

# Diversification, liquidity and transparency in global-listed real estate

## The FTSE EPRA/NAREIT Global Real Estate Index Series

Listed real estate securities offer investors the opportunity to access the commercial real estate market with the added liquidity, transparency and regulation associated with publicly traded stocks.

The FTSE EPRA/NAREIT Global Real Estate Index Series is designed to represent the performance of eligible listed real estate stocks worldwide, including real estate investment trusts (REITs) and other property-focused securities. The index series includes companies involved in the ownership and development of income-producing real estate.

The series provides comprehensive coverage of the liquid listed real estate universe by covering global, developed and emerging markets and includes a range of regional and country, capped, dividend-focused, sector, REIT and non-REIT indexes. At the same time, by requiring index constituents to derive at least 75% of their earnings before interest, tax, depreciation and amortization (EBITDA) from real estate-related activities to qualify for index inclusion, the series provides purer real estate exposure than other index series with less stringent eligibility criteria.

The indexes are administered by FTSE International in partnership with the European Public Real Estate Association (EPRA), a non-profit organization responsible for promoting and developing the European real estate sector, and the National Association of Real Estate Investment Trusts (NAREIT), the US-based association for REITs and publicly traded real estate companies.

## Characteristics of real estate as an asset class

As an asset class, real estate has several distinct characteristics:

- It is a tangible asset, offering a predictable income stream, derived from rents
- It provides the potential for long-term positive real returns as a result of the linkage to inflation indexes embedded in many rental contracts

- Direct investments are subject to liquidity limitations, high transaction costs and high lot size
- Property performance data is often based on valuations, rather than transactional data

The combination of an inflation-linked income stream, relative illiquidity and high transaction costs mean that, traditionally, real estate investments have been made with a long-term time horizon.

## Accessing the asset class—direct, unlisted and listed real estate

Direct investment in real estate has generally been more accessible to large institutions, who are able to transact in large lot sizes and who may be relatively indifferent to short-term liquidity risks. An investor making a direct investment in property gains direct access to the income streams from the properties owned, but is also responsible for property management and is reliant on in-house expertise or specialist advice in the management of its property portfolio.

For many investors, an indirect investment in real estate is the only feasible route of accessing this asset class with adequate levels of diversification. This means gaining access to real estate via a collective investment vehicle such as a partnership, corporation, mutual fund or trust, which may be unlisted or listed.

An unlisted real estate investment vehicle has to manage its liquidity carefully. If it allows investors to invest or divest daily it is likely to hold a significant buffer of cash or listed property securities alongside its direct property holdings, enabling it to meet redemption requests from the investors in the fund at short notice.

In stressed market conditions even such a cash or securities buffer may be insufficient to meet investors' demands for liquidity and the vehicle's managers may be forced to suspend redemptions. For example, this happened to a number of pooled UK commercial property funds in June/July 2016 in the aftermath of the Brexit vote.<sup>1</sup>

By design, a listed real estate investment vehicle offers investors an extra buffer of liquidity in the form of its stock exchange listing, which permits market participants to buy and sell on demand.

The most popular form of listed real estate investment company is the real estate investment trust (REIT). REITs were introduced in the US in the 1960s and have the legal obligation to distribute a high proportion (usually 90%) of their net income to investors each year. According to EPRA, legislation allowing for the listing of REITs existed in 34 countries around the world in 2016.<sup>2</sup>

In Exhibit 1, we show the proportion of the property markets represented by listed property vehicles in Europe, North America, Asia-Pacific and Africa/Middle East.

While the overall property markets of the US and Europe are similar in value (around US\$8 trillion), a smaller percentage of the market is accessible via listed property vehicles in Europe (5.9%) than in the US (11.5%). However, with the growth of listed property vehicles and the popularization of the REIT structure, this figure is steadily on the rise.<sup>3</sup>

<sup>1</sup> <https://www.ft.com/content/5c1be46c-4456-11e6-b22f-79eb4891c97d>

<sup>2</sup> EPRA Global REIT Survey 2016

<sup>3</sup> [http://www.epra.com/media/Listed\\_Real\\_Estate\\_-\\_Building\\_a\\_Stronger\\_Europe\\_report\\_1365168038957.pdf](http://www.epra.com/media/Listed_Real_Estate_-_Building_a_Stronger_Europe_report_1365168038957.pdf)

## Exhibit 1. Listed property markets by region

Region	Underlying Property Market (\$bn)	Listed Property Market (\$bn)	Listed as a Percent of Underlying	Stock Market	Listed Property as a Percent of Stock Market
Europe	7,993.2	472.9	5.9	13,494	3.5
North-America	8,331.0	960.1	11.5	26,670	3.6
Asia-Pacific	4,335.1	869.9	20.1	12,551	6.9
Africa / Middle East	212.3	19.0	9.0	41	28.7
<b>Global</b>	<b>\$19,719.85</b>	<b>\$2,271.76</b>	<b>11.5%</b>	<b>\$49,834</b>	<b>4.6%</b>

Source: EPRA, property market data as of December 30, 2014, listed property and stock market data as of March 2015.

## Why listed real estate?

Institutional investors' allocations to real estate continue to rise. According to a recent survey by Cornell University and Hodes Weill and Associates,<sup>4</sup> covering 228 institutional investors in 28 countries with over US\$10.3 trillion under management, the average target allocation to real estate within institutional portfolios now stands at 9.9%, up 1% since 2013. The institutions surveyed indicated their intention to increase their target allocation by a further 0.4% by 2017.

Within the real estate asset class, listed real estate securities offer a combination of features that are important for investors unable to consider direct investments or who may be concerned about the illiquidity and high transaction costs traditionally associated with the asset class.

Shares of listed real estate are readily converted into cash because they are traded on the major stock exchanges. And listed real estate companies offer an extra layer of governance to investors: they operate under company law, as well as having to meet accounting standards and stock exchange rules and reporting requirements.

## The FTSE EPRA/NAREIT Global Real Estate Index Series

The FTSE EPRA/NAREIT Global Real Estate Index Series is designed as a set of relevant, focused and investable real estate benchmarks, suitable for use either in performance measurement or as the underlying performance target for index-replicating financial products.

The principal characteristics of the index series are summarized in Exhibit 2.<sup>5</sup>

<sup>4</sup> [http://hodesweill.com/static/media/uploads/2016%20Allocations%20Monitor\\_final.pdf](http://hodesweill.com/static/media/uploads/2016%20Allocations%20Monitor_final.pdf)

<sup>5</sup> See the [FTSE EPRA/NAREIT Global Real Estate Index Series Ground Rules](#) for additional details.

## Exhibit 2. FTSE EPRA/NAREIT Global Real Estate Index Series

<b>Investment Universe</b>	Common stocks, listed on an official stock exchange and classified within the following ICB sectors/subsectors: Real Estate, Heavy Construction, or Home Construction.
<b>Screen for relevant activities</b>	Must have derived at least 75% of total EBITDA from ownership, trading and development of income-producing real estate.
<b>Screen for size and liquidity</b>	Size thresholds (based on a percentage of the respective region's investable market capitalization) are applied at each quarterly review. A liquidity screen is conducted semi-annually in March and September, based on each security's monthly median daily trading volume.
<b>Adjust for free float and foreign ownership limits</b>	Companies with a free float of 5% or below are excluded and the index weights of other stocks are adjusted to reflect investability. Where foreign ownership limits (FOL) exist, if the FOL is more restrictive than the free float, the FOL is used in place of the free float for calculating the company's investability weight.
<b>Coverage</b>	The index series has sub-series including developed/emerging, regional and local exposures. Specialist series include investment focus, property sector and super liquid indexes.
<b>Oversight</b>	Reviews are carried out quarterly in March, June, September and December. The index series is overseen by the FTSE EPRA/NAREIT Supervisory and Regional Advisory Committees consisting of global real estate investment professionals. FTSE International is the benchmark administrator, as defined by the IOSCO Principles for Financial Benchmarks published in July 2013.

Source: FTSE Russell

The index series is designed to reflect the equity market performance of companies engaged in the major real estate markets of the world. As well as including a global index, the series covers the major geographical regions (the Americas, the UK, Europe and the Eurozone, Asia-Pacific and Japan).

The series also includes a number of indexes with a specific focus, such as developed and emerging market indexes, REIT and non-REIT indexes, dividend plus indexes, capped indexes and super liquid indexes.

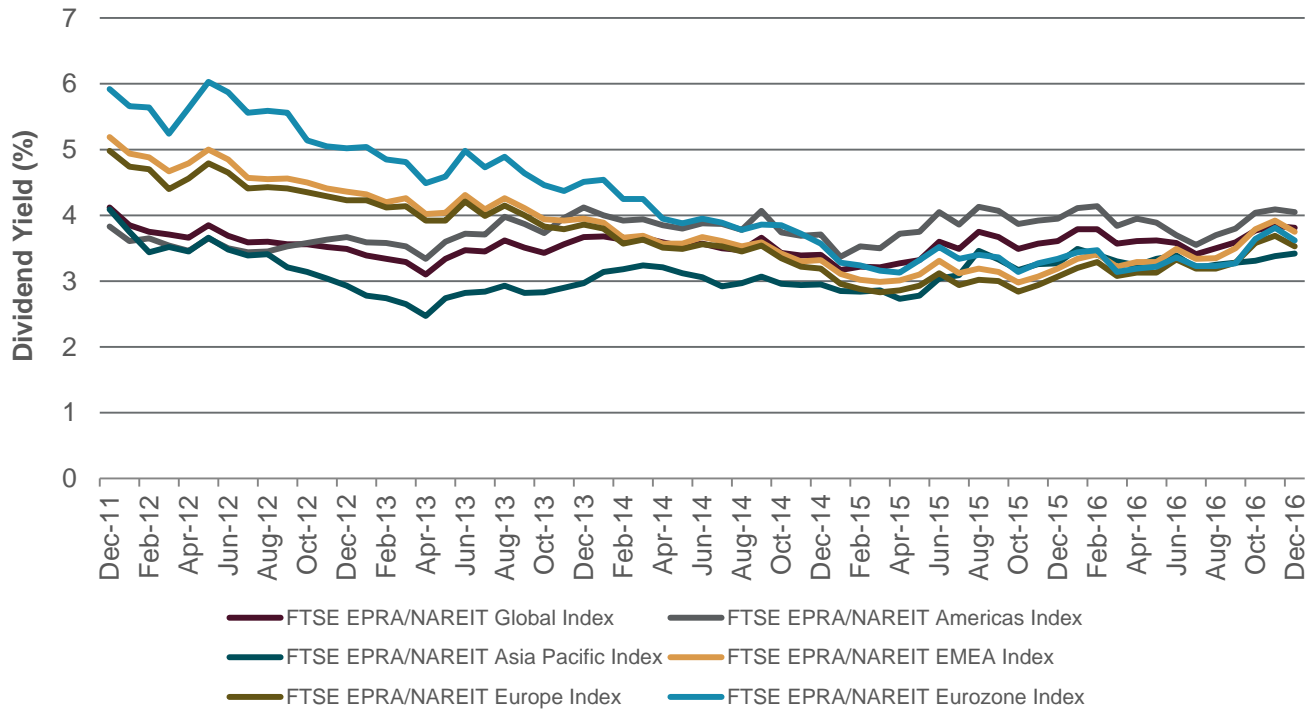
The principal indexes within the series are the following:

FTSE EPRA/NAREIT Global Index	FTSE EPRA/NAREIT Asia Pacific Index
FTSE EPRA/NAREIT Global ex US Indexes	FTSE EPRA/NAREIT Asia Pacific ex Japan Index
FTSE EPRA/NAREIT Developed Index	FTSE EPRA/NAREIT Europe Index
FTSE EPRA/NAREIT Developed Dividend+ Index	FTSE EPRA/NAREIT Eurozone Index
FTSE EPRA/NAREIT Developed Super Liquid Index	FTSE EPRA/NAREIT Developed ex UK Capped Index
FTSE EPRA/NAREIT Emerging Index	FTSE EPRA/NAREIT UK Index
FTSE EPRA/NAREIT Americas Index	FTSE EPRA/NAREIT US Dividend+ Index

## Yield, performance and correlations

The income stream generated by commercial real estate is traditionally seen as one of the primary attributes of this asset class. As of December 2016 (see the chart below), the yields on the FTSE EPRA/NAREIT Global Real Estate Index Series were consistently above 3%, including the FTSE EPRA/NAREIT Europe Index yield, compared to the current ECB fixed refinancing rate of 0%.<sup>6</sup>

**Exhibit 3. FTSE EPRA/NAREIT Global Real Estate Index Series yields**

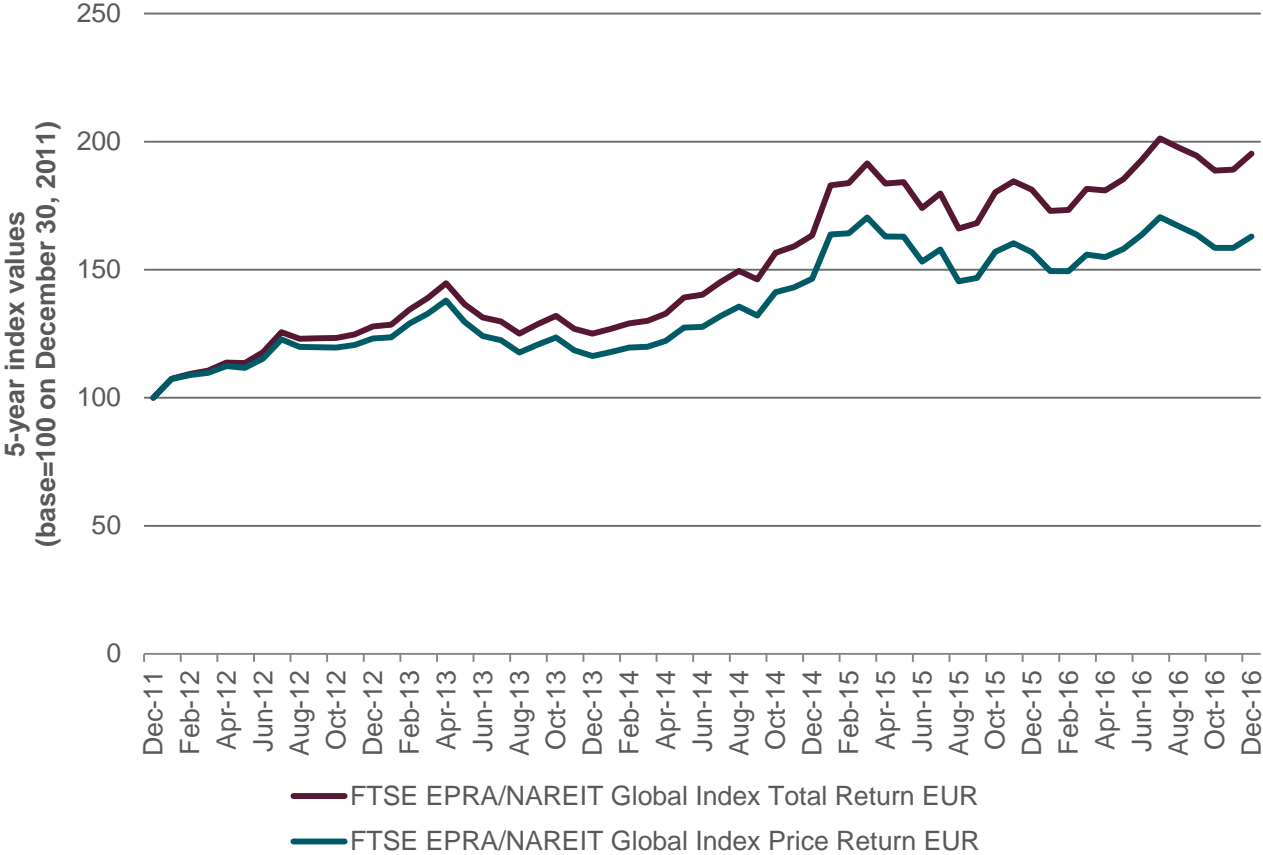


Sources: FTSE Russell, data as of December 30, 2016. Past performance is no guarantee of future results. Please see the disclaimer for important legal disclosures.

<sup>6</sup> Source: European Central Bank, data as of January 18, 2017, retrieved from <http://sdw.ecb.europa.eu/reports.do?node=10000025>

Over the five-year period to December 30, 2016, the difference between price and total return indexes, shown in Exhibit 4, illustrates the positive contribution of dividends to the performance of the FTSE EPRA/NAREIT Global Index.

