

MONTHLY MARKET REVIEW

Monthly Market Review and Developers' Research Benchmark

October 2022



2

Overview

The FTSE EPRA Nareit (FEN) Global Developed Real Estate Index gained 2.1% in October and brought the YTD return to -16.3%. Global equities gained 4.9% compared to a loss of 1.5% from global bonds.

In terms of regional performance, Europe and North America returned positive (3.7%, for each), while Asia slipped 3.0%. In addition, emerging markets lost 10.3%.

Focusing on sector performance, lodging/resorts (15.7%) was an outperformer followed by retail (9.8%), specialty (8.1%) and industrial (5.3%), while residential (-3.0%), healthcare (-1.7%), diversified (-1.6%) and data centres (-68 bps) were bottom performers. The remaining sectors posted positive but relatively limited returns in October.

At the end of October, **the FEN Developed Index** totalled **380** constituents, representing a free float market capitalisation of around **EUR 1.50 trillion** and **the FEN Emerging Index** totalled **126** constituents, representing a free float market capitalisation of around **EUR 108 billion**

EPRA Developers Research Benchmark and 2022-H2 Semi-Annual Review

The **EPRA Developers Research Benchmark** is a non-commercial benchmark designed to allow its constituents to assess themselves against each other. The 2022-H2 review took place in October, presenting no deletion and one addition of *YIT OYJ* (Finland, Diversified). As a result, the benchmark now has a total of 29 constituents from 11 different countries in Developed Europe (17 out of the UK) and an aggregated full market cap of **EUR 37,896 million** (31/10/2022). A high-level computation can be found in the relevant section (page 5).

Highlights of the Month

The FEN Developed Europe Index gained momentum and posted a return of 3.7% during October. Now YTD return stands at -37.1% that the index lost 31.7% since the beginning of the war in Ukraine (cumulative return since 23/02/2022). Focusing on sector performances, all sectors returned positive with lodging/resorts outperforming posting a 13.7% monthly return, followed by office (8.7%), self-storage (8.6%) and retail (7.9%). Meanwhile, residential (18 bps) and healthcare (1.0%) were bottom performers with still positive but relatively lower returns for the month. Even though all sectors performed well this month, they lost momentum since the beginning of the year posting negative YTD returns and trading below their pre-Covid19 (Table 1). Self-storage is now the only sector trading above its pre-Covid19 level with 2.3% cumulative return (since 19/02/2020) and has premium to NAV (9.6%)- *You can read <u>the latest report.</u>*

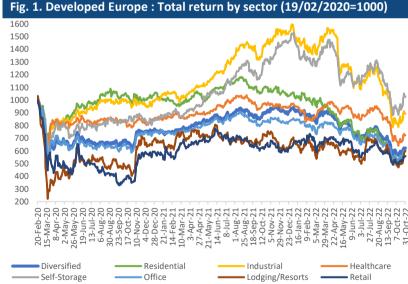
The economic and political turbulence has continued to pressure on markets. Euro area annual inflation is expected to be 10.7% in October 2022, up from 9.9% in September according to Eurostat's estimate. Looking at the main components of inflation, energy has the highest annual rate in October (41.9%), and the geopolitical uncertainty in Europe has been creating more concerns on energy price hike. The ECB raised the three key ECB interest rates by 75 basis points and gave signal for more hikes in the forthcoming periods to bring down inflation, which is expected to remain far too high.

The concerns on moving into a recession even before the end of the year continues to deepen. However, no preliminary data is indicating a recession in Europe yet, with not strong but stable employment and economic growth. According to Eurostat estimation, GDP will rise by 0.2% (q-o-q) and 2.1% (y-o-y) in the euro area in Q3-2022, and employment rate decreased from 7.3% to 6.6% in September (y-o-y).

You can read our blog on market performance comparison during challenging times 'Listed Real Estate in context: A sector comparison' and the latest report Interest rates and inflation : What are the challenges for listed real estate.

