Product Profile | Real Estate

The enduring appeal of real estate

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Nareit

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Introduction

For decades, investors have viewed real estate (property) as a way of enhancing yield, diversifying their portfolios and protecting against unforeseen price rises.

After a volatile 2022, and amidst renewed uncertainty over the economic cycle and the future path of inflation and interest rates, real estate is once again in demand.

In this FTSE Russell paper, we profile the **FTSE EPRA Nareit Global Real Estate Index Series**, which is designed to represent general trends in eligible listed real estate stocks worldwide. The stocks included in the index series are those involved in the ownership, trading and development of income-producing real estate. They span the entire commercial real estate sector of the global economy, including listed real estate stocks and real estate investment trusts (REITs)[1] from all relevant investment and property sectors.

[1] Real Estate Investment Trusts (REITs) are companies that own, operate or finance income-generating real estate. REITs are required to pay out nearly all their taxable income to shareholders.

The index series provides investors with a comprehensive and complementary set of real estate benchmarks, including:

– Regional and country indices
– Property sector indices
– Dividend plus indices
– Rental and non-rental indices
– REIT and non-REIT indices
– Super liquid indices
– Capped indices
– Green indices
– Islamic indices

The index series is designed to reflect the performance of companies engaged in specific aspects of the major real estate markets and regions of the world: the Americas, EMEA (Europe, Middle East and Africa) and Asia.

Below we provide an overview of the listed real estate market and summarise its investment characteristics. We note the key construction steps of FTSE Russell's real estate indices and highlight their principal design features. We then provide an overview of our index offering within this increasingly important asset class.

How large is the listed real-estate market?

Real estate has been a mainstay of institutional investment portfolios for many years due to its attractive investment characteristics - its relatively high income and promised total return, its diversification benefits within a broader portfolio and its ability to provide a hedge against inflation. For example, following the inflationary period of the 1970s and early 1980s, UK pension funds had an average allocation to real estate of 15%–20%, largely in the form of direct property holdings.[2]

In the last two decades the listed real estate market, a category that includes REITs and other real estate securities, has grown substantially in size around the world.

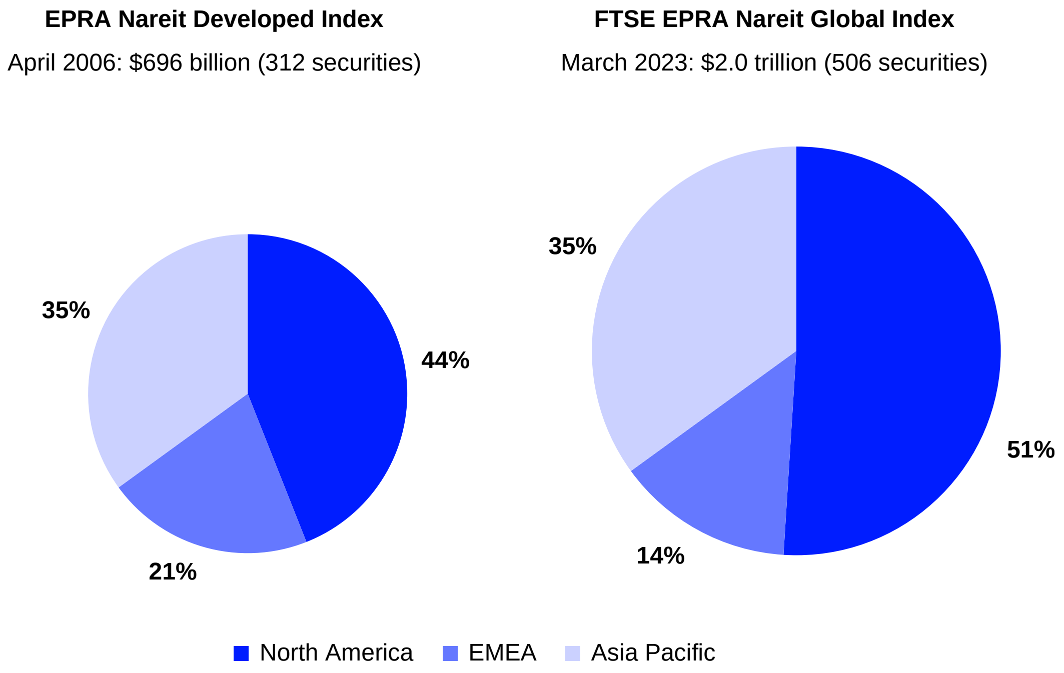
Global listed real estate has grown from a market capitalisation of $696bn in 2006 (**FTSE EPRA Nareit Developed Real Estate Index)** to $2.0trn in 2023, representing 22 developed economies and 506 companies (**FTSE EPRA Nareit Global Index**).

One key contributor to this sixfold increase in the market's size has been the increasing adoption worldwide of the REIT structure. In 2021, more than 40 countries had REIT-like securities, and more are at various stages of implementing REIT legislation.[3]

[2] Cluttons IM, "Property and pension funds", 2019.
[3] Nareit, as of 31 December 2021.

Figure 1: Growth of the listed real estate market

Region	Annual growth rate April 2006–March 2023 [a]
North America	7.72%
EMEA	7.31%
Asia Pacific	7.29%



Source: FTSE Russell. (a) Shows compound annual growth rates of market capitalisation by region for the past 17 years. Growth rate for REITs, 3 April 2006–8 March 2023.

Diversity within global real estate

The REIT market contains a number of sectors, each with its distinct investment characteristics. According to the classifications set out by the US National Association of REITs (Nareit) and the **FTSE Nareit US Real Estate Index Series**[4], these sectors include:

Office REITs

Office REITs own and manage office real estate and rent space in those properties to tenants. Those properties can range from skyscrapers to office parks. Some office REITs focus on specific types of markets, such as central business districts or suburban areas. Some emphasise specific classes of tenants, such as government agencies or biotech firms.

[4] FTSE_Nareit_US_Real_Estate_Index_Series.pdf (ftserussell.com) and https://www.reit.com/what-reit/reit-sectors

Industrial REITs

Industrial REITs own and manage industrial facilities and rent space in those properties to tenants. Some industrial REITs focus on specific types of properties, such as warehouses and distribution centres. Industrial REITs play an important part in e-commerce and are helping to meet rapid delivery demand.

Retail REITs

Retail REITs own and manage retail real estate (stores, malls, etc.) and rent space in those properties to businesses. Retail REITs include REITs that focus on large regional malls, outlet centres, grocery-anchored shopping centres and power centres that feature big box retailers.

Lodgings/Resorts REITs

Lodging REITs own and manage hotels and resorts and rent space in those properties to guests. Lodging REITs own different classes of hotels based on features such as the hotels' level of service and amenities. Lodging REIT properties service a wide spectrum of customers, from business travellers to vacationers.

Residential REITs

Residential REITs own and manage various forms of residences and rent space in those properties to tenants. These include REITs that specialise in apartment buildings, student housing, manufactured homes and single-family homes. Within those market segments, some residential REITs also focus on specific geographical markets or classes of properties.

Timber REITs

Timber REITs own and manage various types of timberland real estate. Timber REITs specialise in harvesting and selling timber.

Health Care REITs

Health Care REITs own and manage a variety of healthcare-related real estate and collect rent from tenants. Health Care REITs' property types include senior living facilities, hospitals, medical office buildings and skilled nursing facilities.

Self Storage REITs

Self Storage REITs own and manage storage facilities and collect rent from customers. Self Storage REITs rent space to both individuals and businesses.

Infrastructure REITs

Infrastructure REITs own and manage infrastructure real estate and collect rent from tenants. Infrastructure REITs' property types include fibre cables, wireless infrastructure, telecommunications towers and energy pipelines.