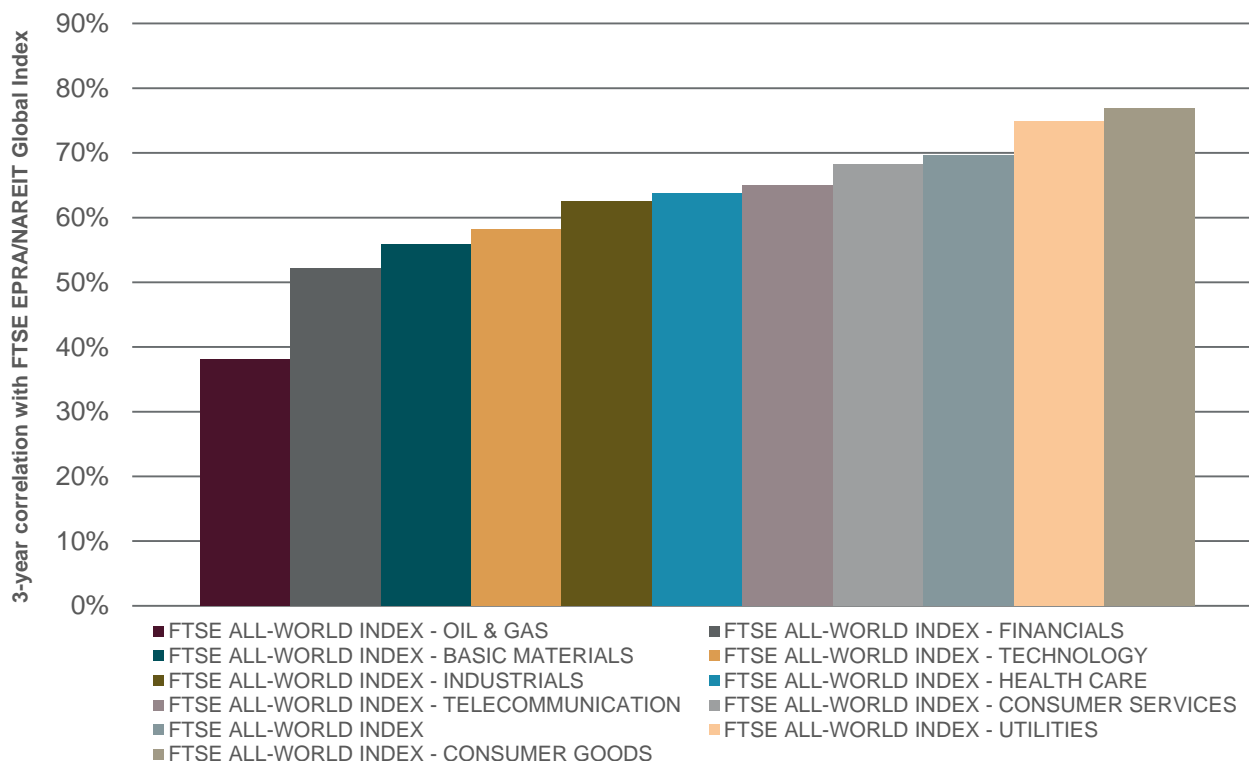
**Exhibit 4. FTSE EPRA/NAREIT Global Index performance – Total and price return indexes in euro**



Source: FTSE Russell, data as of December 30, 2016. Past performance is no guarantee of future results. Please see the disclaimer for important legal disclosures.

As shown in Exhibit 5, over the three-year period ended December 30, 2016, the FTSE EPRA/NAREIT Global index's correlation with the broad FTSE All-World Index was 70%. On a sector-by-sector basis, correlations between equities and the FTSE EPRA/NAREIT Global Index were lower: at 38%, the Oil & Gas sector was significantly less correlated than the overall FTSE All-World Index with global listed real estate. The correlations of the Financials, Basic Materials and Technology sectors of the FTSE All-World Index with global listed real estate stocks ranged from 52% to 58% over the same period. These correlation figures demonstrate the potential of global listed real estate securities to act as a diversifier in a broader equity portfolio.

## Exhibit 5. FTSE EPRA/NAREIT Global Index 3-year correlation to FTSE All-World Index and Industries



Source: FTSE Russell, data as of December 30, 2016. Past performance is no guarantee of future results. Please see the disclaimer for important legal disclosures.

At the same time, a portfolio of listed real estate securities provides a proxy for the returns of a direct investment in real estate. According to a research report conducted by academics for EPRA,<sup>7</sup> despite the evident linkage between the returns of listed real estate and those of the broader stock market, the correlation between listed and direct real estate remains high. The authors use an asset pricing model to decompose the past returns of listed real estate and calculate that they consist of 36% stock market risk, 40% real estate risk and 24% business cycle risk.

## A valuable addition to investors' toolkits

For any investor with a diversified portfolio, a global listed real estate index series represents a valuable addition to the asset allocation toolkit.

Representing 4.6% of the global equity market as of the end of 2014,<sup>8</sup> listed real estate securities represent a substantial proportion of the investment opportunity set. And the characteristic features of real estate as an asset class—an often relatively predictable income stream and the frequent inflation-linking of rents, offering the prospect of long-term real returns, together with a relatively uncorrelated return stream by comparison with other equity market sectors—make this category of investment a natural consideration for investors looking to diversify portfolios with long-term savings goals.

<sup>7</sup> "Are REITS real estate or equities?", Tim Kroenke, Felix Schindler and Bertram Steiniger, EPRA Research, 2014

<sup>8</sup> See Exhibit 1.

## For more information about our indexes, please visit [ftserussell.com](http://ftserussell.com).

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