

Features and trends in European listed real estate

November 2020

AUTHOR

Ali Zaidi

Director, Research & Indexes,
European Public Real Estate
Association - EPRA

+32 2 739 10 19

a.zaidi@epra.com

CO-AUTHOR

Sergiy Lesyk

Director, Research and
Analytics, FTSE Russell

+44(0)207 8668082

slesyk@ftserussell.com

Overview

The European commercial real estate is estimated to represent some EUR 7.27 trillion of assets. While still small compared to the US and Asia, it has been undergoing significant changes in recent years.

Studies show that when comparing the long-term returns of listed and unlisted real estate vehicles based on the same underlying assets, the listed sector is an effective proxy for direct property investment. However, listed real estate (LRE) has the benefit of higher transparency, diversification, unmatched liquidity and a lower hurdle to global access compared to direct property.

- New segments of real estate are emerging, reflecting changes in the economy; as a result, some traditional segments of real estate can now become available to a wider investor base via LRE vehicles.
- Listed and unlisted real estate vehicles can be complementary in a real estate portfolio due to the unique investment access to certain segments of real estate through specific vehicles and the possibility of tactical variation of real estate allocation through LRE vehicles.
- The COVID-19 crisis has had a different impact on each sector of real estate, having accelerated some trends and created new challenges and opportunities. It remains to be seen if these changes are transient or more permanent in nature.

Contents

The European commercial real estate market—size and characteristics	4
Europe is catching up with the rest of the world	4
REITs and non-REITs—evolution and characteristics	6
Relationship between returns of LRE, direct real estate and equity market	7
Complementary features of direct and LRE	10
Property investment benchmarking and diversification	10
Latest trends in LRE performance—emergent sectors	12
Data centers	13
E-commerce	14
Demographic trends	15
High Growth Sectors in Europe	17
COVID-19 impact on the LRE market	18
Summary	21
References	22

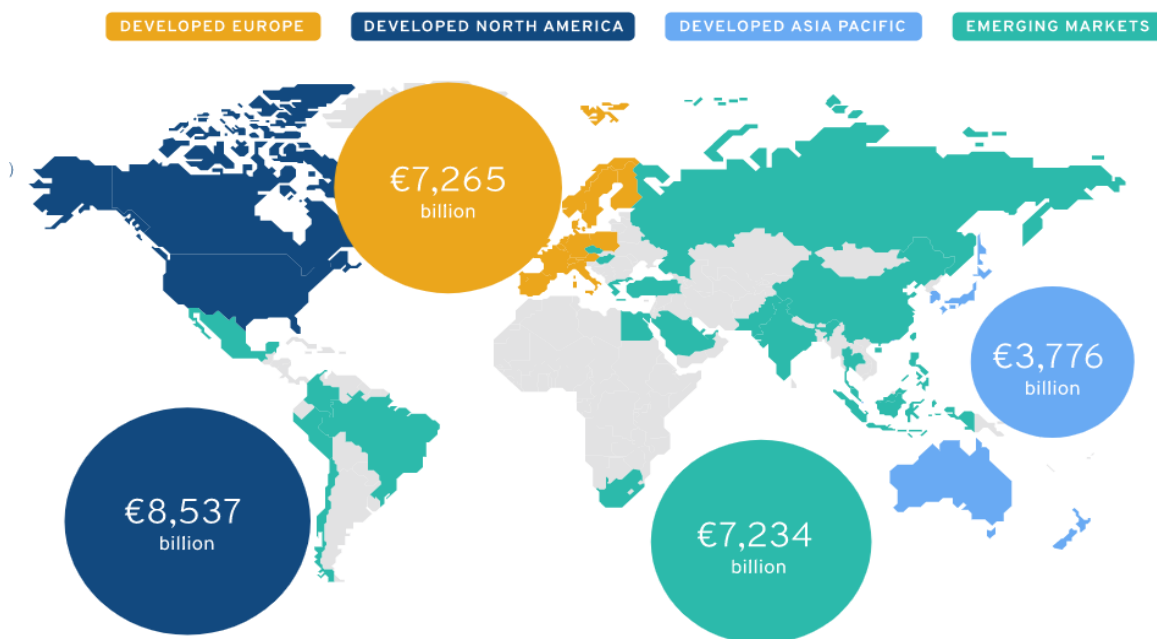
Executive summary

- Property investment—traditionally the most familiar asset class for investors—is accessed through a variety of channels, ranging from direct investment to leveraged derivatives tied to specific asset values. In this report, we focus on listed equity for European real estate.
- Looking at the long-term returns and given the same underlying assets, the listed sector is an effective proxy for direct property investment, but with added transparency, diversification, unmatched liquidity and a lower hurdle to global access. LRE allows investors to optimize by adapting sector tilts, currency exposure and geographical weights, all in a cost-effective way.
- The listed sector is influenced by a wider stakeholder group compared to other real estate vehicles. Through its public disclosure requirements, investors and analysts can scrutinize all aspects at a company level, ranging from management efficiency, transaction multiples to capital strategy.
- In some jurisdictions, dedicated listed property companies, focused on owning and operating property across a range of sectors, may opt for Real Estate Investment Trust (REIT) status, which typically provides tax advantages and commits the company to paying out a larger share of its income in dividends. Some European real estate companies (referred to as non-REITs) operate without formally adopting the REIT-status as the income pay-out may be more flexible, or because of other restrictions REIT legislation may impose on REITs, or due to the absence of REIT legislation in the country.
- COVID-19 is expected to have varying impacts on the different sector of commercial property. For example, the pandemic accelerated some trends, such as online shopping, further depressing retail real estate. It may also create opportunities, where real estate valuations have decreased temporarily or real estate may be repurposed, creating value for investors.
- The European listed sector has evolved significantly since the last property cycle, which started after the Global Financial Crisis, with the introduction of new sectors, REIT regimes and deleveraging. Property investments through the listed market represent a cost-efficient and dynamic method of investing in commercial real estates, traditionally only accessible with high entry capital hurdle.

The European commercial real estate market – size and characteristics

The European commercial real estate is estimated to represent some EUR 7.27 trillion on an unlevered basis¹ of assets, of which 5.58% is investable through the listed market (listed commercial real estate). This compares to EUR 26.82 trillion and 10.55% on global scale, respectively. The listed market in Asia and North America represents a larger proportion of the underlying commercial real estate market. The US is the largest and most advanced by a considerable margin. It benefits from having a single fiscal jurisdiction, a high number of sector-focused REITs, high quality assets, and a larger proportion of high-growth alternative property.

Figure 1. Global Commercial Real Estate Market



Source: EPRA Nareit, data as of December 31, 2019. Please see the end for important legal disclosures.

Europe is catching up with the rest of the world

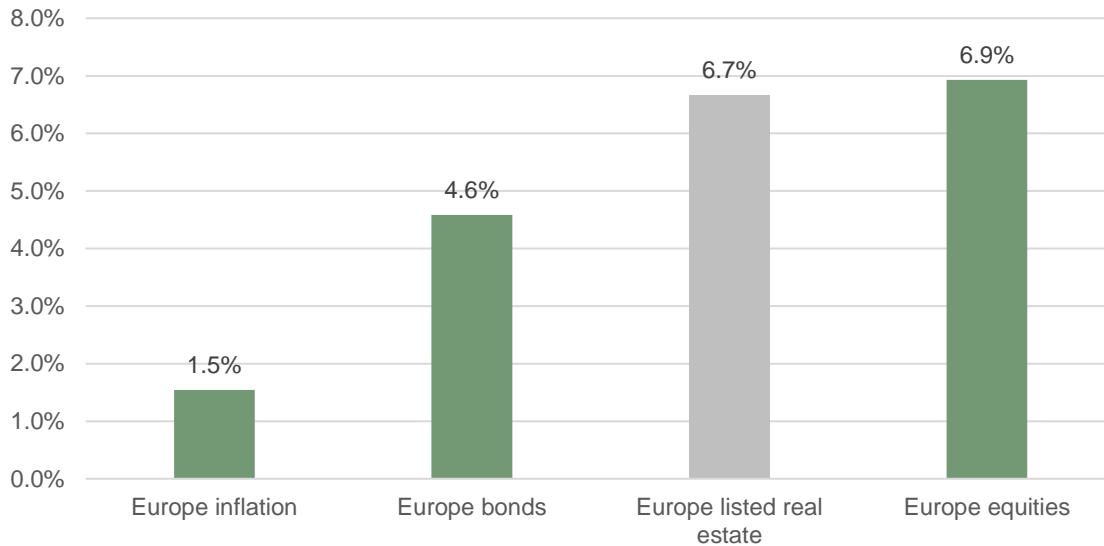
However, the European listed sector has evolved considerably in recent years, with new entrant real estate companies obtaining REIT status. The FTSE EPRA Nareit Developed Europe Index covers 13 markets and nine property sectors. Non-traditional, or emergent property, sectors such as Health care and Self-Storage have been growing strongly—a trend that is expected to continue. In addition, the Solvency II regulation, which had limited the inflow from European insurance companies, was amended on June 8, 2019 to lower the reserve requirement for listed property. The reduction from 39% to 22% (for the largest pool of capital in Europe) is expected to drive new inflows into the sector.

The combination of a relatively strong, long-term performance compared to other European assets (Figure 2) and moderate long-term correlation with financial sector stocks (Figure 3) has

¹ Typically, real estate is purchased with a financial leverage and the actual property price combines equity and debt investment, which is presented in this paper.

meant that LRE will have its separate classification in the FTSE Russell's Industry Classification Benchmark (ICB) from Q1 2021².

Figure 2. Comparison of annualized returns with inflation, local currency



Source: FTSE Russell, EPRA Nareit, annualized data from January 1, 2004 to December 31, 2019. Past performance is no guarantee to future results. Please see the end for important legal disclosures.

Figure 3. Annual trailing daily return correlations of the FTSE EPRA Nareit Developed and FTSE Developed Financial Services Indexes



Source: FTSE Russell, daily data from January 1, 2010 to October 13, 2020. Past performance is no guarantee to future results. Please see the end for important legal disclosures.

² FTSE Russell. Industry Classification Benchmark (ICB) reclassification. Expanded and improved. December 2019. https://content.ftserussell.com/sites/default/files/research/Industry%20Classification%20Benchmark%20reclassification-expanded%20and%20improved%20FINAL%2002242020.pdf?_ga=2.85152155.343579838.1601225539-129253194.1593962703

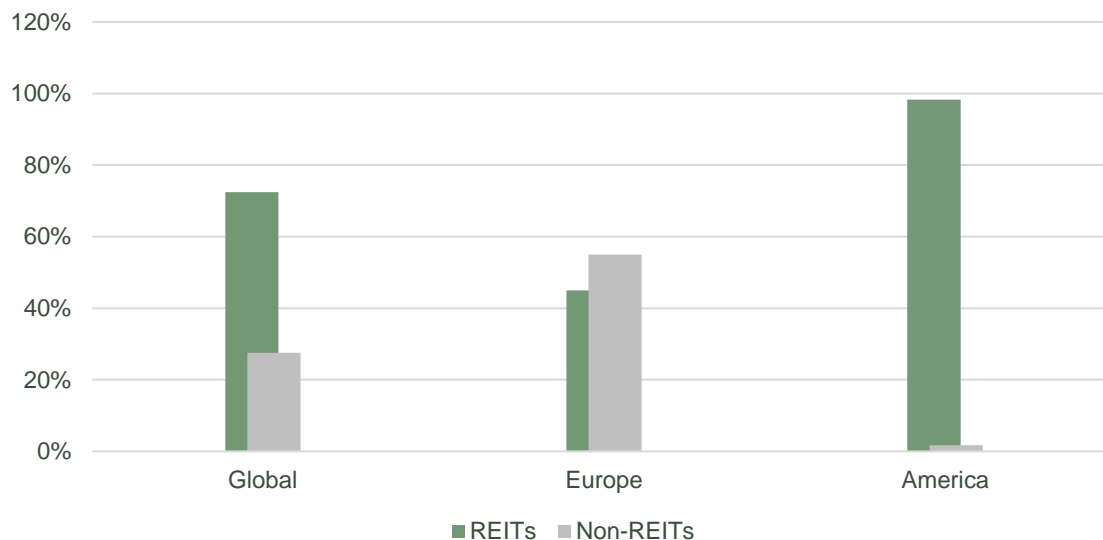
REITs and non-REITs—evolution and characteristics

Listed real estate companies can be divided into two groups: REITs and the rest, non-REITs. REITs are companies that own and operate real estate, satisfy certain local characteristics and legal requirements and elect to obtain the status thereof. The first real estate investment trusts (REITs) were created in 1960 by an act of US Congress to allow investors access to commercial property. Since then, 36 REIT regimes³ have been introduced that are regulated on a country level. A wider participation in this important sector is stimulated through corporate tax-exemption. REIT rules can vary from country to country, but there are core characteristics that are consistent across markets:

- A high pay-out ratio—on average 90% of taxable income must be paid out in dividends
- Dividends taxed at the entity level—withholding taxes
- Dedicated to real estate—75% of assets must be invested in property
- Free float—limit of concentrated holdings—regulated through a variety of frameworks depending on the market

Globally, there are 827 REITs, representing a total market capitalization of EUR 1.4 trillion, or 54% of the total LRE market. The rest are non-REIT LRE companies. Not all LRE companies qualify for the FTSE EPRA Nareit Index selection criteria, however, so the proportion of REITs in the FTSE EPRA Nareit Global index is higher at 72.1%.

Figure 4. REIT and non-REIT weights in the global index (%)



Source: FTSE Russell. Data as of December 31, 2019. Please see the end for important legal disclosures.

Today, the proportion of REITs in the total European LRE is lower than in the US and globally. With its longer history, the REIT structure is more familiar in the US and has grown to include several emergent sectors, like data centers, specialized storage and cell towers. By contrast,

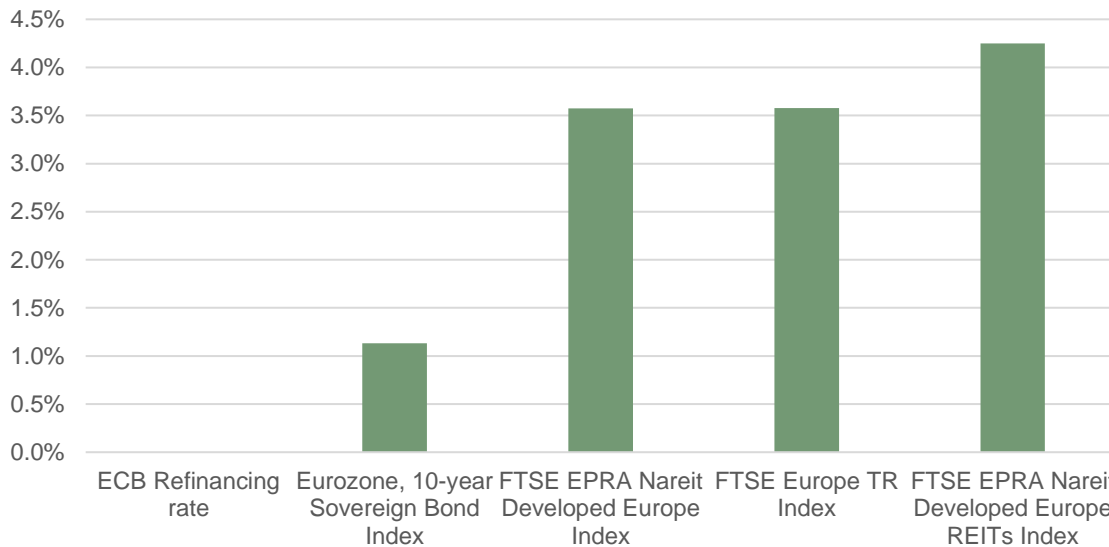
³ EPRA Global REIT Survey.

European REITs have only recently been introduced and are fragmented, while some markets, such as Sweden and Switzerland, have yet to introduce them.

Typically, REITs have high dividend income pay-out ratios. However, they are not the only LRE companies with this feature. It has been useful for investors to classify the companies that derive 70% of their annual income from leasing as Rentals.

Overall, LRE companies (shown by the FTSE EPRA Nareit Developed Europe REITs Index) provide a relatively high yield, particularly in comparison to current European interest rates and bond yields (see Figure 5).

Figure 5. Comparison of bond yields and dividend yields for European Real Estate indexes



Source: EPRA Nareit, FTSE Russell. Data as of September 30, 2020. Please see the end for important legal disclosures.

Relationship between returns of LRE, direct real estate and equity market

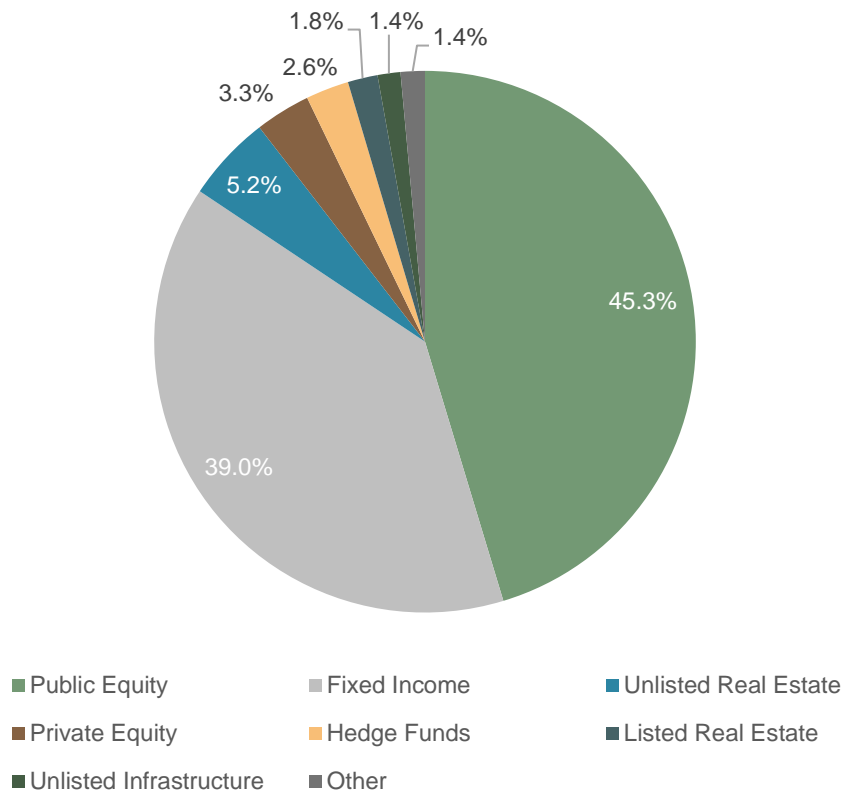
European pension funds have invested less than 1% into LRE within their real estate allocation, as direct investments continue to be the default strategy. This strategy systematically leads to an under-allocation to LRE, which has outperformed direct property investments, according to recent data analysis⁴ (see Figure 6). Indeed, one of the largest sovereign wealth funds only recently announced the integration of its unlisted and LRE, motivated by cost and similarity between the two forms.

At the same time, analysis carried out by Oxford Economics in 2019 on the optimization of multi-asset portfolios returns examined the risk-adjusted returns of model portfolio with varying levels of LRE. The optimal portfolio was achieved by allocating 10-25% to LRE, depending on the risk tolerance. The same research analyzed holdings across European institutional investors and discovered that the average allocation to LRE was underweight, and hence sub-optimal.⁵

⁴ CEM Report.

⁵ Oxford Economics report.

Figure 6. DB pension fund allocations in Europe



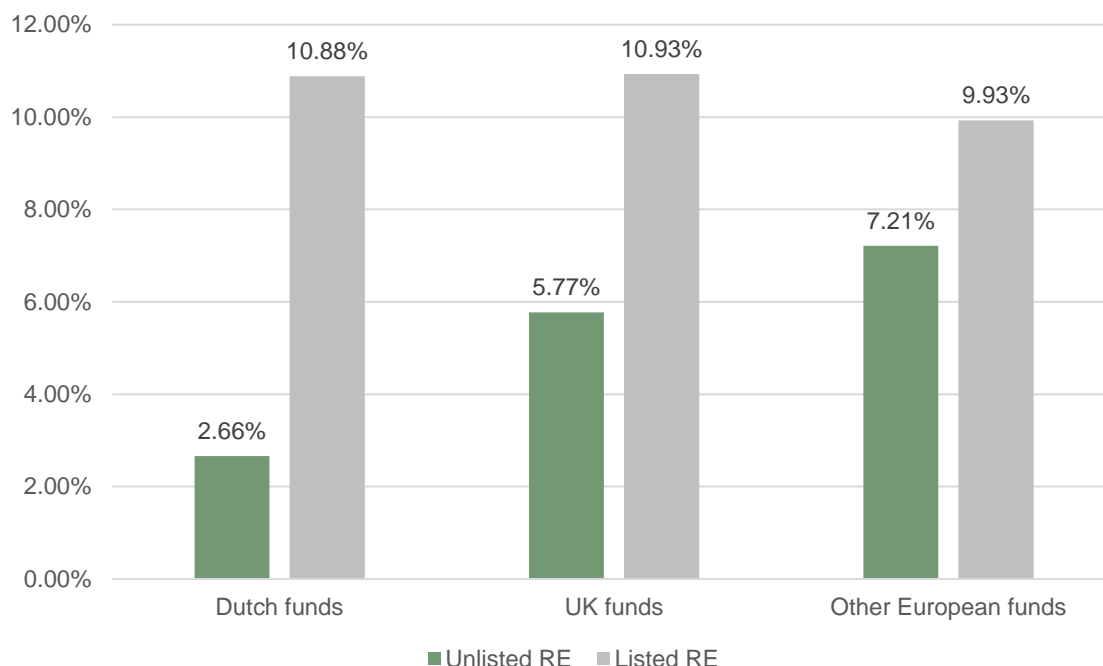
Source: CEM Benchmarking. Please see the end for important legal disclosures.

There is some justification for using LRE and direct real estate investment interchangeably in a portfolio, as academic studies show returns of LRE and direct property are similar over the long term (see for example Ang, Nabar, and Wald [2013]), although the short-term correlation of LRE with equity markets is relatively high. As a result, some institutional investors have historically allocated LRE as part their allocation to equities, instead of real assets.

One of the issues that complicates the performance comparison of LRE and direct investments is the difficulty in creating a contemporaneous benchmark for direct real estate. