



EPRA

EUROPEAN PUBLIC
REAL ESTATE ASSOCIATION

ANNUAL MARKET REVIEW

Annual Market Review and Developers' Research Benchmark

December
2023

December Overview

During December 2023, the FTSE EPRA Nareit (FEN) Global Developed Real Estate Index gained 8.3%, global bonds and equities also returned 3.0% and 2.4%, respectively. Meanwhile, the FEN Emerging Index posted 2.6% monthly return, and emerging equities and bonds also gained 2.0% and 3.2%, respectively.

Focusing on regional and sector performances, all regions posted positive monthly returns: Europe (10.6%) Asia (5.9%) and North America (8.6%). Self-storage (19.0%), office (12.2%), industrial (11.9%) and industrial/office (11.3%) were top performers and the remaining sectors returned positive for a month, except data centres (-2.6%), as the bottom performer. The annual performance overview is given in the '2023 Performance: Global Overview' section.

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. The benchmark gained 10.3% in December and brought annual return to 34.1%. The benchmark now has a total of 29 constituents from 12 different countries in Developed Europe (18 out of the UK) and an aggregated full market cap of EUR 46,501 million (29/12/2023). A high-level computation can be found in the relevant section (page 12).

2023 Highlights

The shifting macroeconomics and elevated geopolitical pressures remained as the main concerns during 2023. Apart from the ongoing war in Ukraine, the heightened geopolitical tensions in the Middle East put additional pressures and increased the uncertainty for outlook.

The ECB launched the most aggressive series of policy rate hike in decades, amounting a total of 450 bps increase compared to 175 bps increase during the GFC (2006-2008) within the same period (12 to 15 months) (Fig.1). The ECB raised the refinancing rate to 4.5% at September meeting and kept unchanged at the last meeting of the year in December. The Eurozone inflation is in a decreasing trend, came down from its peak of 10.6% in October 2022 to 2.4% in November 2023 and it is expected to be 2.9% in December. It created an expectation of cut in interest rate as early as in the first quarter of 2024. However, the ECB is still cautious on inflation and monetary tightening strategy remains uncertain. Although inflation has dropped in recent months, it is likely to pick up again temporarily in the near term. The ECB expects headline inflation to come down to 2.7% in 2024, 2.1% in 2025 and 1.9% in 2026.

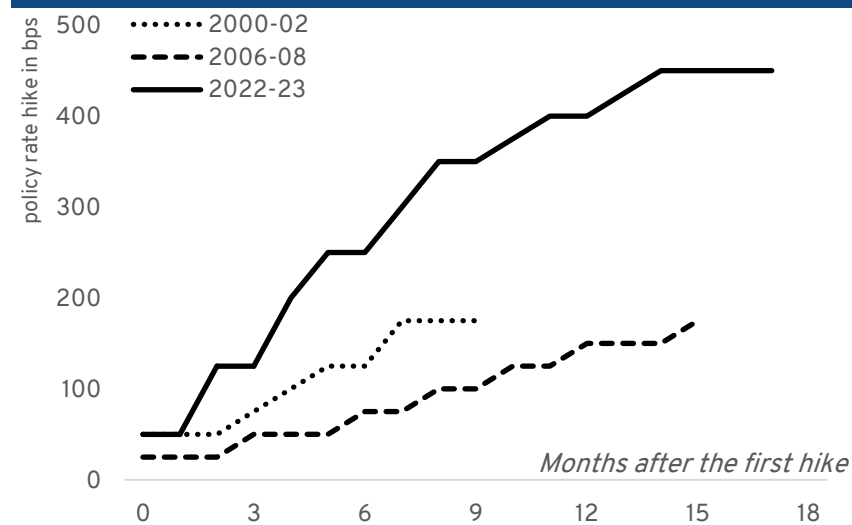
European listed real estate companies have concerns on increasing financing costs, but they have healthier balance sheets compared to the GFC and Eurozone debt crisis, thanks to favourable financial metrics, such as historically lower leverage levels (39%), higher proportion of fixed-interest-rate debt (around 83.5%), longer debt maturities (roughly 34% of the debt issued by European LRE companies is set to mature within the 2024 to 2026). It provides some comfort to companies adjusting to a new macro-economic environment until policy rates stabilise around the 3% mark within a few year. You can read EPRA's special report [Reshaping debt profiles: Comprehensive analysis of European LRE](#)

FTSE EPRA Nareit Global Index Total Return

| % Total Returns (EUR) | Dec-23 | 1 yr | 3 yrs* | 5 yrs* | 10 yrs* |
|----------------------------------|--------|------|--------|--------|---------|
| Global Real Estate | ▲ 8.3 | 7.1 | 5.7 | 4.5 | 6.9 |
| Global Equities (FTSE) | ▲ 2.4 | 18.2 | 11.5 | 10.5 | 8.5 |
| Global Bonds (JP Morgan) | ▲ 3.0 | 0.6 | -3.7 | 1.5 | 2.2 |
| Europe Real Estate | ▲ 10.6 | 17.4 | -4.1 | 0.6 | 4.4 |
| Europe Equities (FTSE) | ▲ 3.3 | 15.6 | 8.5 | 9.6 | 6.8 |
| Europe Bonds (JP Morgan) | ▲ 2.3 | 3.0 | -3.0 | -0.7 | 3.6 |
| Asia Real Estate | ▲ 5.9 | -4.0 | 0.8 | 0.3 | 3.3 |
| Asia Equities (FTSE) | ▲ 0.7 | 11.2 | 6.7 | 9.3 | 9.1 |
| Asia Bonds (JP Morgan) | ▼ -0.5 | -1.5 | 1.4 | 0.0 | 3.2 |
| North America Real Estate | ▲ 8.6 | 9.2 | 10.3 | 7.1 | 9.2 |
| NA Equities (FTSE) | ▲ 3.0 | 22.4 | 13.0 | 16.3 | 14.2 |
| NA Bonds (JP Morgan) | ▲ 1.7 | 1.0 | -0.4 | 1.4 | 3.8 |
| Emerging Real Estate | ▲ 2.6 | -5.4 | -6.3 | -4.0 | 3.0 |
| Emerging Equities (FTSE) | ▲ 2.0 | 5.6 | 0.1 | 5.5 | 5.9 |
| Emerging Bonds (JP Morgan) | ▲ 3.2 | 6.9 | 0.2 | 2.6 | 5.4 |

(* Annualised.

Fig. 1. Europe : Historical interest rate hikes



Source: EPRA Research. Compiled from ECB (as of 29/12/2023).

Sector Performance : Developed Europe

First half of the year was challenging, but the FEN Developed Europe’s sector indices gained momentum benefitting from good performance of the last two months and all sectors posted positive annual returns, except healthcare (-3.0%) as the bottom performer. Meanwhile lodging/resorts (31.8%), residential (24.9%), retail (21.6%), industrial/office (21.4%) and industrial (20.5%) were top performers (Fig. 2). Based on cumulative returns (since 19/02/2020), self-storage (8.1%) and industrial (3.9%) are the only sectors to be traded above their pre-crisis level (Table 1).

Focusing on P/D to NAV figures, the European average is standing at -35.0% (was -44.3% last year) and at -22.7% for 5-year average, as end of December. All sectors are still trading with discount which is limited for self-storage (-10.0%) and industrial (-10.9%). In terms of 5-year average, self-storage (29.2%), healthcare (16.5%) and industrial (9.8%) are trading above the 5-year average levels (Fig. 3).

