FIGURE 9
Rolling Median Outperformance

Source: Morningstar. Data as of September 30, 2023. Gross of fees. Due to the small number of funds at inception, some of the asset class's early year relative returns may be skewed.

Interquartile spreads can be interpreted as how much potential value lies in selecting superior active managers within each asset class. REITs (3.0%) had a higher interquartile spread than the NFI-ODCE (1.0%) but a lower interquartile spread than US small (5.7%) and large cap (4.4%) equities. This implies that, like core real estate, REITs are a fairly efficient asset class.[13] An additional explanation for REITs' smaller interquartile spread relative to equities may be the historical sector concentration of assets. Equity has a wider variety of possible underlying assets in a multitude of sectors, whereas REITs' assets typically have a fairly concentrated opportunity set in smaller pool of sectors.

[13] Note that REITs had a smaller average number of funds (49) compared to US small cap (127) and large cap (310) over the last 10 years.

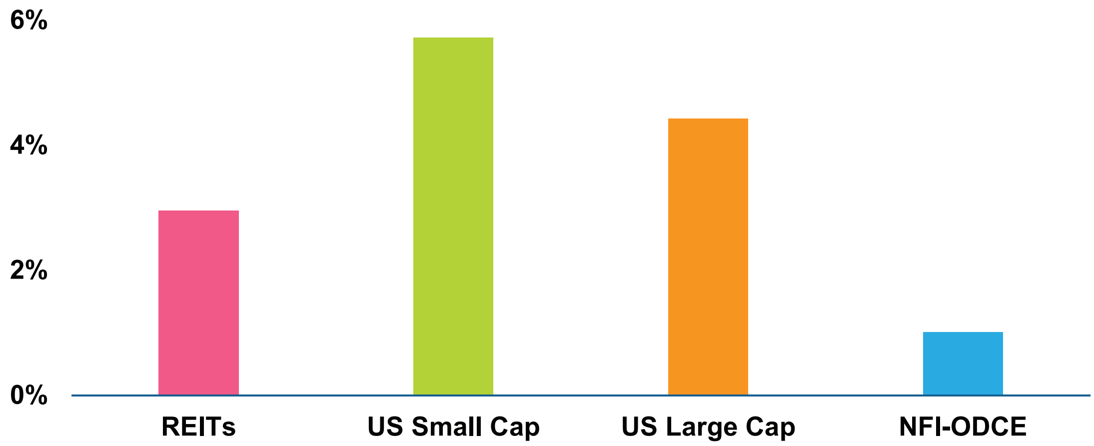

FIGURE 10
Trailing 10-Year Interquartile Spread

Source: Morningstar and NFI-ODCE 2Q 2023 Report. Gross of fees. NFI-ODCE data is for the trailing 10 years as of June 30, 2023. Morningstar data is for the trailing 10 years as of September 30, 2023. Morningstar's interquartile spreads are evaluated by taking the difference between the geometric average of the 75th percentile return and the 25th percentile over a rolling 12-month period.

Summary

REITs offer investors a means to gain exposure to commercial real estate via public markets. They have historically generated long-term returns in line with US equities and above US private real estate. However, this has come with higher risk, as REITs have exhibited higher volatility levels than both private real estate and equities. Their behavior is similar to that of public market equities, largely because they are liquid and traded daily, despite sharing the same type of underlying assets as private real estate. REITs have exhibited a high correlation with equities and almost no correlation with private real estate. The relatively stable dividend of REITs may also be attractive to investors. Finally, the REITs asset class does not appear to present as broad an opportunity for active managers to add value as do many other equity-like asset classes.

REITs may be an attractive option for investors who want to allocate to real estate but cannot sacrifice liquidity, as well as investors with a diversified private market real estate portfolio who want to include a liquid allocation within that portfolio and can tolerate the increased volatility. As always, investors should conduct careful due diligence to make sure that investments match their objectives and constraints.

Appendix

Requirements for REITS

According to the Securities and Exchange Commission, REITs are required to:[14]

- → Distribute at least 90% of its taxable income to shareholders in the form of a dividend.
- → Be an entity that would otherwise be taxable as a corporation but for its REIT status.
- → Be managed by a board of directors or trustees.
- → Have shares that are fully transferable.
- → Have a minimum of 100 shareholders after its first year as a REIT.
- → Have no more than 50% of its shares held by five or fewer individuals during the last half of the taxable year.
- → Invest at least 75% of its total assets in real estate assets and cash.
- → Derive at least 75% of its gross income from real estate related sources.
- → Derive at least 95% of its gross income from such real estate sources and dividends or interest from any source.
- → Have no more than 25% of its assets consist of non-qualifying securities or stock in taxable REIT subsidiaries.

[14] Source: SEC, Investor Bulletin: REITs.

Changes to REIT legislation since 1960

The intent of the original REIT legislation was to enable all investors to participate in passive real estate ownership. Many of the restrictions placed on REITs were designed to ensure that REITs earn the vast majority of their income from passive sources like rent, and not from active sources, such as operations and services. However, several pieces of legislation have been passed since 1960 that allow REITs to earn a greater share of their income from active sources. For example, in 1986, the Tax Reform Act allowed REITs to earn income from providing certain services to its tenants through taxable REIT subsidiaries ("TRS").[15] In 2007, Congress passed the REIT Investment Diversification and Empowerment Act ("RIDEA"), which further relaxed some of the restrictions placed on REITs.[16] For example, the REIT ownership limit of TRS increased from 20% to 25% of total assets with the passage of the RIDEA legislation.