FTSE EPRA Nareit Global Index Total Return

				1	3	5	10
% Total Returns (EUR)		Oct-22	YTD	yr	yrs*	yrs*	yrs*
Global Real Estate		2.1	-16.3	-11.4	-1.6	4.1	6.8
Global Equities (FTSE)		4.9	-3.8	-0.5	11.4	7.2	10.3
Global Bonds (JP Morgan)	•	-1.5	-8.8	-7.8	-3.2	2.3	2.5
Europe Real Estate		3.7	-37.1	-35.8	-10.9	-3.4	4.0
Europe Equities (FTSE)		6.2	-13.9	-12.0	2.9	3.2	7.3
Europe Bonds (JP Morgan)		-0.3	-5.1	-3.6	-2.5	1.3	4.0
Asia Real Estate		-3.0	-8.1	-9.4	-5.3	1.5	3.9
Asia Equities (FTSE)		-1.5	-2.4	-1.9	6.8	5.4	10.8
Asia Bonds (JP Morgan)		-1.0	9.1	11.0	1.6	3.0	3.8
North America Real Estate		3.7	-14.1	-5.9	1.9	6.9	8.8
NA Equities (FTSE)		6.8	-5.8	-1.8	14.5	13.8	15.5
NA Bonds (JP Morgan)		-2.3	-0.6	1.0	0.6	3.0	3.3
Emerging Real Estate		-10.3	-18.7	-18.5	-13.7	-6.8	1.0
Emerging Equities (FTSE)	•	-5.0	-15.4	-16.1	0.9	1.8	4.5
Emerging Bonds (JP Morgan)	▼	-0.9	-10.4	-9.2	-2.4	0.9	3.7
(*) Annualised.							

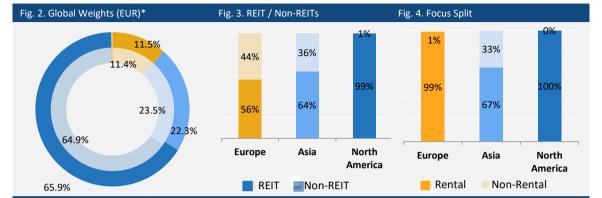


Source: EPRA Research. Data is compiled from the FEN Index series (as of October 31, 2022).

European Public Real Estate Association Square de Meeus, 23 1000 Brussels, Belgium **T** +32 (0) 2739 1010 **F** +32 (0) 2739 1020









(*) Shaded bars are last month's (**) Shaded bars are 10 yr.

Dev. Europe:Total R	leturn	Weekly Total Return by Sector			YTD Ukraine wa		Covid-19	
	Oct-22	7-Oct	14-Oct	21-Oct	28-Oct	Dec-21	23-Feb-22	19-Feb-20
Developed Europe	3.7%	-4.4%	-0.2%	0.7%	7.1%	-37.1%	-31.7%	-37.4%
Self-Storage	8.6%	-0.7%	-1.4%	1.6%	10.6%	-32.7%	-20.4%	2.3%
Industrial	4.1%	-4.1%	1.6%	-0.8%	8.5%	-44.1%	-35.5%	-10.9%
Healthcare	1.0%	-5.1%	-1.4%	0.2%	8.4%	-25.0%	-14.7%	-27.8%
Diversified	3.3%	-4.2%	0.1%	0.5%	6.0%	-33.4%	-28.0%	-38.0%
Office	8.7%	-2.3%	0.4%	1.0%	9.1%	-29.1%	-22.8%	-40.1%
Lodging/Resorts	13.7%	-7.6%	0.5%	1.5%	17.7%	-12.7%	-6.6%	-40.1%
Residential	0.2%	-6.2%	-2.2%	2.6%	5.2%	-46.9%	-43.4%	-44.3%
Retail	7.9%	-0.9%	-0.3%	0.8%	7.9%	-12.1%	-21.0%	-44.4%

Source: EPRA Research. Data is compiled from the FEN Index series (as of October 31, 2022).

European Public Real Estate Association Square de Meeus, 23 1000 Brussels, Belgium

FTSE EPRA Nareit Developed Europe - Country Indices

% Total Returns	Oct-22	YTD	1 yr	3 yrs*	5 yrs*	10 yrs*
Europe (EUR)	3.7	-37.1	-35.8	-10.9	-3.4	4.0
Europe ex UK (EUR)	2.9	-38.3	-38.4	-12.2	-4.2	4.1
UK (GBP)	2.9	-32.9	-28.1	-8.0	-2.2	4.1
France (EUR)	10.1	-15.1	-15.9	-11.9	-4.4	2.3
Netherlands (EUR)	9.6	-15.3	-16.2	-23.1	-19.1	-6.6
Germany (EUR)	-0.3	-51.3	-52.8	-18.0	-7.6	4.4

FTSE EPRA Nareit Developed Index – Top 10 Constituents

Company	Sector	Country		Total Return
ProLogis USA	Industrial	USA		9.0%
Equinix	Data Centers	USA	▼	-0.4%
Public Storage, Inc.	Self-Storage	USA		5.8%
Realty Income Corp.	Retail	USA		7.4%
Simon Property Group, Inc.	Retail	USA		21.4%
Vici Properties Inc	Specialty	USA		7.3%
Digital Realty Trust	Data Centers	USA		1.1%
Welltower Europe	Healthcare	USA	▼	-5.1%
AvalonBay Communities, Inc.	Residential	USA	•	-4.9%
Alexandria Real Estate Equities, Inc.	Office	USA		3.7%

FTSE EPRA Nareit Developed Index – Top 10 Performers

Sector	Country	Tot	al Return
Diversified	USA		60.1%
Retail	USA		40.2%
Residential	USA		39.2%
Retail	USA		33.3%
Lod./Resorts	USA		28.6%
Diversified	SWED		25.7%
Lod./Resorts	USA		24.4%
Lod./Resorts	US		23.9%
Retail	USA		23.0%
Lod./Resorts	USA		22.3%
	Diversified Retail Residential Retail Lod./Resorts Diversified Lod./Resorts Lod./Resorts Retail	DiversifiedUSARetailUSAResidentialUSARetailUSALod./ResortsUSADiversifiedSWEDLod./ResortsUSALod./ResortsUSRetailUSA	DiversifiedUSARetailUSAResidentialUSARetailUSALod./ResortsUSALod./ResortsUSALod./ResortsUSALod./ResortsUSARetailUSALod./ResortsUSALod./ResortsUSALod./ResortsUSALod./ResortsUSA

T +32 (0) 2739 1010 **F** +32 (0) 2739 1020



FTSE EPRA Nareit Developed Europe Index

The FEN Developed Europe Index posted a positive return of 3.7% in October. European equities gained 6.2% compared to a loss of 28 bps from European bonds.

France (10.1%), the Netherlands (9.6%), and the UK (2.9%) indexes returned positive, while Germany (-31 bps) index posted negative return in Developed Europe for the month.

As a result of a tender offer by Alexandrite Monnet Belgian Bidco (nonconstituent and controlled by one of Brookfield's real estate private funds), *Befimmo* (Belgium, constituent) was deleted from the index.

Sector Performance: All sectors returned positive; lodging/resorts (13.7%), office (8.7%) and self-storage (8.6%) were top performers, while residential (18 bps) and healthcare (1.0%) were bottom performers with still positive but relatively lower returns.

Performance of top 3 constituents: Samhällsbyggnadsbolaget i Norden (25.7%, Sweden, Diversified), Great Portland Estates plc (16.8%, UK, Office), Pandox AB (14.2%, Sweden, Lodging/Resorts).

FTSE EPRA Nareit Developed Asia Index

The FEN Developed Asia Index slipped 2.9%. Asian equities and bonds also lost 1.5% and 1.0% in October, respectively.

Australia (10.5%) and Japan (1.8%) indexes returned positive, while South Korea (-21.9%), Hong Kong (-11.4%) and Singapore (-6.0%) indexes posted negative returns for the month in Asia (in local currencies).

There was no major corporate action in Developed Asia region.

Sector Performance: Retail (5.4%) and lodging/resorts (1.9%) were top performers, while the remaining sectors returned negative that diversified (-4.3%), office (-4.1%) and industrial (-4.1%) were bottom performers.

Performance of top 3 constituents: Arena REIT No.1 (18.0%, Australia, Specialty), National Storage REIT (17.0%, Australia, Self-Storage), Centuria Industrial REIT (17.0%, Australia, Industrial).

<u>Developed Asia</u> representing a free float MCap of around EUR 335 billion with 136 constituents

FTSE EPRA Nareit North America Index

The FEN North America Index gained 3.7% in October. North America equities gained 6.8% compared to a loss of 2.3%% from bonds.

Both the US index (4.6%) and Canada (2.1%) indexes returned positive for the month (in local currencies).

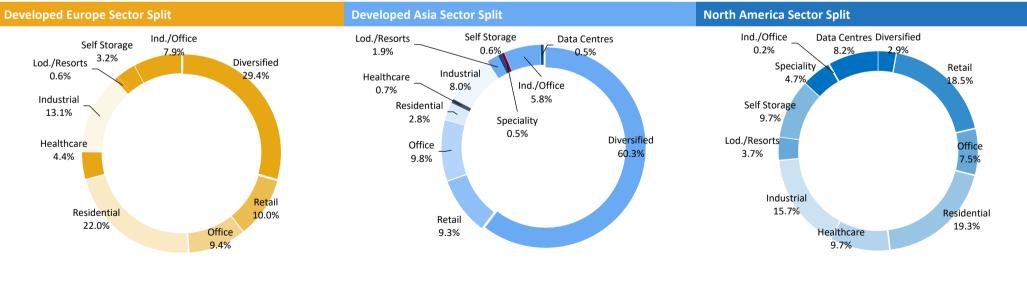
Following the completion of the merger, *Prologis* (USA, constituent) remained in the index with increased shares of 922,883,185 from 740,267,000 to and a decreased investability weighting from 99.67% to 99.65%, while *Duke Realty Corp* (USA, constituent) was deleted from the index.

Sector Performance: Lodging/resorts (18.5%), industrial/office (12.5%) and retail (10.8%) were top performers and the remaining sectors also returned positive except residential (-3.6%) and data centres (-77 bps), as bottom performers.

Performance of top 3 constituents: Service Properties Trust (60.1%, USA, Diversified), Macerich Company (40.2%, USA, Retail), Veris Residential Inc. (39.2%, USA, Residential).

<u>Developed North America</u> representing a free float MCap of around **EUR 990** billion with **132** constituents

<u>Developed Europe</u> representing a free float MCap of around EUR 173 billion with 110 constituents



European Public Real Estate Association Square de Meeus, 23 1000 Brussels, Belgium **T** +32 (0) 2739 1010 **F** +32 (0) 2739 1020



EPRA Developers Research Benchmark





Historical Performance	Last Month	1 Year	3 Years	5 Years
Total Return	8.1%	-39.2%	-29.6%	-27.2%
Total Return (Annualized)		-39.2%	-9.9%	-5.4%

Return	3 Months	6 Months	Year to Date	5 Years
Total Return	-24.3%	-24.6%	-42.8%	-27.2%
Maximum Return	5.3%	5.3%	5.3%	11.6%
Minimum Return	-5.6%	-5.6%	-6.1%	-13.2%
Mean Return (Annualized)	-76.1%	-50.6%	-58.2%	-2.1%
Maximum Drawdown	-34.4%	-35.3%	-51.1%	-55.3%
Maximum Drawdown Length	52	97	201	690

Risk	3 Months	6 Months	Year to Date	5 Years
Standard Deviation (Annualized)	40.5%	33.8%	31.9%	31.1%
Downside Risk (Annualized)	27.5%	24.3%	23.0%	22.1%
Kurtosis	-0.51	0.02	0.28	6.92
Skewness	0.22	-0.08	-0.14	0.07
Semivariance (Annualized)	38.1%	35.2%	33.5%	31.5%
VaR (ex-post)	-4.25	-3.94	-3.73	-2.98
Risk-Adjusted Performance	3 Months	6 Months	Year to Date	5 Years
Sharpe Ratio	-1.57	-1.16	-1.44	-0.03

The EPRA Developers Research

Benchmark is an equity index aiming to represent the aggregated performance of the most significant and liquid real estate developers in Europe, including both residential and commercial developers.

This is a benchmark developed for research purposes only, using free float market cap as the main input for computing index weights. The final list of constituents has been filtered applying a comprehensive methodology that combines both market and real estate criteria to determine the best companies to represent the sector. Two subindexes are also computed: 1) Liquid Developers (FFMC > EUR 500M) and 2) Residential Developers

Key Features

Benchmark Type: Equity Index Industry: Real Estate Developers Launch Date: 31/Dec/2021 Geography: Developed Europe Weights Input: FF Market cap Base Currency: EUR Base Date: 30/Sep/2016 Base Value: 1,000 Review Dates: April, October 5

Perfomance figures available on this report.

Raw data accessible on demand at

research@epra.com



EPRA Developers Research Benchmark Monday, 31 October 2022								
Constituent	ISIN	Weight	Country	Currency				
PERSIMMON	GB0006825383	15.25%	UK	GBp	Belgium, 1.05% Poland, 1.02% Denmark, 0.35% Germany, 0.69% Finland, 1.15%			
BARRATT DEV	GB0000811801	13.95%	UK	GBp	Germany, 0.69% Spain, 2.79% Ireland, 3.70%			
BERKELEY GROUP	GB00BLJNXL82	13.66%	UK	GBp	Norway, 0.38%			
TAYLOR WIMPEY PL	GB0008782301	11.94%	UK	GBp	Sweden,			
BELLWAY PLC	GB0000904986	8.46%	UK	GBp	2.16% France, United 5.97% Kingdom,			
REDROW PLC	GB00BG11K365	4.87%	UK	GBp	80.73%			
VISTRY GROUP PLC	GB0001859296	4.72%	UK	GBp				
COUNTRYSIDE PART	GB00BYPHNG03	3.76%	UK	GBp				
CREST NICHOLS	GB00B8VZXT93	1.85%	UK	GBp	Eligibility Criteria			
WATKIN JONES PLC	GB00BD6RF223	0.82%	UK	GBp	EBITDA: ≥ 50% from Property Development			
HARWORTH GROUP P	GB00BYZJ7G42	0.75%	UK	GBp	EBITDA: ≥ 75% from Real Estate Activities			
MJ GLEESON PLC	GB00BRKD9Z53	0.68%	UK	GBp				
GLENVEAGH PROPER	IE00BD6JX574	1.88%	Ireland	EUR	Size: > 0.30% of the Benchmark size and			
CAIRN HOMES	IE00BWY4ZF18	1.82%	Ireland	GBp	Minimum of EUR 150 Million in FFMC			
NEXITY	FR0010112524	2.91%	France	EUR				
ALTAREA	FR0000033219	1.84%	France	EUR	Liquidity: ≥ 0.05% of their (FF) shares in			
KAUFMAN & BROAD	FR0004007813	1.22%	France	EUR	issue based on their median daily trading			
METROVACESA SA	ES0105122024	1.45%	Spain	EUR	volume per month			
NEINOR HOMES SA	ES0105251005	0.88%	Spain	EUR				
AEDAS HOMES SA	ES0105287009	0.46%	Spain	EUR	Reporting: public AR in English (Full set of			
JM AB	SE0000806994	2.16%	Sweden	SEK	audited FS, notes and Mgt Report)			
YIT OYJ	FI0009800643	1.15%	Finland	EUR				
IMMOBEL	BE0003599108	0.53%	Belgium	EUR	Geography: ≥ 75% EBITDA from Developed			
ATENOR	BE0003837540	0.52%	Belgium	EUR	countries			
DEVELIA SA	PLLCCRP00017	0.58%	Poland	PLN				
DOM DEVELOPMENT	PLDMDVL00012	0.44%	Poland	PLN	Assets: ≥ 50% of Total Tangible Assets			
INSTONE REAL EST	DE000A2NBX80	0.69%	Germany	EUR	invested in RE. No Holding structures.			
SELVAAG BOLIG AS	NO0010612450	0.38%	Norway	NOK				
HUSCIET A/S	DK0061412855	0.35%	Denmark	DKK	Eligible Markets: Premium and main trading			
					segments of official stock exchanges.			
Developers Sub-Indexes: Risk and Return	3 Months	6 Months	Year to Date	5 Years				
Residential Developers: Total Return	-24.54%	-24.24%	-43.26%	-27.66%	Data Availabilty: Monthly computations. Performance figures available on this report			