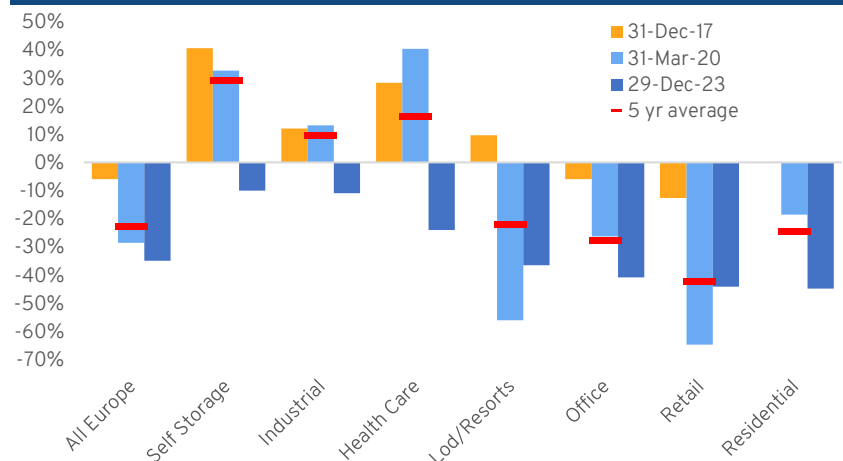
Capital raising in Europe

The listed real estate companies in Europe raised EUR 10.4 billion (EUR 6.7 bln debt and EUR 3.7 bln equity) in new fresh capital during 2023. The average LTV in Europe stands at 39% with the lowest in the UK (31%) and the highest in Norway (53%), as end of December.

The constituents of the FEN Developed Europe index issued a total of EUR 1.7 billion of green bonds in 2023 and total amount reached to EUR 35.2 billion since 2013 (Fig. 4).

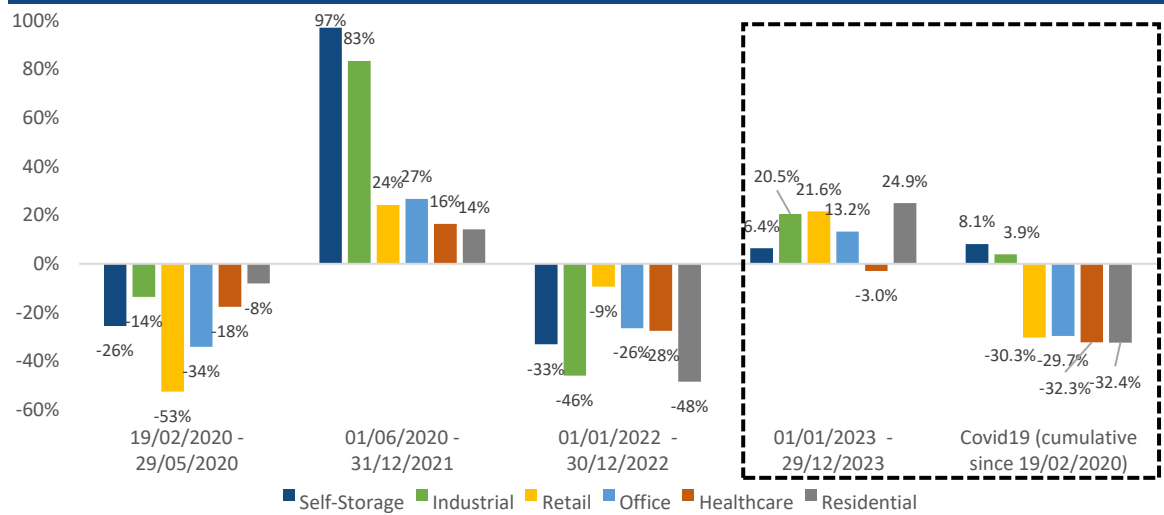
You can also read a special report on [‘Estimating a green premium in LRE bonds’](#).

Fig. 3. Developed Europe: Discount to NAV by Sector



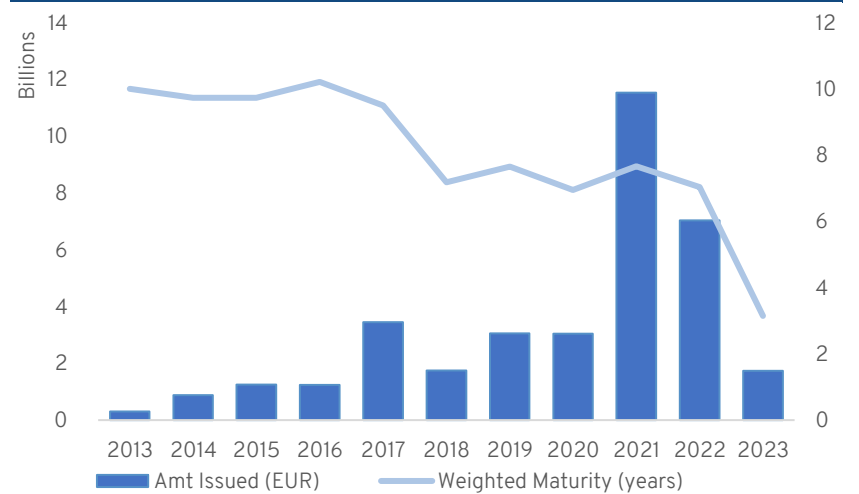
Source: EPRA. (*) Starting from March 2021, the aggregated PD is computed using the simple average of the new 3 EPRA NAV metrics (NRV, NTA, NRV), the average has been retrospectively applied since 2020, depending on the companies information availability.

Fig. 2. Developed Europe: Sector performance by period (cumulative total returns)



Source: EPRA Research. Data is compiled from the FEN Index (as of 29/12/2023)

Fig. 4. Developed Europe: Green Bonds (EUR billion) Green bond



Source: EPRA LTV Monitor. Data is compiled from S&P, Bloomberg (as of 29/12/2023).

2023 Performance: Global overview

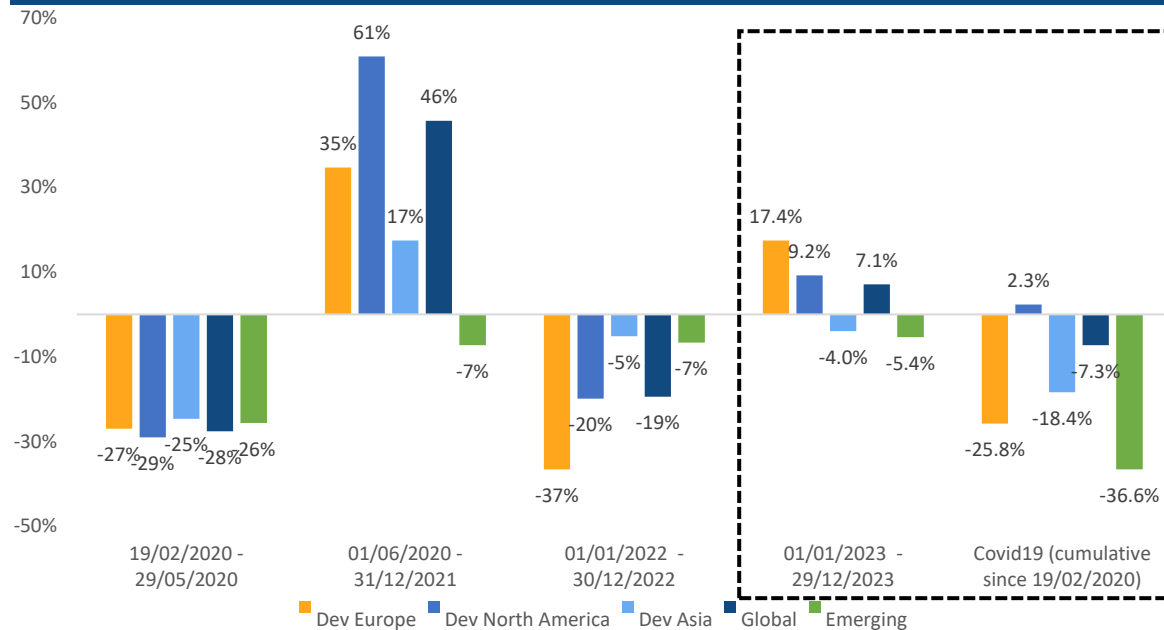
The FEN Global Developed Real Estate index posted an annual return of 7.1%. Global equities (18.2%) showed better performance compared to global bonds posting limited but still positive annual return (60 bps). Annualised ten-year rolling returns for real estate investments stand at 6.9%, while general equities posted an 8.5% return and bonds gained 2.2% during the same period.

In terms of regional performance, Europe (17.4%) and North America (9.2%) gained positive annual returns compared to a loss from Asia index (-4.0%). Only North America (2.3%) is performing above its pre-pandemic level (Fig.5 and 6).

Focusing on annual performance by sectors, data centres (25.5%) was outperformer followed by lodging/resorts (15.9%), self-storage (13.3%), industrial (12.3%) and industrial/office (12.1%). Office (-1.7%) and diversified (-81 bps) were the bottom performers while the remaining sectors posted positive annual returns.

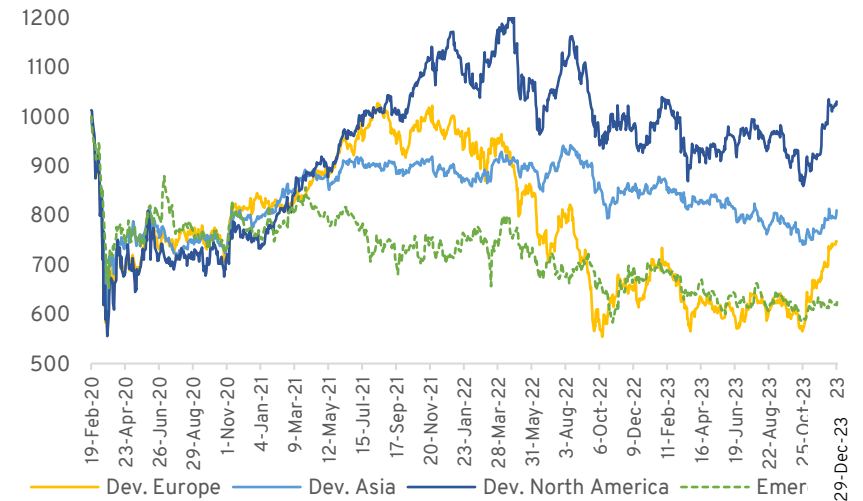
At the end of December 2023, the FEN Developed Index counted a total of 369 constituents, representing a free float market capitalisation of around EUR 1,5 trillion.

Fig. 5. Global Developed Regional Performance by period (cumulative total returns)



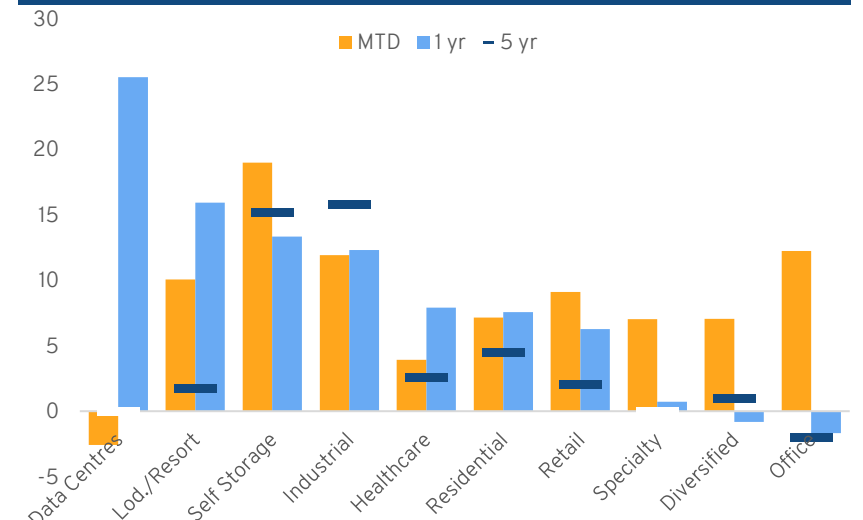
Source: EPRA Research. Data is compiled from the FEN Index (as of 29/12/2023).

Fig. 6. Total return by region: (31/12/2019=1000)



Source: EPRA Research. Data is compiled from the FEN Index (as of 29/12/2023).

Fig. 7. Global Developed: Total return by sector



Source: EPRA (as of 29/12/2023). (*) Annualised.

Major Corporate Actions in the FEN Developed Index in 2023

- *Store Capital REIT* (USA, constituent) was deleted from the index, following the completion of the acquisition by GIC and Oak Street (non-constituents) –February, 3.
- *Neobo Fastigheter* (Sweden, constituent) was deleted from the index, following the listing and commencement of trading on the ineligible Nasdaq First North Premier Growth Market - Feb, 15.
- *Summit Industrial Income REIT* (Canada, constituent) was deleted from the index, following the completion of the acquisition by GIC and Dream Industrial REIT -February, 17.
- *Home REIT* (UK) was deleted from the index, following prolonged share suspension -March, 2.
- *Shaftesbury* (UK) was deleted from the index, after a merger with Capital&Countries Properties (UK, renamed as Shaftesbury Capital) -March, 6.
- *Unibail Rodamco Westfield* remained in the index with an updated nationality of France, due to the voluntary delisting from Euronext Amsterdam and the concurrent reassignment of a FTSE nationality of France from Netherlands -April, 28.
- *Civitas Social Housing* (UK, constituent) was deleted from the index, following the cash offer by Wellness Unity Limited (non-constituent), being declared unconditional and the expected cancellation of trading -July, 11.
- *Life Storage* (USA, constituent) was deleted from the index, after the completion of the merger with Extra Space Storage (USA, constituent), July, 24.
- *CT Property Trust* (UK, constituent) was deleted from the index, after a merger with LondonMetric Property (UK, REIT, Rental) – August, 7.
- *Abacus Storage King* (Australia) was added to the index, following approval to the de-stapling from Abacus Property Group (Australia) -August, 1.
- *Regency Centers* (USA) remained in the index, after the completion of the merger with Urstadt Biddle Pptys (USA, non-constituent) – August, 22.
- *The Necessity Retail REIT Inc* (USA, constituent) was deleted from the index, after the completion of the merger with Global Net Lease (USA, constituent) -September, 12.
- *Ediston Property Investment Company* (UK, REIT, Retail) was deleted from the index, following the disposal of the entire property portfolio and its subsequent reclassification to an ineligible ICB (updated from 35102045 (Retail REITs) to 30205000 (Open End and Miscellaneous Investment Vehicles) – October, 6.
- *Net Lease Office Properties* (USA) was added to the index, after the completion of the demerger from W. P. Carey Inc. (USA, constituent) – November, 2.
- *Kenedix Retail REIT* (Japan, constituent) and *Kenedix Residential REIT* (Japan, constituent) were deleted from the index, after a merger with Kenedix Office Investment Corp. – October. 31.

FTSE EPRA Nareit Developed Index – Top 10 Constituents*

| Company | Sector | Country | Total Return |
|-----------------------------|--------------|---------|--------------|
| ProLogis USA | Industrial | USA | 21.3% |
| Equinix Inc | Data Centers | USA | 25.2% |
| Welltower | Healthcare | USA | 41.3% |
| Public Storage, Inc. | Self-Storage | USA | 16.8% |
| Simon Property Group, Inc. | Retail | USA | 27.8% |
| Realty Income Corp. | Retail | USA | -4.3% |
| Digital Realty Trust | Data Centers | USA | 39.1% |
| Extra Space Storage | Self-Storage | USA | 13.3% |
| Vici Properties Inc | Specialty | USA | 3.4% |
| AvalonBay Communities, Inc. | Residential | USA | 20.0% |

FTSE EPRA Nareit Developed Index – Top 10 Performers*

| Company | Sector | Country | Total Return |
|----------------------------------|-------------|---------|--------------|
| TAG Immobilien-AG | Residential | GER | 118.3% |
| Tanger Inc | Retail | USA | 59.9% |
| Lar Espana Real Estate SOCIMI SA | Retail | SP | 49.1% |
| Fastighets AB Balder | Diversified | SWED | 47.6% |
| HULIC CO LTD | Diversified | JA | 46.6% |
| Chartwell Retirement Residences | Healthcare | CAN | 46.1% |
| Boardwalk REIT | Residential | CAN | 46.1% |
| SL Green Realty Corp. | Office | USA | 45.9% |
| Empire State Realty Trust | Office | USA | 45.9% |
| Mitsui Fudosan Co., Ltd. | Diversified | JA | 45.8% |

* Annual returns

Fig. 8 Global Weights (EUR)*

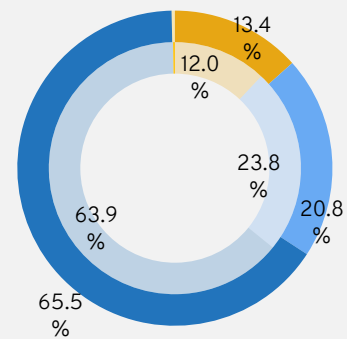


Fig. 9. REIT / Non-REITs

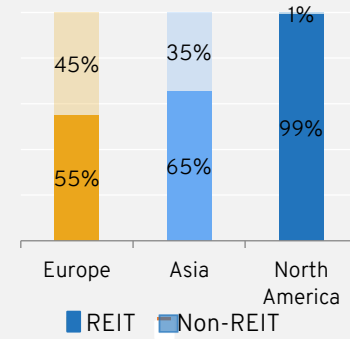


Fig. 10. Focus Split

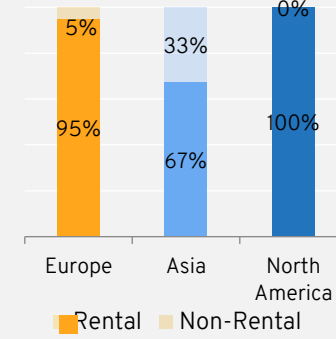


Fig. 11. Dividend Yields*

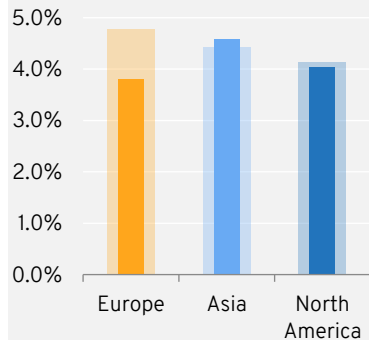


Fig. 12. Volatility (10 yr. & 3 yr.)**

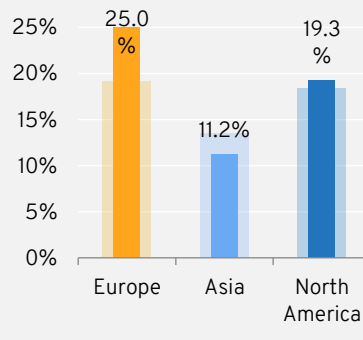


Fig. 13. Correlation (3 yr. rolling)

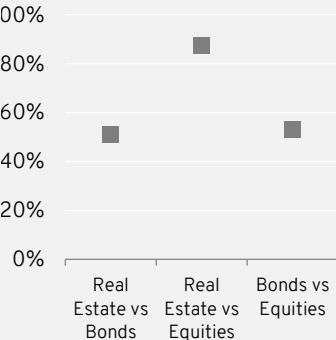


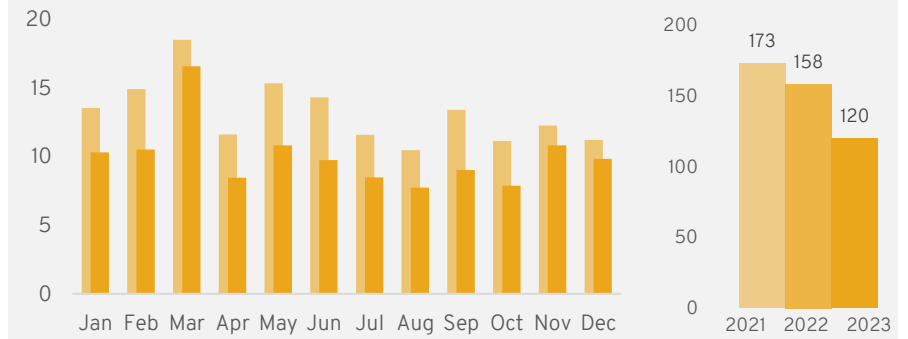
Table 1. Developed Europe Return by Sector (%)*

| Dev. Europe: Monthly Total Return | Monthly Returns | | | | | | | | | | | | Annual | Ukraine war | Covid-19 |
|-----------------------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|----------|
| | Jan-23 | Feb-23 | Mar-23 | Apr-23 | May-23 | Jun-23 | Jul-23 | Aug-23 | Sep-23 | Oct-23 | Nov-23 | Dec-23 | | | |
| Dev. Europe | 8.9% | -1.1% | -11.4% | 5.8% | -7.3% | -1.3% | 9.2% | -0.9% | -3.5% | -3.5% | 13.9% | 10.6% | 17.4% | -19.0% | -25.8% |
| Self-Storage | 6.7% | 1.9% | -4.3% | 4.9% | -4.6% | -6.7% | 3.1% | -0.5% | -14.2% | -3.3% | 13.7% | 13.2% | 6.4% | -15.9% | 8.1% |
| Industrial | 9.7% | -0.5% | -5.9% | 7.7% | -3.3% | -8.1% | 7.0% | -1.1% | -5.8% | -2.6% | 15.1% | 9.8% | 20.5% | -24.7% | 3.9% |
| Diversified | 6.1% | -0.2% | -9.2% | 4.8% | -9.7% | -1.2% | 9.4% | -1.0% | -3.1% | -2.5% | 12.4% | 10.3% | 14.1% | -14.2% | -26.1% |
| Office | 10.6% | -0.5% | -11.0% | 3.9% | -5.6% | -0.8% | 6.6% | -2.5% | -2.1% | -4.8% | 11.2% | 10.4% | 13.2% | -9.3% | -29.7% |
| Retail | 9.8% | 2.4% | -11.1% | 3.9% | -7.5% | 5.4% | 7.0% | -1.5% | -4.0% | -2.8% | 12.4% | 8.5% | 21.6% | -1.0% | -30.3% |
| Healthcare | 4.1% | -2.6% | -6.5% | 4.1% | -7.3% | -3.7% | 4.3% | -1.2% | -8.0% | -3.6% | 10.7% | 8.9% | -3.0% | -20.0% | -32.3% |
| -sidential | 12.6% | -5.2% | -20.8% | -4.5% | -7.1% | 2.0% | 14.7% | 1.4% | -0.2% | -4.7% | 16.4% | 10.2% | 24.9% | -31.3% | -32.4% |
| Lodging/Resorts | 20.7% | 1.3% | -10.3% | 9.9% | -10.7% | 10.9% | 0.4% | -4.2% | -1.3% | -8.2% | 20.2% | 21.4% | 31.8% | 4.0% | -33.3% |

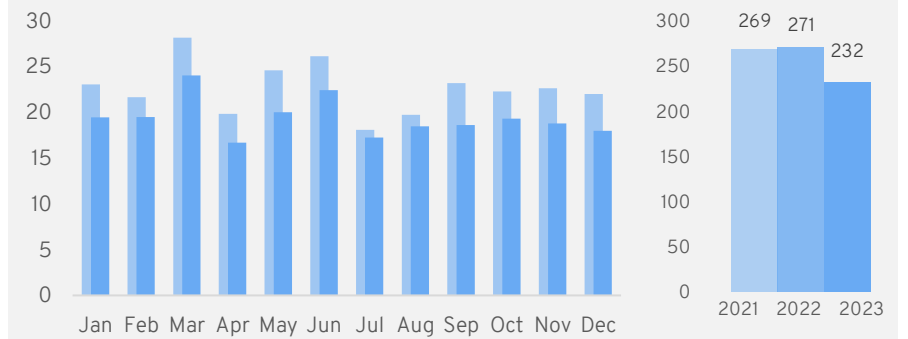
(* Shaded bars are last year's (** Shaded bars are 10 yr.

(***) Data is compiled from the FEN Index series (as of 29 December 2023).

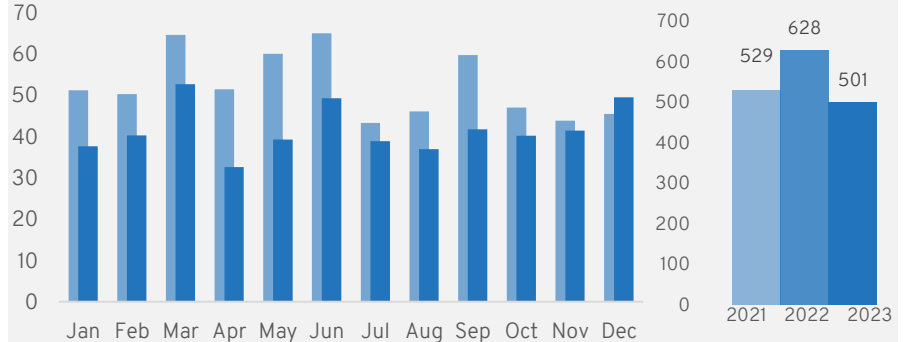
Fig. 14 (a) TSE EPRA/Nareit Developed Europe Turnover*



(b) FTSE EPRA/Nareit Developed Asia Turnover



(c) FTSE EPRA/Nareit Developed North America Turnover



(* All in EUR billion (Shaded bars 2022).

FTSE EPRA Nareit Developed Europe Index

During December 2023, the FEN Developed Europe Index gained 10.6%, and Europe equities and bonds also posted monthly returns of 3.3% and 2.3%, respectively. Over a one-year period, Europe real estate index returned 17.4% gaining momentum with good performance of the last two months. European equities (15.6%) and European bonds (3.0%) also posted positive annual returns.

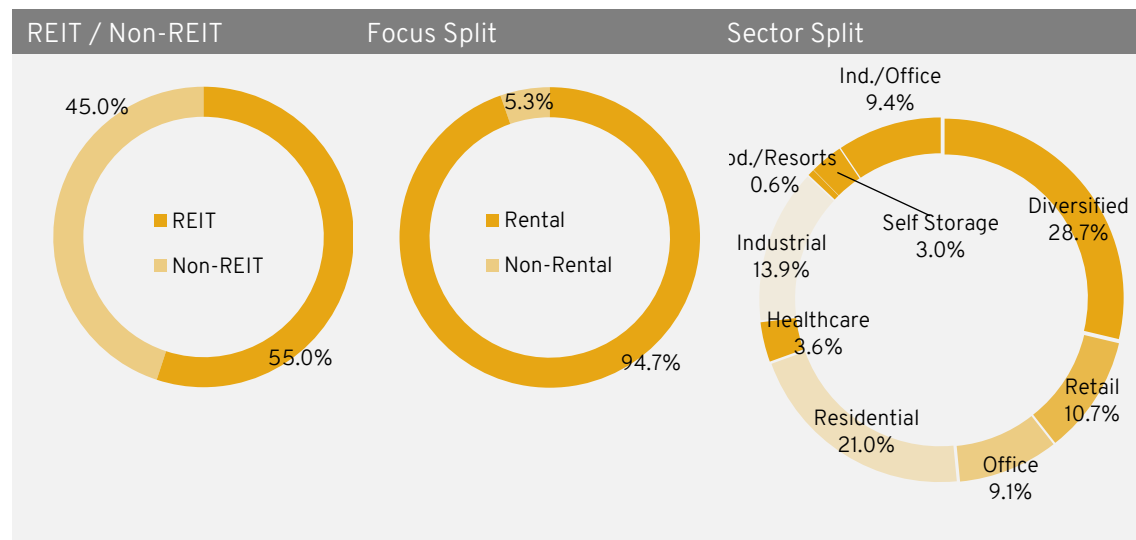
Based on cumulative returns (since 19/02/2020), the FEN Developed Europe index is still performing below its pre-Covid19 level with -25.8% cumulative return.

Annual country performances Germany (32.0%), Austria (30.1%), France (22.9%) and Spain (20.4%) were the top performers. The remaining country indexes also returned positive which were Sweden (19.6%), the UK (10.7%), Belgium (5.2%) and Netherlands (4.5%), except Finland (-10.5%) and Italy (-17.4%) as the bottom performers in Developed Europe region.

Annual sector performances Lodging/resorts (31.8%) was outperformer followed by residential (24.9%), retail (21.6%), industrial/office (21.4%) and industrial (20.5%). The remaining sectors also returned positive, except healthcare (-3.0%) as the bottom performer.

2023-Q4 Index Review : There were no additions or deletions in Europe index.

Developed Europe representing a free float MCap of around EUR 199 billion with 107 constituents, as of 29/12/2023.



FTSE EPRA Nareit Developed Europe - Country Indices

| % Total Returns | Dec-23 | 1 yr | 3 yrs* | 5 yrs* | 10 yrs* |
|--------------------|--------|------|--------|--------|---------|
| Europe (EUR) | 10.6 | 17.4 | -4.1 | 0.6 | 4.4 |
| Europe ex UK (EUR) | 11.2 | 19.5 | -5.6 | 0.0 | 5.4 |
| UK (GBP) | 9.8 | 10.7 | -0.9 | 1.3 | 2.7 |
| France (EUR) | 9.8 | 22.9 | 5.2 | 3.3 | 3.8 |
| Netherlands (EUR) | 1.7 | 4.5 | -3.4 | -12.1 | -6.8 |
| Germany (EUR) | 11.5 | 32.0 | -15.6 | -4.7 | 7.2 |
| Sweden (SEK) | 16.4 | 19.6 | -1.0 | 7.4 | 13.4 |

(* Annualised.

FTSE EPRA Nareit Developed Europe – Top 5 Performers*

| Company | Sector | Country | Total Return |
|----------------------------------|-------------|---------|--------------|
| TAG Immobilien-AG | Residential | GER | 118.3% |
| Lar Espana Real Estate SOCIMI SA | Retail | SP | 49.1% |
| Fastighets AB Balder | Diversified | SWED | 47.6% |
| VGP NV | Industrial | BELG | 38.5% |
| Atrium Ljungberg AB | Diversified | SWED | 38.5% |

FTSE EPRA Nareit Developed Europe – Bottom 5 Performers*

| Company | Sector | Country | Total Return |
|--------------------------------|-------------|---------|--------------|
| SBB Norden AB | Diversified | SWED | -67.5% |
| Phoenix Spree Deutschland Ltd. | Residential | UK | -31.0% |
| CLS Holdings Plc | Office | UK | -30.8% |
| Regional REIT Ltd. | Office | UK | -30.7% |
| Helical plc. | Office | UK | -30.1% |

* Annual returns

FTSE EPRA Nareit Developed Asia Index

The FEN Developed Asia Index returned 5.9% while Asia equities gained 70 bps compared to a loss of 51 bps from Asia bonds, during December. Asia real estate index lost 4.0% compared to a gain of 11.2% from Asia equities and a loss of 1.5% from Asia bonds, on annual basis.

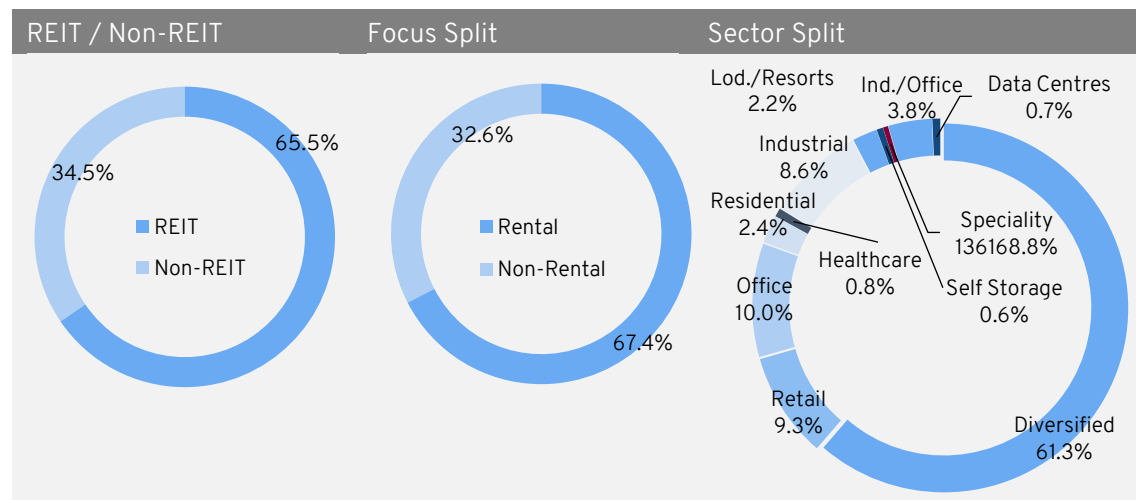
Based on cumulative returns (since 19/02/2020), the FEN Developed Asia index is still performing below its pre-Covid19 level with -18.4% cumulative return.

Annual country performance Japan (11.1%), Australia (6.5%) and Singapore (3.1%) were the top performers while Hong Kong (-19.7%), South Korea (-15.9%) posted negative annual returns as bottom performers – *in local currencies*.

Annual sector performances Industrial/office (4.5%) was the top performer as the only sector returned positive., while office (-8.8%) and industrial (-8.3%) were the bottom performers in Asia region.

2023-Q4 Index Review : There were no additions or deletions in Asia index.

Developed Asia representing a free float MCap of over EUR 310 billion with 134 constituents, as of 29/12/2023.



FTSE EPRA Nareit Asia - Country Indices

| % Total Returns | Dec-23 | 1 yr | 3 yrs* | 5 yrs* | 10 yrs* |
|-------------------|--------|-------|--------|--------|---------|
| Asia (EUR) | 5.9 | -4.0 | 0.8 | 0.3 | 3.3 |
| Hong Kong (HKD) | 8.84 | -19.7 | -5.7 | -5.3 | 0.4 |
| Japan (JPY) | -1.2 | 11.1 | 7.7 | 5.3 | 1.7 |
| Australia (AUD) | 10.3 | 6.5 | 3.8 | 2.0 | 7.3 |
| Singapore (SGD) | 8.0 | 3.1 | 0.7 | 4.8 | 5.2 |
| South Korea (KRW) | 0.4 | -15.9 | n.a | n.a | n.a |

(* Annualised.

FTSE EPRA Nareit Developed Asia – Top 5 Performers*

| Company | Sector | Country | Total Return |
|------------------------------|-------------|---------|--------------|
| HULIC CO LTD | Diversified | JA | 46.6% |
| Mitsui Fudosan Co., Ltd. | Diversified | JA | 45.8% |
| Tokyo Tatemono Co., Ltd. | Diversified | JA | 36.8% |
| Sumitomo Realty & Dev Co Ltd | Diversified | JA | 36.2% |
| Nomura Real Estate Holdings | Diversified | JA | 35.7% |

FTSE EPRA Nareit Developed Asia – Bottom 5 Performers*

| Company | Sector | Country | Total Return |
|--------------------------------|-------------|---------|--------------|
| Wharf Real Estate Investment | Diversified | HK | -39.2% |
| Hysan Development Company Ltd. | Diversified | HK | -33.0% |
| New World Development Co. Ltd. | Diversified | HK | -32.1% |
| Cromwell Property Group | Diversified | AU | -30.9% |
| Sunlight REIT | Diversified | HK | -28.8% |

* Annual returns

FTSE EPRA Nareit North America Index

The FEN North America Index returned 8.6%, and North America equities and bonds also posted positive monthly returns of 3.0% and 1.7%, respectively, in December. On annual basis, North America real estate index gained 9.2%, while North America equities and bonds returned 22.4% and 98 bps, respectively.

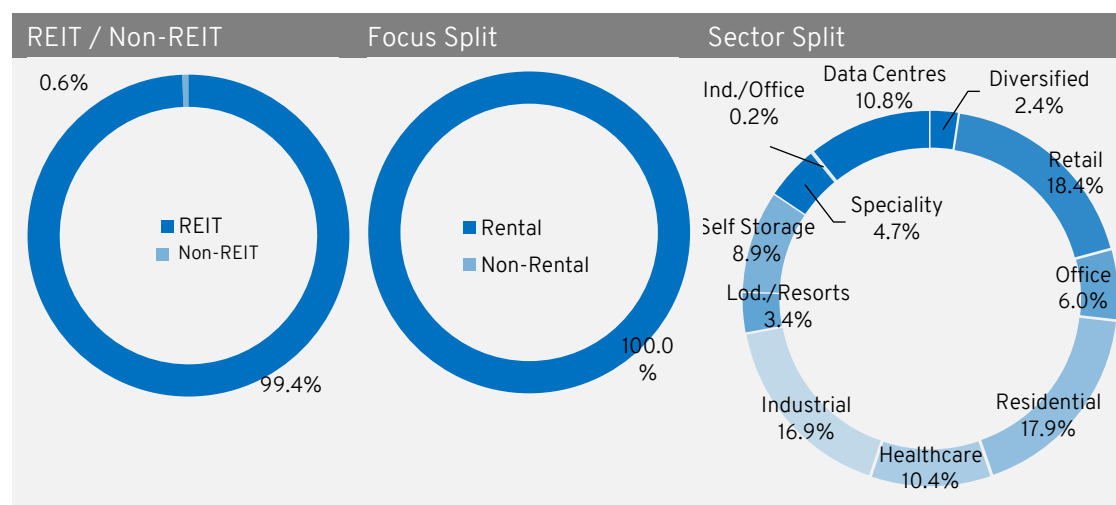
Based on cumulative returns (since 19/02/2020), the FEN Developed North America index is performing above its pre-Covid19 level with 2.3% cumulative return, which is the only region returned to pre-Covid19 level.

Annual country performance Over a one-year period, the U.S. Index and the Canada Index posted annual returns of 13.3% and 4.5%, respectively - *in local currencies*.

Annual sector performances: Data centres (25.7%), lodging/resorts (21.0%) and industrial (15.0%) were the top performers, while industrial/office (-13.7%) and office (-1.1%) were the bottom performers. The remaining sectors posted positive annual returns in North America region.

2022-Q4 Index Review There were no additions or deletions in North America index.

Developed North America representing a free float MCap of around EUR 974 billion with 125 constituents as of 29/12/2023.



FTSE EPRA Nareit Developed North America - Country Indices

| % Total Return | Dec-23 | 1 yr | 3 yrs* | 5 yrs* | 10 yrs* |
|---------------------|--------|------|--------|--------|---------|
| North America (USD) | 10.0 | 13.0 | 6.6 | 6.4 | 6.8 |
| United States (USD) | 9.9 | 13.3 | 6.7 | 6.4 | 7.0 |
| Canada (CAD) | 9.2 | 4.5 | 4.8 | 3.6 | 5.6 |

(* Annualised).

FTSE EPRA Nareit Developed North America - Top 5 Performers*

| Company | Sector | Country | Total Return |
|---------------------------------|-------------|---------|--------------|
| Tanger Inc | Retail | USA | 59.9% |
| Chartwell Retirement Residences | Healthcare | CAN | 46.1% |
| Boardwalk REIT | Residential | CAN | 46.1% |
| SL Green Realty Corp. | Office | USA | 45.9% |
| Empire State Realty Trust | Office | USA | 45.9% |

FTSE EPRA Nareit Developed North America - Bottom 5 Performers*

| Company | Sector | Country | Total Return |
|--------------------------------------|-------------|---------|--------------|
| Medical Properties Trust | Healthcare | USA | -48.0% |
| Northwest Healthcare Properties REIT | Healthcare | CAN | -40.2% |
| Community Healthcare Trust, Inc. | Healthcare | USA | -20.5% |
| Nexpoint Residential Trust | Residential | USA | -16.9% |
| Healthpeak Properties Inc | Healthcare | USA | -16.2% |

* Annual returns

FTSE EPRA Nareit Emerging Index

During December 2023, the FEN Emerging Index gained 2.6%, resulting in a negative annual return of 5.4%. Meanwhile, emerging equities and bonds returned 2.0% and 3.2% for the month, respectively. As a result, annual return stands at 5.6% for equities and 6.9% for bonds. Based on cumulative returns (since 19/02/2020), the FEN Emerging index is still performing quite below its pre-Covid19 level with -36.6% cumulative return.

You can read EPRA's special report: [Emerging Markets Reports – 2023 Edition](#).

Annual country performance: Brazil (60.8%) Mexico (59.1%) and India (53.1%) were outperformers followed by Czechia (44.1%) and UAE (29.9%). Meanwhile, Turkey (-39.2%), China (-37.0%), South Africa (-13.1%), Saudi Arabia (-4.0%), Thailand (-2.6%), Philippines (-2.1%) and Malaysia (-35 bps) were bottom performers and the remaining country indexes posted positive annual returns in the emerging index.

Annual sector performances: Industrial (48.1%) was outperformer followed by retail (24.7%) and healthcare (10.5%) and the remaining sectors returned negative which data centres (-57.3%), residential (-21.5%), and lodging/resorts (-11.5%) were the bottom performers in the emerging index.

2023-Q4 Index Review: There was one deletion in the emerging index. *Hyprop Investment* (South Africa) was deleted from the emerging index.

At the end of December 2023, the [FEN Emerging Index](#) counted a total of 126 constituents, representing a free float market capitalisation of around EUR 122 billion.

FTSE EPRA Nareit Emerging - Country Indices

| % Total Returns | Dec-23 | 1 yr | 3 yrs* | 5 yrs* | 10 yrs* |
|-------------------------|--------|-------|--------|--------|---------|
| Emerging (EUR) | 2.6 | -5.4 | -5.4 | -6.3 | -4.0 |
| Emerging EMEA (EUR) | 2.5 | 2.6 | 2.6 | 12.1 | -1.9 |
| Emerging Europe (EUR) | -0.6 | 0.5 | 0.5 | 7.3 | 17.9 |
| Emerging MEA (EUR) | 3.1 | 2.7 | 2.7 | 13.7 | -3.3 |
| Emerging APAC (EUR) | 0.7 | -17.1 | -17.1 | -13.8 | -7.9 |
| Emerging Americas (EUR) | 9.4 | 54.4 | 54.4 | 17.7 | 10.2 |

(*) Annualised.

FTSE EPRA Nareit Emerging – Top 10 Constituents

| Company | Sector | Country | Total Return |
|---------------------------------------|-------------|---------|--------------|
| China Resources Land Ltd | Diversified | CHN | -21.1% |
| China Overseas Land & Investment Ltd. | Diversified | CHN | -29.6% |
| Central Pattana Public Company Ltd. | Diversified | THAI | 0.2% |
| SM Prime Holdings | Diversified | PHIL | -6.7% |
| DLF | Diversified | IDA | 94.8% |
| ALDAR PROPERTIES PJSC | Diversified | UAE | 24.4% |
| Fibra Uno Administracion S.A. de C.V. | Diversified | MEX | 44.7% |
| Ayala Land | Diversified | PHIL | 13.1% |
| Embassy Office Parks REIT | Office | IDA | 3.1% |
| Corporacion Inmobiliaria Vesta | Industrial | MEX | 45.2% |

FTSE EPRA Nareit Emerging – Top 10 Performers

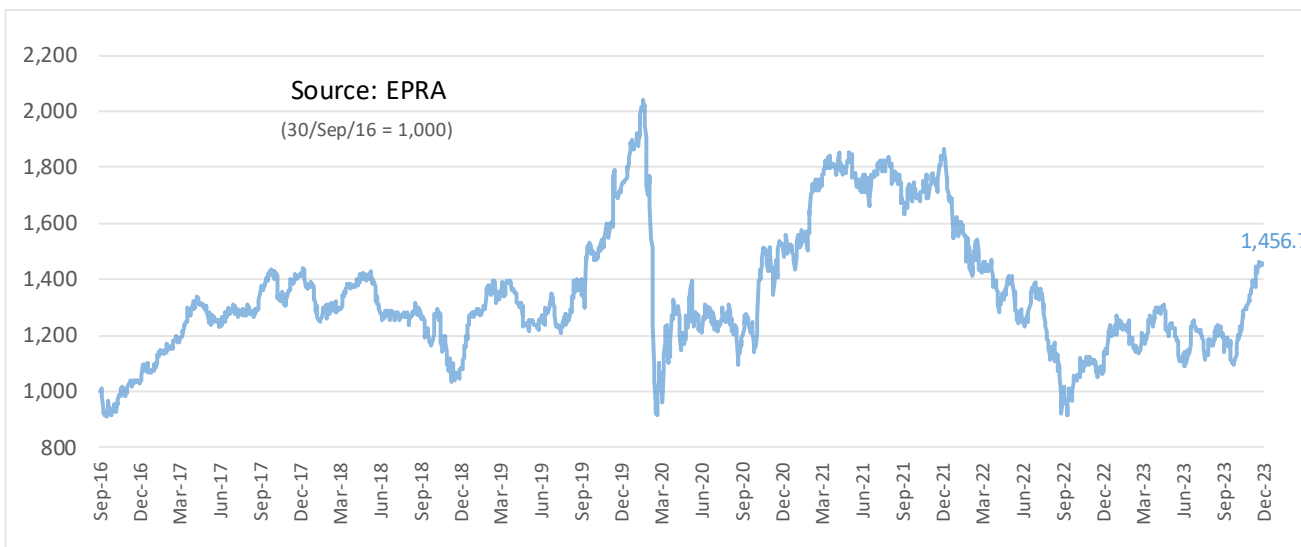
| Company | Sector | Country | Total Return |
|---|-------------|---------|--------------|
| Construtora Tenda SA | Residential | BRAZ | 251.4% |
| Prestige Estates | Residential | IDA | 154.6% |
| Moura Dubeux Engenharia SA | Residential | BRAZ | 129.4% |
| DLF | Diversified | IDA | 94.8% |
| Brigade Enterprises | Diversified | IDA | 93.3% |
| Cyrela Brazil Realty SA | Residential | BRAZ | 90.7% |
| Empreendimentos e Participacoes Mitre Realty Empreendimentos e Participacoes SA | Residential | BRAZ | 90.6% |
| Even Construtora e Incorporadora | Residential | BRAZ | 90.0% |
| Macrotech Developers | Diversified | IDA | 87.9% |
| Helbor Empreendimentos S.A. | Diversified | BRAZ | 77.5% |

FTSE EPRA Nareit Emerging – Bottom 10 Performers

| Company | Sector | Country | Total Return |
|--------------------------------------|--------------|---------|--------------|
| Country Garden Holdings | Residential | CHN | -70.8% |
| Agile Property Holdings | Diversified | CHN | -63.2% |
| Sino-Ocean Group Holdings (Red Chip) | Residential | CHN | -59.6% |
| GDS Holdings | Data Centers | CHN | -55.8% |
| Gemdale Properties and Investment | Diversified | CHN | -55.1% |
| Powerlong Real Estate Holdings | Diversified | CHN | -53.5% |
| China Vanke Co., Ltd (H) | Residential | CHN | -49.6% |
| Midea Real Estate Holding (P Chip) | Diversified | CHN | -48.8% |
| Cosmopolitan International Holdings | Diversified | CHN | -45.4% |
| Longfor Group Holdings (P Chip) | Diversified | CHN | -45.0% |

EPRA Developers Research Benchmark

Friday, 29 December 2023



| Historical Performance | Last Month | 1 Year | 3 Years | 5 Years |
|---------------------------|------------|--------|---------|---------|
| Total Return | 10.3% | 34.1% | -4.8% | 33.4% |
| Total Return (Annualized) | 10.3% | 34.1% | -1.6% | 6.7% |

| Return | 3 Months | 6 Months | Year to Date | 5 Years |
|--------------------------|----------|----------|--------------|---------|
| Total Return | 20.3% | 31.5% | 36.9% | 33.4% |
| Maximum Return | 4.9% | 4.9% | 4.9% | 11.6% |
| Minimum Return | -3.7% | -3.7% | -5.4% | -13.2% |
| Mean Return (Annualized) | 193.9% | 123.3% | 61.8% | 16.2% |
| Maximum Drawdown | -8.3% | -12.6% | -16.7% | -55.3% |
| Maximum Drawdown Length | 10 | 65 | 35 | 690 |

| Risk | 3 Months | 6 Months | Year to Date | 5 Years |
|---------------------------------|----------|----------|--------------|---------|
| Standard Deviation (Annualized) | 24.9% | 24.1% | 23.9% | 31.5% |
| Downside Risk (Annualized) | 17.2% | 16.1% | 16.4% | 22.1% |
| Kurtosis | 0.80 | 0.89 | 1.45 | 6.46 |
| Skewness | 0.26 | 0.37 | 0.17 | 0.12 |
| Semivariance (Annualized) | 24.7% | 22.6% | 22.4% | 31.0% |
| VaR (ex-post) | -2.09 | -2.05 | -2.29 | -2.98 |

| Risk-Adjusted Performance | 3 Months | 6 Months | Year to Date | 5 Years |
|---------------------------|----------|----------|--------------|---------|
| Sharpe Ratio | 4.51 | 3.07 | 1.58 | 0.35 |

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

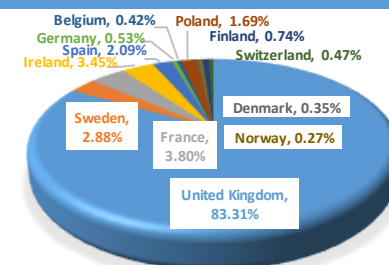
Review Dates: April, October

EPRA Developers Research Benchmark

Friday, 29 December 2023

| Constituent | ISIN | Weight | Country | Currency |
|------------------|--------------|--------|-------------|----------|
| BARRATT DEV | GB0000811801 | 15.48% | UK | GBp |
| TAYLOR WIMPEY PL | GB0008782301 | 14.41% | UK | GBp |
| BERKELEY GROUP | GB00BLJNXL82 | 13.62% | UK | GBp |
| PERSIMMON | GB0006825383 | 12.43% | UK | GBp |
| VISTRY GROUP PLC | GB0001859296 | 9.61% | UK | GBp |
| BELLWAY PLC | GB0000904986 | 9.22% | UK | GBp |
| REDROW PLC | GB00BG11K365 | 5.34% | UK | GBp |
| CREST NICHOLS | GB00B8VZXT93 | 1.57% | UK | GBp |
| HARWORTH GROUP P | GB00BYZJ7G42 | 0.65% | UK | GBp |
| MJ GLEESON PLC | GB00BRKD9Z53 | 0.63% | UK | GBp |
| WATKIN JONES PLC | GB00BD6RF223 | 0.36% | UK | GBp |
| NEXITY | FR0010112524 | 1.72% | France | EUR |
| ALTAREA | FR0000033219 | 0.98% | France | EUR |
| KAUFMAN & BROAD | FR0004007813 | 1.11% | France | EUR |
| NEINOR HOMES SA | ES0105251005 | 0.82% | Spain | EUR |
| METROVACESA SA | ES0105122024 | 0.82% | Spain | EUR |
| AEDAS HOMES SA | ES0105287009 | 0.45% | Spain | EUR |
| IMMOBEL | BE0003599108 | 0.32% | Belgium | EUR |
| ATENOR | BE0003837540 | 0.10% | Belgium | EUR |
| GLENVEAGH PROPER | IE00BD6JX574 | 1.71% | Ireland | EUR |
| CAIRN HOMES | IE00BWY4ZF18 | 1.73% | Ireland | GBp |
| DEVELIA SA | PLCCRP00017 | 1.04% | Poland | PLN |
| DOMDEV | PLDMDVL00012 | 0.64% | Poland | PLN |
| HUSCIET A/S | DK0061412855 | 0.35% | Denmark | DKK |
| YIT OYJ | FI0009800643 | 0.74% | Finland | EUR |
| INSTONE REAL EST | DE000A2NBX80 | 0.53% | Germany | EUR |
| SELVAAG BOLIG AS | NO0010612450 | 0.27% | Norway | NOK |
| JM AB | SE0000806994 | 2.88% | Sweden | SEK |
| CHAM GROUP AG | CH0001931853 | 0.47% | Switzerland | CHF |

| Developers Sub-Indexes: Risk and Return | 3 Months | 6 Months | Year to Date | 5 Years |
|---|----------|----------|--------------|---------|
| Liquid Developers: Total Return | 21.38% | 34.69% | 38.08% | 32.63% |
| Liquid Developers: Standard Deviation (Annualized) | 26.47% | 25.98% | 25.38% | 32.64% |
| Residential Developers: Total Return | 20.69% | 33.15% | 38.04% | 32.61% |
| Residential Developers: Standard Deviation (Annualized) | 25.39% | 24.76% | 24.28% | 32.06% |



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 FFM

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)

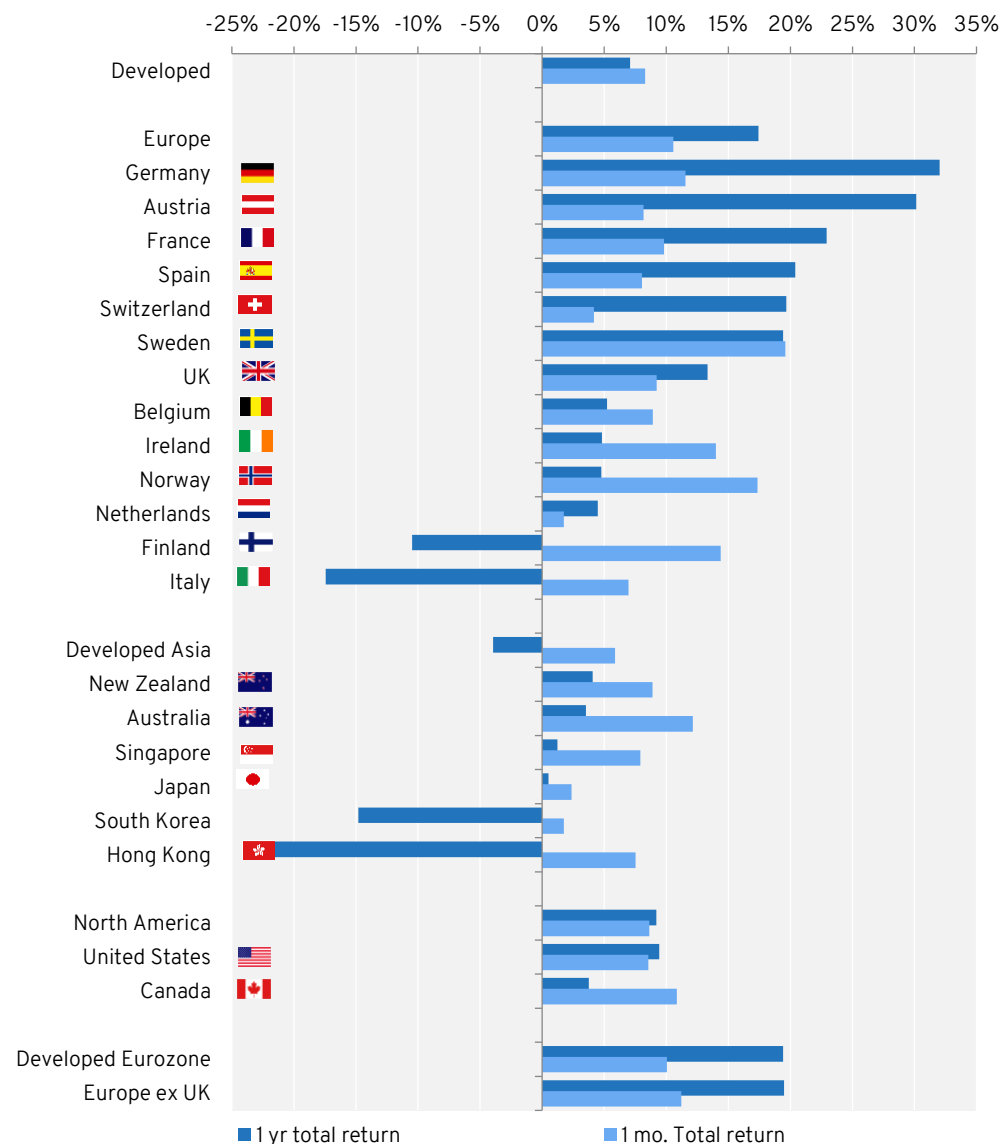
Geography: ≥ 75% EBITDA from Developed
countries

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

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

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

FTSE EPRA Nareit Monthly Index Performances (EUR)



Link to Reports

Monthly Statistical Bulletin
 Monthly Published NAV Bulletin
 Monthly LTV Report
 Visit our website to read our reports: [Monthly Reports](#)
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 Index Ground Rules [Version 11.7](#)
[Property Portfolio Analysis \(end of 2022\)](#)
[Emerging Markets 2023](#)
[Total Markets Table 2023-Q3 \(quarterly\)](#)
[EPRA's latest research report Reshaping debt profiles: Comprehensive analysis of European LRE \(December 2023\)](#)



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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.

EPRA Bayes Business School Online Programme, Understanding the REIT price

An online programme dedicated to understanding the listed real estate market, the 4th edition will be in Autumn 2024.

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



EPRA Research Webinar Series (January 23 and February 28)

We are pleased to host three webinars for the EPRA Research Webinar Series dedicated to research papers under EPRA Academic Research Programme 2023. Follow our updates under this [link](#).

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Source : FTSE EPRA Nareit as of December 29, 2023