[15] Source: Einhorn, David M. "Unintended Advantage: Equity REITs Vs. Taxable Real Estate Companies." The Tax Lawyer, vol. 51, no. 2, pp. 203–228, 1998.

[16] Source: Monroe, Patrick. "REITs Amidst the Current Real Estate Crisis: An Analysis Of The REITs Investment Diversification And Empowerment Act." Journal of Business & Securities Law, vol. 9 no. 2, 2009, pp. 239–260.

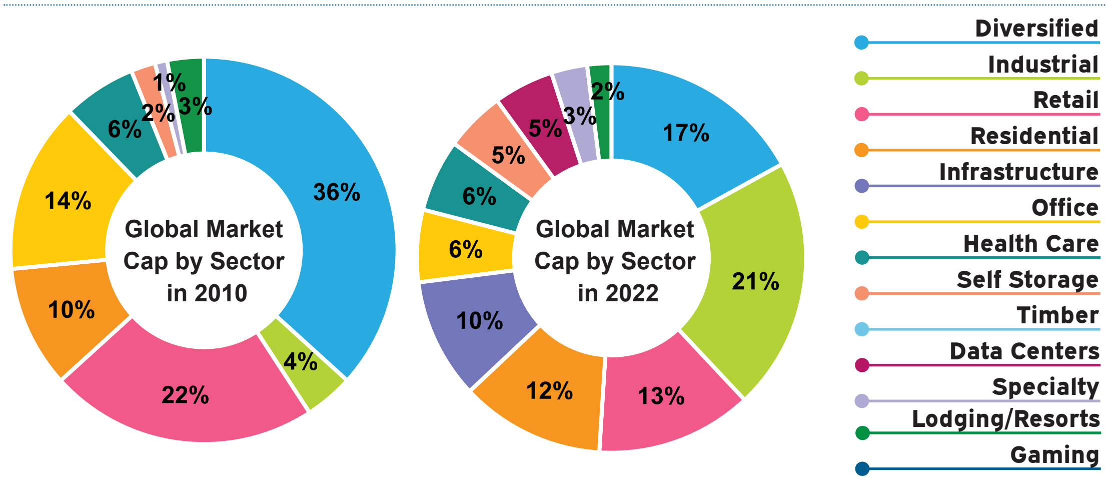

FIGURE 11
Changes in Global REITs Sectors Over Time

Source: Nareit, "Global REITs Brochure 2023." Index: FTSE EPRA/Nareit Global Extended Index.

Dividends

Due to the requirement that REITs must earn the vast majority of their income through rental income and distribute profits as a dividend, REITs can provide a relatively stable income stream to investors. REITs have historically had higher dividend yields than both the S&P 500 and the 10-Year US Treasury yield. Over the last ten years, REITs have had an average monthly dividend of 3.7%, higher than the S&P 500's 1.8% dividend yield and the 10-Year Treasury's 2.3% yield.[17] However, while REITs' dividends are still above those of the S&P 500, there has been a trend of convergence between the two since the early 2000s. In other words, for the past decade, REITs have not offered as siginificant of a dividend premium over public equities as they once did.

[17] Sources: Monthly yields sourced from Nareit, NASDAQ, and FRED as of October 2023. Indices: FTSE Nareit US All Equity REITs, S&P 500, Market Yield on US Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis, Percent, Monthly, Not Seasonally Adjusted. For the period 10/1/2013 – 9/1/2023

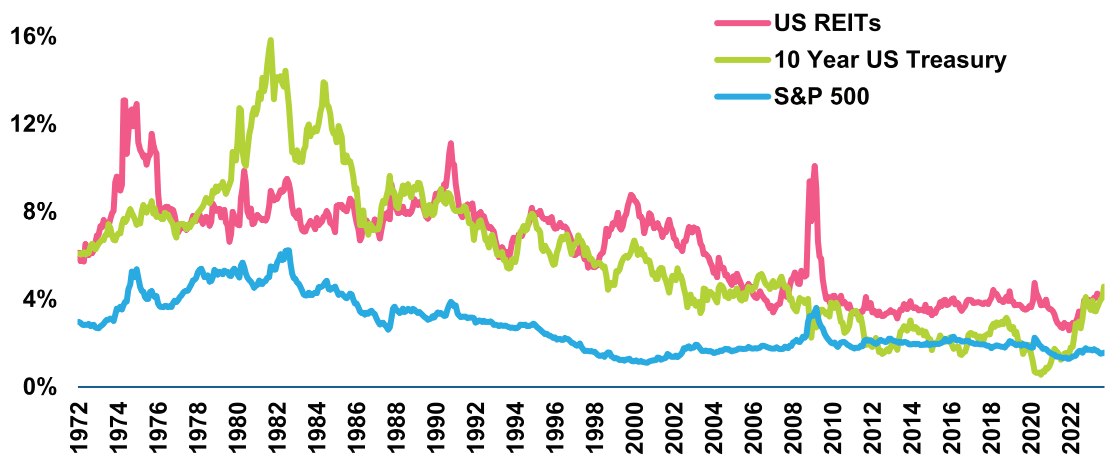

FIGURE 12

Yield Comparison

Source: Monthly yields sourced from Nareit, NASDAQ, and FRED as of October 2023. Indices: FTSE Nareit US All Equity REITs, S&P 500, Market Yield on US Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis, Percent, Monthly, Not Seasonally Adjusted.

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