



Overview

The FTSE EPRA Nareit (FEN) Global Developed Real Estate Index lost 4.6% and now YTD return stands at -7.6% as of October. Both global equities (-2.7%) and bonds (-1.1%) returned negative for the month.

In terms of regional performance, all regions posted negative returns for the month: Europe (-3.5%), Asia (-5.2%), North America (-4.5%). Emerging markets (-5.2%) also returned negative during October.

Focusing on sector performance, data centres (1.0%) was top performer and the remaining sectors returned negative of which self-storage (-10.7%), industrial (-8.2%) and office (-7.4%) were the bottom performers.

At the end of October, the FEN Developed Index totalled 368 constituents, representing a free float market capitalisation of around EUR 1.3 trillion and the FEN Emerging Index totalled 127 constituents, representing a free float market capitalisation of around EUR 113 billion.

EPRA Developers Research Benchmark

The EPRA Developers Research Benchmark is a non-commercial benchmark designed to allow its constituents to assess themselves against each other. During H2-2023 review took place in October, there were no deletions or additions. The French constituent, *Altarea* has been reclassified from Diversified to Pure Residential. You can read the latest blog on '*Resilience and Recovery: European Real Estate Developers Show Positive Signs in Challenging Times*'.

As of 31/10/2023, the benchmark lost 6.7% (m-o-m) and brought the YTD return to 6.3%. The benchmark now has 29 constituents from 12 different countries in Developed Europe (18 out of the UK) representing an aggregated full market cap of EUR 36,656 million (31/10/2023). A high-level computation can be found in the relevant section (page 5).

Highlights of the Month

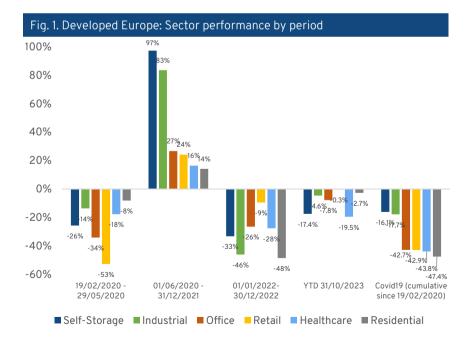
The ECB kept policy rate unchanged at the October meeting (now the main refinancing operations stands at 4.50%). Meanwhile, the eurozone inflation is expected to come down 2.9% from 4.3% (its peak was 10.6% last October), mainly due to decrease in energy prices but food price is still high. However, there is upside risks to inflation could come from higher energy and food costs, the heightened geopolitical tensions in the Middle East could drive up energy prices in the near term. The underlying macroeconomic and political pressures remain elevated which makes outlook more uncertain.

The markets saw another difficult month and the FEN Developed Europe index slipped 3.5% which brought YTD return to -6.8%, as end of October. Focusing on sector performance, all sectors returned negative which was limited for diversified (-2.5%) as top performer and the highest for lodging/resorts (-8.2%) as bottom performer. The European average LTV stands at 38.3% now, with the lowest in the UK and quite above the EU average in Germany, Italy and the Nordics.

The average P/D to NAV in Europe stood at -43.1%, the lowest for self-storage (-18.9%) and the highest for residential (-52.5%) and 5-year average stands at -22.1%.

FTSE EPRA Nareit Global Inde	ex Total F	Return				
			1	3	5	10
% Total Returns (EUR)	Oct-23	YTD	yr	yrs*	yrs*	yrs*
Global Real Estate 🔻	-4.6	-7.8	-11.2	4.3	0.9	4.8
Global Equities (FTSE)	-2.7	10.0	3.1	12.5	7.6	8.1
Global Bonds (JP Morgan)	-1.1	-3.7	-6.9	-5.9	1.0	1.7
Europe Real Estate	-3.5	-6.8	-5.9	-6.4	-5.1	2.0
Europe Equities (FTSE)	-3.4	5.6	10.2	11.0	6.3	6.0
Europe Bonds (JP Morgan)	0.3	0.7	-9.0	-5.1	-1.1	3.2
Asia Real Estate 🔻	-5.2	-12.7	-9.8	0.9	-0.8	1.9
Asia Equities (FTSE)	-3.4	7.9	6.7	8.7	7.7	9.1
Asia Bonds (JP Morgan) 🔻	-1.6	-0.6	-9.4	0.1	0.3	3.1
North America Real Estate	-4.5	-6.1	-12.5	8.5	2.9	6.9
North America Equities (FTSE)	-2.2	12.0	2.7	13.3	12.3	13.7
North America Bonds (JP Morgan) 🔻	-1.1	-1.1	-7.1	-2.7	1.4	3.2
Emerging Real Estate 🔻	-5.2	-11.6	1.5	-6.9	-3.9	1.1
Emerging Equities (FTSE)	-3.8	-0.3	4.1	1.2	4.3	4.8
Emerging Bonds (JP Morga 🔻	-1.4	0.9	0.0	-1.6	1.4	4.4
(*) Annualised						