Data Centres REITs

Data Centres REITs own and manage facilities that customers use to safely store data. Data Centres REITs offer a range of products and services to help keep servers and data safe, including providing uninterruptable power supplies, air-cooled chillers and physical security.

Diversified REITs

Diversified REITs own and manage a mix of property types and collect rent from tenants. For example, diversified REITs might own portfolios made up of both office and industrial properties, making them ideal for investors looking to gain exposure to a variety of real estate asset types.

Specialty REITs

Specialty REITs own and manage a unique mix of property types and collect rent from tenants. Specialty REITs own properties that don't fit within the other REIT sectors. Examples of properties owned by specialty REITs include movie theatres, casinos, farmland and outdoor advertising sites.

Gaming REITs

Gaming REITs focus on acquiring real property assets and leasing them to gaming operators, typically through long-term, triple net lease structures.

Global coverage

In the **FTSE EPRA Nareit Global Real Estate Index Series**, companies are classified into eleven core property sectors: Health Care, Self Storage, Industrial, Office, Industrial/Office Mixed, Residential, Retail, Lodging/Resorts, Data Centres, Specialty and Diversified.

Additionally, property sectors were extended beyond core real estate property sectors within the **FTSE EPRA Nareit Global Extended Index Series**, to represent "Opportunities Subsectors" such as Social Housing, Senior Care, and Life Science.[5]

[5] FTSE_EPRA_Nareit_Global_Real_Estate_Extended_Index_Ground_Rules.pdf (ftserussell.com) and FTSE Russell launches Developed Extended Opportunities Real Estate index in collaboration with National Pension Service of Korea | FTSE Russell

What are the investment benefits of listed real estate?

Listed real estate stocks offer investors the opportunity to access the commercial real estate market and gain a variety of benefits:

Figure 2: Investment benefits of listed real estate

Diversification	Total returns	Inflation management
Low correlation of returns with those of other equities and fixed-income investments.	Listed real estate provides the potential of competitive long-term rates of return to complement return from other stocks and from bonds.	In many economies, a strong link exists between rents and the annual change in consumer price inflation.
Liquidity	**Transparency**	**High dividend yield**
Shares of listed real estate are readily converted into cash because they are traded on the major stock exchanges.	Listed real estate operates under legislation, accounting laws, stock exchange rules and reporting requirements, and governance guidance.	Listed real estate on average provides a high dividend yield, largely supported by the REIT requirement to distribute 90% of its taxable income.

In addition to these many benefits, watchers of the listed real estate market will also see secular trends develop over time, for example in the emergence and growth in cell towers, data centres, e-commerce distribution centres, the infrastructure for home working and healthcare services and specialist housing for ageing populations.

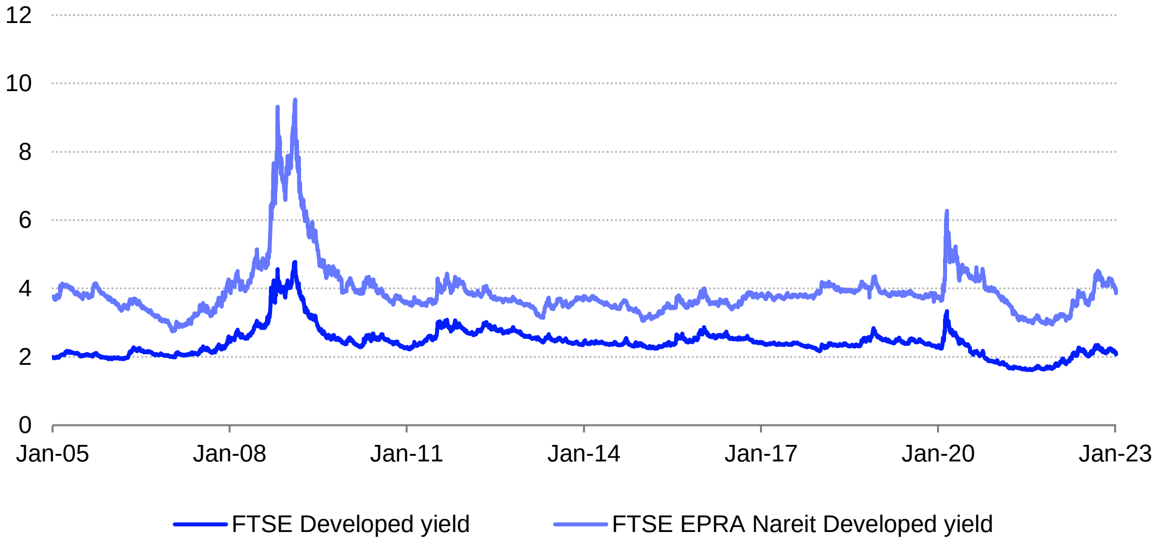
Yield profile

As REITs are required to pay out nearly all their taxable income to shareholders, they are often seen as an important source of portfolio yield, particularly by comparison with equities.

In figure 3, we show that global listed real estate (in the form of the **FTSE EPRA Nareit Developed index**) has provided a consistently higher yield than global equities (represented by the FTSE Developed Index) from January 2005 to January 2023.

This yield premium from real estate securities means that the sector is viewed by many investors as combining some of the traits of equities and fixed income.

Figure 3: Yield premium from listed real estate



Source: FTSE Russell, 27/1/2005 – 3/2/2023. Past performance is not a reliable guide to future returns.

Historically, many large institutional investors have invested directly in real estate. The benefits of direct real estate investment (also called ‘unlisted’ or ‘private’ investment) include the ability to control the acquisition and management process for each property. Investors are then entitled to all the income, capital gains and potential tax benefits the property produces (such as the ability to offset depreciation against taxable income).

The downsides of direct/unlisted property investment are the difficulty in obtaining a diversified portfolio, high transaction costs and the relative illiquidity of property assets. Direct property investments also incur ongoing management costs, including the responsibility of dealing with tenant issues, maintenance emergencies and the potential legal liability for accidents occurring on the property.

By contrast, listed real estate holdings (through stocks and REITs) are liquid, comparatively transparent and have relatively low transaction costs for securities when compared with the costs associated with the underlying real estate assets.

The performance profile of listed and unlisted property

In theory, the nature of the vehicle used to gain real estate exposure should not influence the valuation of the underlying assets, nor should it influence the performance of the two types of property holdings (unlisted and listed). In practice, however, there may be notable differences in the reported performance of a portfolio of unlisted property and a portfolio of listed property securities.

As prices in unlisted real estate are updated less frequently (valuations based primarily on appraisals tend to change more slowly), in theory this can contribute to a performance lag in unlisted real estate by comparison with listed property securities.

However, this has not always been confirmed empirically. In his 2022 book *Investing Amid Low Expected Returns*[6], Antti Ilmanen observed that, in the US market, liquid REITs outperformed private property assets by around three percent a year between 1978–2020 (giving around a seven percent, versus a four percent compound annual return, in excess of the return on cash).

This, Ilmanen said, is the opposite of what one would expect if private investments in real estate carried an illiquidity premium. In fact, evidence from multiple research reports shows no evidence of such a return premium from private investments and, even after adjusting for the higher leverage carried by REITs, the latter offered higher returns. In general, REITs have learned from the 2008 financial crisis by reducing their leverage.[7]