42.72%

-24.55%

41.70%

35.57%

-24.58%

34.70%

33.44%

-43.28%

32.65%

32.17%

-26.69%

31.73%

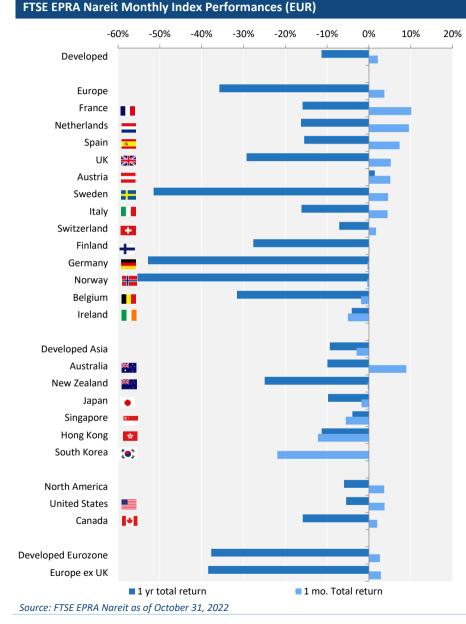
Residential Developers: Standard Deviation (Annualized)

Liquid Developers: Standard Deviation (Annualized)

Liquid Developers: Total Return

6





European Public Real Estate Association Square de Meeus, 23 1000 Brussels, Belgium Link to Reports & Contacts

Monthly Statistical Bulletin Monthly Published NAV Bulletin

Monthly LTV Report

Visit our website to read our reports: Monthly Reports

Index Ground Rules Version 11.3

Emerging Markets 2021 (special edition)

Sector Analysis: Residential

Sector Analysis: Office (Aug-21)

Total Markets Table 2022-Q3 (quarterly)

E P R A Explore our interactive infographic Global Real Estate Total Markets Table

EPRA CONTACTS:

Dilek Pekdemir, PhD. Research Manager d.pekdemir@epra.com

David Moreno, CFA Indexes Manager, Indices & Research <u>d.moreno@epra.com</u>

Lourdes Calderon Ruiz Senior Analyst Indices & Research <u>l.calderonruiz@epra.com</u>

T +32 (0) 2739 1010

F +32 (0) 2739 1020

Iskren Marinov Analyst Indices & Research <u>i.marinov@epra.com</u>

EPRA Call for Research Proposal 2023

The annual CfP 2023 is open, the deadline for submissions is 23:59 CET on Friday, **November 4, 2022**. EPRA welcomes submissions from both academic researchers and market practitioners. For more information <u>research@epra.com</u>



EPRA Bayes Business School Online Programme, 2022 October Edition: Understanding the REIT price

An online programme dedicated to understanding the listed real estate market, starting the week of 17th October 2022. You can <u>register</u> now and for more *contact <u>education@epra.com</u>*.

EPRA INSEAD Education Programme, 2023 Edition (20-22 June, Fontainebleau)

Held in partnership with INSEAD, the Executive Programme is a unique, intensive course that covers the latest trends shaping the listed real estate sector, such as e-commerce and logistics, digitalisation and data analytics. For more, you can contact education@epra.com.

EPRA's latest research report

Read the latest EPRA's special report (June 2022) Interest rates and inflation : What are the challenges for listed real estate? Download EPRA's special report (February 2022) Inflation and short-term impact on listed property companies EPRA Blog

Read articles on the latest trends on our blog

Disclaimer

EPRA does not intend this presentation to be a solicitation related to any particular company, nor does it intend to provide investment, legal or tax advice. Investors should consult with their own investment, legal or tax advisers regarding the appropriateness of investing in any of the securities or investment strategies discussed in this presentation. Nothing herein should be construed to be an endorsement by EPRA of any specific company or products or as an offer to sell or a solicitation to buy any security or other financial instrument or to participate in any trading strategy. EPRA expressly disclaims any liability for the accuracy, timeliness or completeness of data in this presentation. Unless otherwise indicated, all data are derived from, and apply only to, publicly traded securities. Any investment returns or performance data (past, hypothetical or otherwise) are not necessarily indicative of future returns or performance.