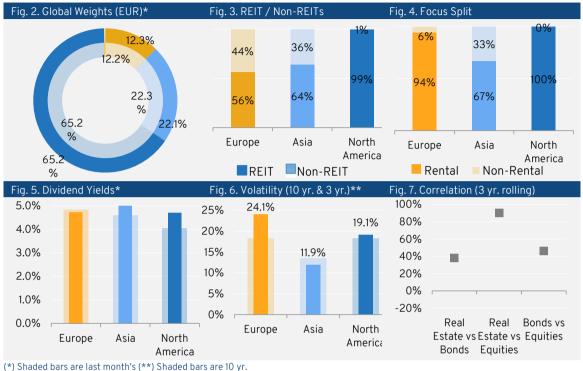
(*) Annualised.



Source: EPRA Research. Data is compiled from FEN Developed Europe sector index.

European Public Real Estate Association Square de Meeus, 23 1000 Brussels, Belgium T +32 (0) 2739 1010 F +32 (0) 2739 1020 W www.epra.com E info@epra.com





(*)	Shaded	bars are	last mont	:h's (**) Shac	ded bars	s are 10 yı	۲.
-----	--------	----------	-----------	----------	--------	----------	-------------	----

FTSE EPRA Nareit Developed Europe - Country Indices								
% Total Returns	Oct-23	YTD	1 yr	3 yrs*	5 yrs*	10 yrs*		
UK (GBP)	-3.8	-10.5	-9.1	-3.4	-4.5	0.5		
France (EUR)	-2.4	0.1	4.7	9.6	-3.0	1.7		
Netherlands (EUR)	-4.1	-2.5	-1.3	12.8	-16.0	-7.7		
Germany (EUR)	-4.7	2.1	-0.1	-19.6	-9.9	4.1		
Sweden (SEK)	-3.9	-14.1	-4.7	-7.2	0.8	10.0		
FTSE EPRA Nareit Asia	- Country In	dices						
Hong Kong (HKD)	-6.3	-26.5	-6.2	-4.6	-5.2	-0.9		
Japan (JPY)	-2.1	8.5	1.9	10.8	4.8	2.4		
Australia (AUD)	-6.6	-12.8	-11.3	2.7	-1.5	4.7		
Singapore (SGD)	-6.4	-10.1	-3.9	0.6	2.5	3.2		
South Korea (KRW)	-10.2	-22.1	-25.7	na	na	na		
FTSE EPRA Nareit Develo	ped North A	America -	Country Inc	dices				
United States (USD)	-4.5	-6.7	-6.3	5.1	1.6	4.4		
Canada (CAD)	-7.1	-11.9	-7.5	3.7	-0.2	3.9		

FTSE EPRA Nareit Developed Index – Top 10 Constituents							
Company	Sector	Country		Total Return			
ProLogis USA	Industrial	USA	▼	-10.2%			
Equinix Inc	Data Centers	USA		0.5%			
Welltower	Healthcare	USA		2.1%			
Public Storage, Inc.	Self-Storage	USA	\blacksquare	-9.4%			
Digital Realty Trust	Data Centers	USA		2.8%			
Simon Property Group, Inc.	Retail	USA		1.7%			
Realty Income Corp.	Retail	USA	\blacksquare	-4.6%			
Vici Properties Inc	Specialty	USA	▼	-4.1%			
AvalonBay Communities, Inc.	Residential	USA	▼	-3.5%			
Extra Space Storage	Self-Storage	USA	•	-14.8%			
FTSE EPRA Nareit Developed Index – To	p 10 Performers						
Company	Sector	Country		Total Return			
Intervest Offices & Warehouses NV	Ind /Office	RELC		16 1%			

FTSE EPRA Nareit Developed Index – Top 1	0 Performers			
Company	Sector	Country	Tot	al Return
Intervest Offices & Warehouses NV	Ind./Office	BELG		46.4%
COREM PROPERTY GROUP AB	Ind./Office	SWED		18.7%
Triple Point Social Housing REIT PLC	Residential	UK		8.0%
Aroundtown SA	Diversified	GER		7.9%
Spirit Realty Capital	Retail	USA		7.3%
Stride Property Group	Diversified	NZ		7.1%
The PRS REIT plc	Residential	UK		5.9%
Phillips Edison & Company	Retail	USA		5.6%
Inventrust Properties CORP	Retail	USA		5.4%
CareTrust REIT	Healthcare	USA		5.0%

Dev. Europe:Total Ret	urn	Weekly 1	Total Ret	urn by Se	ctor	YTD	Ukraine war	Covid-19
	Oct-23	6-Oct	13-Oct	20-Oct	27-Oct	Oct-23	23-Feb-22	19-Feb-20
Developed Europe	-3.5%	-1.7%	0.2%	-4.4%	-0.3%	-6.8%	-35.7%	-41.1%
Self-Storage	-3.3%	0.5%	-1.6%	-3.7%	-0.3%	-17.4%	-34.7%	-16.1%
Industrial	-2.6%	-0.8%	0.6%	-4.2%	-0.9%	-4.6%	-40.4%	-17.7%
Diversified	-2.5%	-0.9%	0.5%	-3.6%	-0.7%	-8.0%	-30.8%	-40.4%
Office	-4.8%	-2.9%	-0.1%	-3.5%	-1.1%	-7.8%	-26.1%	-42.7%
Retail	-2.8%	-3.0%	-1.1%	-2.6%	2.0%	-0.3%	-18.8%	-42.9%
Healthcare	-3.6%	-2.4%	-2.4%	-1.8%	-0.8%	-19.5%	-33.6%	-43.8%
Residential	-4.7%	-2.5%	0.9%	-7.4%	0.4%	-2.7%	-46.5%	-47.4%
Lodging/Resorts	-8.2%	-3.7%	-0.3%	-6.7%	0.3%	-9.7%	-28.7%	-54.3%

Source: EPRA Research. Data is compiled from the FEN Index series (as of October 31, 2023)



European equities lost 3.4% compared to a gain of 27 bps from European bonds. Germany (-4.7%), Netherlands (-4.1%), the UK (-3.8%), Sweden (-3.9%) and France (-2.4%) indexes returned negative in Asia: Japan (-2.1%), Both the US index (-4.5%) and Canada (-7.1%) indexes returned negative for the moth (in local currencies).

Following the disposal of the entire property portfolio held by South Korea (-10.2%) (in local currencies). Ediston Property Investment Company (UK, REIT, Retail), and its subsequent reclassification to an ineligible ICB (updated from 35102045 (Retail REITs) to 30205000 (Open End and Miscellaneous Investment Vehicles), the constituent was deleted from the index, in Developed Europe region.

Sector Performance: All sectors returned negative which was limited for diversified (-2.5%) as top performer, lodging/resorts (-8.2%), office (-4.8%), residential (-4.7%) were the bottom performers.

Performance of top 3 constituents: Intervest Offices & Warehouses NV (46.4%, Belgium, Industrial/office), Corem Property Group AB (18.7%, Sweden, Industrial/office), Triple Point Social Housing REIT plc (8.0%, UK, Residential).

Developed Europe representing a free float MCap of around EUR 158 hillion with 107 constituents

respectively.

Hong Kong (-6.3%), Singapore (-6.4%), Australia (-6.6%) and negative for the month (in local currencies).

No major corporate actions in Developed Asia region.

lower returns while lodging/resorts (-9.4%) industrial/office (-5.8%) were the bottom performers.

New Zealand, Diversified), LaSalle LOGIPORT REIT (3.4%, Inventrust Properties Corp. (5.4%, USA, Retail), Japan, Industrial;), Hulic Co. Ltd. (2.7%, Japan, Diversified).

FTSE EPRA Nareit North America Index

The FEN Developed Europe Index lost 3.5% during October. The FEN Developed Asia Index posted a negative 5.2% for a The FEN North America Index lost 4.5% for the month. North month. Asian equities and bonds also lost 3.4% and 1.6%, American equities (-2.2%) and bonds (-1.1%) also returned negative in October.

No major corporate actions in Developed North America region.

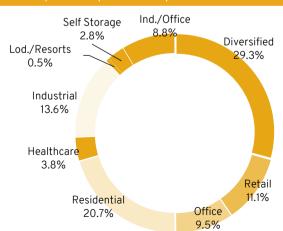
Sector Performance: All sectors returned negative except data Sector Performance: All sectors returned negative that retail (- centres (1.4%) as top performer. Meanwhile, Industrial/office 4.1%) and office (-4.3%) were top performers with relatively (-13.7%), self-storage (-11.1%) and office (-9.9%) were the bottom and performers.

Performance of top 3 constituents: Spirit Realty Capital (7.3%, Performance of top 3 constituents: Stride Property Group (7.1%, USA, Retail), Phillips Edison & Company (5.6%, USA, Retail),

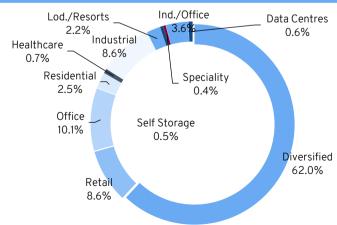
hillion with 134 constituents

Developed Asia representing a free float MCap of around EUR 285 Developed North America representing a free float MCap of around EUR 838 billion with 124 constituents

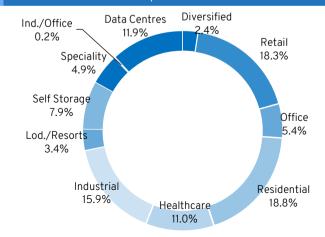
Developed Europe Sector Split



Developed Asia Sector Split



North America Sector Split



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

W www.epra.com E info@epra.com



Sharpe Ratio

EPRA Developers Research Benchmark 31 October 2023



Historical Performance	Last Month	1 Year	3 Years	5 Years
Total Return	-6.7%	8.0%	-1.7%	-8.5%
Total Return (Annualized)	-6.7%	8.0%	-0.6%	-1.7%

Return	3 Months	6 Months	Year to Date	5 Years
Total Return	-8.0%	-12.1%	6.3%	-8.5%
Maximum Return	3.4%	4.5%	4.7%	11.6%
Minimum Return	-3.7%	-4.2%	-5.4%	-13.1%
Mean Return (Annualized)	-34.7%	-27.4%	15.3%	4.7%
Maximum Drawdown	-11.5%	-16.7%	-16.7%	-55.2%
Maximum Drawdown Length	25	35	35	690

Risk	3 Months	6 Months	Year to Date	5 Years
Standard Deviation (Annualized)	23.3%	22.8%	23.9%	31.9%
Downside Risk (Annualized)	16.1%	15.9%	16.6%	22.4%
Kurtosis	0.12	0.94	1.36	6.18
Skewness	0.09	0.10	0.07	0.10
Semivariance (Annualized)	22.2%	22.3%	22.8%	31.4%
VaR (ex-post)	-2.38	-2.37	-2.35	-3.03
Risk-Adjusted Performance	3 Months	6 Months	Year to Date	5 Years

-1.29

-1.06

0.31

0.10

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 sub-indexes 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

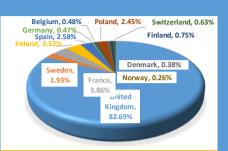


EPRA Developers Research Benchmark

31 October 2023

	0.0	0.0000.		
Constituent	ISIN	Weight	Country	Currency
BARRATT DEV	GB0000811801	14.65%	UK	GBp
BELLWAY PLC	GB0000904986	8.95%	UK	GBp
BERKELEY GROUP	GB00BLJNXL82	15.37%	UK	GBp
CREST NICHOLS	GB00B8VZXT93	1.43%	UK	GBp
HARWORTH GROUP P	GB00BYZJ7G42	0.69%	UK	GBp
MJ GLEESON PLC	GB00BRKD9Z53	0.75%	UK	GBp
PERSIMMON	GB0006825383	11.86%	UK	GBp
REDROW PLC	GB00BG11K365	5.59%	UK	GBp
TAYLOR WIMPEY PL	GB0008782301	14.38%	UK	GBp
VISTRY GROUP PLC	GB0001859296	8.73%	UK	GBp
WATKIN JONES PLC	GB00BD6RF223	0.30%	UK	GBp
ALTAREA	FR0000033219	0.94%	France	EUR
NEXITY	FR0010112524	1.80%	France	EUR
KAUFMAN & BROAD	FR0004007813	1.12%	France	EUR
METROVACESA SA	ES0105122024	1.06%	Spain	EUR
NEINOR HOMES SA	ES0105251005	1.04%	Spain	EUR
AEDAS HOMES SA	ES0105287009	0.49%	Spain	EUR
IMMOBEL	BE0003599108	0.47%	Belgium	EUR
INSTONE REAL EST	DE000A2NBX80	0.47%	Germany	EUR
GLENVEAGH PROPER	IE00BD6JX574	1.61%	Ireland	EUR
CAIRN HOMES	IE00BWY4ZF18	1.90%	Ireland	GBp
DEVELIA SA	PLLCCRP00017	1.57%	Poland	PLN
DOMDEV	PLDMDVL00012	0.87%	Poland	PLN
HUSCIET A/S	DK0061412855	0.38%	Denmark	DKK
YIT OYJ	FI0009800643	0.75%	Finland	EUR
CHAM GROUP AG	CH0001931853	0.63%	Switzerland	CHF
SELVAAG BOLIG AS	NO0010612450	0.26%	Norway	NOK
JM AB	SE0000806994	1.93%	Sweden	SEK
ATENOR	BE0003837540	0.15%	Belgium	EUR

Developers Sub-Indexes: Risk and Return	3 Months	6 Months	Year to Date	5 Years
Liquid Developers: Total Return	-8.01%	-12.57%	5.68%	-10.70%
Liquid Developers: Standard Deviation (Annualized)	25.37%	24.88%	25.39%	32.99%
Residential Developers: Total Return	-7.77%	-11.98%	6.55%	-9.77%
Residential Developers: Standard Deviation (Annualized)	24.17%	23.66%	24.27%	32.41%



Eligibility Criteria

EBITDA: ≥ 50% from Property Development **EBITDA:** ≥ 75% from Real Estate Activities

Size: > 0.30% of the Benchmark size and Minimum of EUR 150 Million in FFMC

Liquidity: ≥ 0.05% of their (FF) shares in issue based on their median daily trading volume per month

Reporting: public AR in English (Full set of audited FS, notes and Mgt Report)

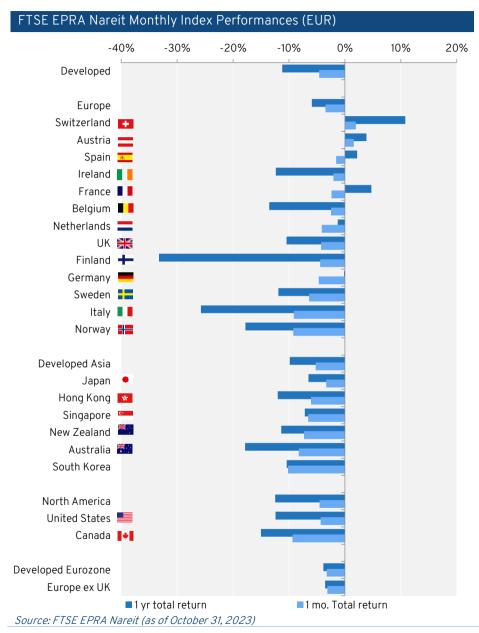
Geography: ≥ 75% EBITDA from Developed countries

Assets: ≥ 50% of Total Tangible Assets invested in RE. No Holding structures.

Eligible Markets: Premium and main trading segments of official stock exchanges.

Data Availabilty: Monthly computations. Perfomance figures available on this report. Raw data accessible on demand at research@epra.com





Link to Reports & Contacts

Monthly Statistical Bulletin Monthly Published NAV Bulletin Monthly LTV Report

Visit our website to read our reports: Monthly Reports

To read articles on the: <u>Bloq</u> Index Ground Rules <u>Version 11.6</u> <u>Property Portfolio Analysis (end of 2022)</u>

Emerging Markets 2023
Sector Analysis: Office (Aug-21)
Total Markets Table 2023-Q3
(quarterly)



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

David Moreno, CFA Indexes Manager d.moreno@epra.com

Iskren Marinov Analyst Indices & Research i.marinov@epra.com

Giovanni Curatolo Junior Analyst Indices & Research <u>q.curatolo@epra.com</u>

EPRA INSEAD Executive Education Programme

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. The fourth edition will be June 18-20, 2024 at INSEAD Fontainebleau campus.

EPRA Bayes Business School Online Programme, 2023 Edition: Understanding the REIT price (16 Oct-24 Nov)

An online programme dedicated to understanding the listed real estate market, the third edition will start in October 2023.

For more information about the Education programmes, contact: education@epra.com.















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.