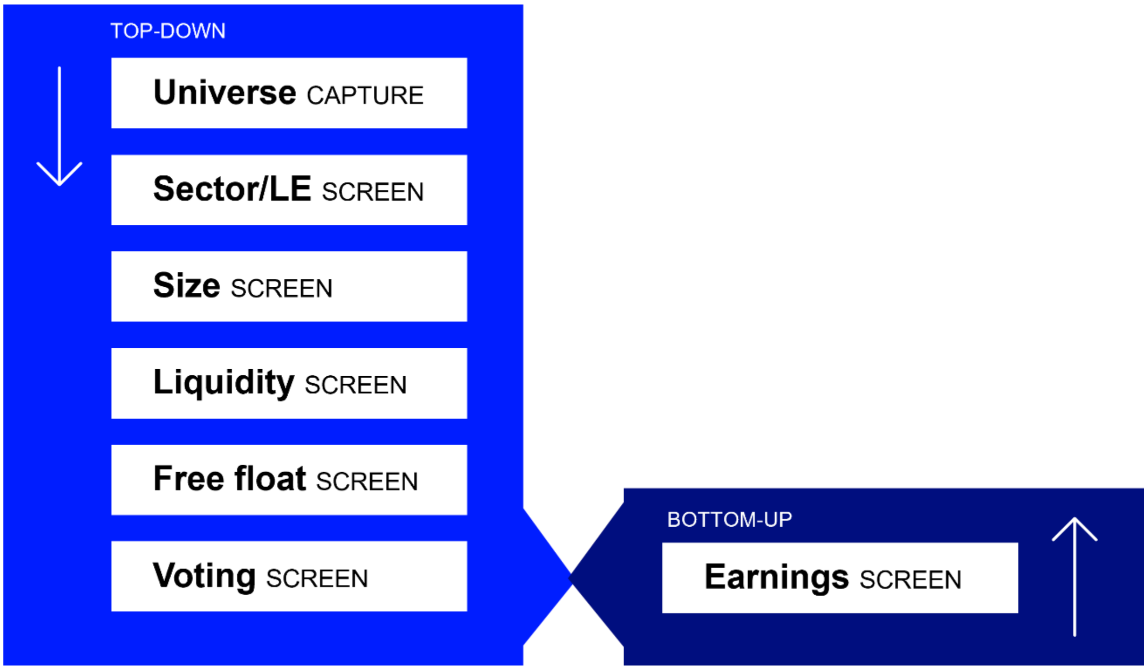
In recognition of the fact that REITs have their own distinct performance profile, in 2017, FTSE Russell separated real estate from financials in its industry classification benchmark (ICB)[8], creating an 11th industry classification and giving more visibility to REITs for equity investors.

[6] "Investing Amid Low Expected Returns", Wiley, April 2022.
[7] According to Janus Henderson, in 2022 REITs' leverage (measured as the ratio of debt to total assets) was at a more than two-decade historic low of just 28%.
[8] See https://www.ftserussell.com/data/industry-classification-benchmark-icb.

How do we build real estate indices?

FTSE Russell's approach to building real estate indices employs a top-down approach, distinguished by the bottom-up earnings screen applied at the end of the process. This means that security by security, the stocks included in the **FTSE EPRA Nareit Global Real Estate Index Series** have to pass a series of relevant real estate earnings tests to determine constituent eligibility (see figure 4), as set out in the index ground rules.[9]

Figure 4: Construction steps in the FTSE EPRA Nareit Global Real Estate Index Series



Source: FTSE Russell, March 2023.

Universe capture

The starting universe for the **FTSE EPRA Nareit Global Real Estate Index Series** is the FTSE Global Equity Index Series (GEIS), which includes over 18,000 large-, mid-, small- and micro-cap securities across 49 developed and emerging markets.

Sector/legal entity screen

The first screen for the **FTSE EPRA Nareit Global Real Estate Index Series** focuses on ICB sectors and legal entities. Stocks eligible for the index series must be classified in the following Industry Classification Benchmark (ICB) industries, sectors and subsectors:

– Real Estate (Industry 35)

– Storage Facilities (Subsector 40201050)

– Home Construction (Sector 40202010). Emerging Index universe only

[9] FTSE_EPRA_Nareit_Global_Real_Estate_Index_Series.pdf (ftserussell.com)

- Closed End Investments (Subsector 30204000 – provided we have qualified that the majority of the revenue in the Closed End Investment is derived from real estate activities)
- Computer Services (Subsector 10101010 – provided we have qualified that the majority of the revenue in the Computer Service company is derived from owning or operating a Data Centre business)

The initial universe may be expanded by FTSE Russell under guidance from EPRA, Nareit, and the Regional Advisory Committee. However, certain categories of legal entity are ineligible for inclusion in the index series. These include LLP, LP, MLP, PTP, LLC, BDC (according to official company filings), preference shares and Swedish class 'D' shares.

Size screen

Size thresholds for both new and continued index membership are applied at each quarterly index review. Currently, in developed markets, non-constituent securities that have an investable market capitalisation (after the application of investability weightings) equal to or greater than 10 basis points of their respective regional index will be eligible for index inclusion. For emerging markets this threshold rises to 30 basis points. The threshold for deletion from the index in developed markets (measured in the same way) is five basis points; for emerging markets, the threshold is 15 basis points. The difference between the thresholds for index entry and deletion helps prevent unnecessary index turnover.

Liquidity screen

A liquidity screen is conducted semi-annually in March and September, based on each security's monthly median daily trading volume. Securities that have not traded on 60 or more trading days during the past year will not be eligible for inclusion (up to and including the review cut-off date).

Free float/foreign ownership limit screen

Only companies with a free float of five percent or more are eligible for index inclusion. Where foreign ownership limits (FOL) exist, if the FOL is more restrictive than the free float, the FOL is used for calculating the company's investability weight.

The minimum foreign headroom (defined as (FOL-foreign holdings) / FOL) is 20% for new entrants and 10% for existing index constituents.

Voting rights screen

Companies assigned a developed market nationality are required to have greater than five percent of the company's voting rights (aggregated across all its equity securities, including, where identifiable, those that are not listed or trading) in the hands of unrestricted shareholders or they will be deemed ineligible for index inclusion.

Earnings screen

To become eligible for the index series, companies must have derived in the previous full financial year at least 75% of their total earnings before interest, tax, depreciation and amortisation (EBITDA) from the ownership, trading and development of income-producing real estate.

The construction of residential homes for sale qualifies as relevant real estate activity in all regions for the purposes of the EBITDA test. However, companies generating more than 50% of its revenues from home construction activities will be classified within the ICB subsector Home Construction (40202010) and be eligible for the Emerging Index only. For the purpose of the FTSE EPRA Nareit Global Real Estate Index Series, a security's developed or emerging markets assignment is also based on its EBITDA (see "The question of nationality" section below).

Index constituents must publish at least annually a publicly available audited report (in English), including a current set of accounts with a profit and loss statement, a balance sheet, a directors' review and full notes to the accounts.

The question of nationality

Determining the nationality of index constituents is often not straightforward, given that companies may be incorporated in one country, have their shares listed in another country (or several other countries), be domiciled for tax purposes elsewhere, and produce goods and services in still more locations. For example, consider a UK-listed company with property assets in Central and Eastern Europe. For index purposes, which nationality should it have?

The assignment of nationality to FTSE Russell index constituents follows our Nationality Guide, which links nationality to the location of the equity listing with the greatest liquidity. However, there are some specific rules applicable to the constituents of our real estate indices. These are detailed in section 4.9 of the **FTSE EPRA Nareit Global Real Estate Index** Ground Rules.

The net effect of these rules is to ensure that the nationality of a real estate company whose listing is in a developed market, and whose real estate activities are focused in a neighbouring emerging market, is assigned to that emerging market. In the case of a UK-listed company with property assets in Central and Eastern Europe, nationality would therefore be considered to belong to the latter countries. This rule is of particular relevance to Chinese real estate companies whose listings are in Hong Kong or Singapore.

Broad and specialist real estate indices

FTSE Russell's real estate index series is comprehensive, modular, and relevant, providing a range of broad and specialist indices to meet investors' individual needs (see figure 5).

Broad real estate indices include the **FTSE EPRA Nareit Developed Index** (tracking the performance of real estate stocks and REITs in developed markets) and the **FTSE EPRA Nareit Emerging Index** (tracking the performance of real estate stocks and REITs in emerging markets).

Other indices segment the real estate opportunity set by sector, region, country and type of security (for example, REIT and non-REIT or Rental and Non-rental).

Figure 5: FTSE Russell's real estate index range

COMPREHENSIVE

Spans the entire commercial real-estate sector of the global economy. Includes listed real-estate stocks and REITs from all relevant investment and property sectors.

MODULAR

Property sector, regional, and specialist indices are used to target more narrowly focused exposure to commercial real estate.

RELEVANT

Capped indices applying regulatory capping standards (e.g., UCITS) are also available

FTSE EPRA Nareit Global Real Estate Index Series

- Regional indices
- Developed
- Emerging
- REITs/Non-REITs
- Rental/Non-Rental
- Global Extended

FTSE Nareit US Real Estate Indices

- All Equity REITs
- Equity REITs
- Mortgage REITs
- Preferred Stock

FTSE EPRA Nareit IdealRatings Islamic Index Series

- Global Extended Islamic
- Global Islamic
- Developed Islamic
- Emerging Islamic

FTSE EPRA Nareit Green Indices

- Dev Green
- Dev Green Focus
- Dev Green EU CTB
- Dev Europe ex UK Green EU CTB
- Dev Green EU PAB
- Dev REITs Islamic Green

SECTOR INDICES

As a subset, FTSE EPRA Nareit property sector indices use a real estate-specific sector classification framework

SUPER LIQUID INDICES

These use a quantitative liquidity screening methodology that aims to identify the most liquid stocks within a given universe

CAPPED INDICES

These meet relevant local regulatory capping standards (limits on the percentage of a portfolio that may be invested in a particular sector or security

ISLAMIC INDICES

Designed to reflect the performance of global real estate equities that are Shariah-compliant[11]

GREEN INDICES

Extending FTSE EPRA Nareit Global Real Estate Index Series, these indices weight constituents according to sustainable investment measures, green building certification and energy usage. Following "tilt" methodology of the FTSE Global Factor Index Series[10], desired investment characteristics are achieved with minimum standards for liquidity, capacity, diversification and turnover

[10] See https://www.ftserussell.com/products/indices/factor
[11] See https://www.ftserussell.com/index/spotlight/ftse-shariah-suite-indexes

Real estate as a real asset

The main features of real estate as an asset class – relatively predictable income, the frequent inflation-linking of rents and a return stream that is relatively uncorrelated with other assets – make it a natural consideration for investors looking to achieve long-term savings goals.

These characteristics are also found in other 'real assets' – such as infrastructure – that promise a significant degree of inflation protection.

With renewed uncertainty about the future path of the world economy, interest rates and inflation, it's unsurprising that real assets are in renewed demand.

Conclusion

The **FTSE EPRA Nareit Global Real Estate Index Series** offers a comprehensive, modular and investable set of listed real estate benchmarks. Designed in collaboration with specialist external input, managed according to a transparent set of rules and overseen by FTSE Russell's rigorous governance framework, the indices are available in multiple configurations and currencies, meeting the requirements of a wide range of index users.

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ABOUT FTSE RUSSELL

FTSE Russell is a leading global provider of index and benchmark solutions, spanning diverse asset classes and investment objectives. As a trusted investment partner we help investors make better-informed investment decisions, manage risk, and seize opportunities.

Market participants look to us for our expertise in developing and managing global index solutions across asset classes. Asset owners, asset managers, ETF providers and investment banks choose FTSE Russell solutions to benchmark their investment performance and create investment funds, ETFs, structured products, and index-based derivatives. Our clients use our solutions for asset allocation, investment strategy analysis and risk management, and value us for our robust governance process and operational integrity.

For over 35 years we have been at the forefront of driving change for the investor, always innovating to shape the next generation of benchmarks and investment solutions that open up new opportunities for the global investment community.

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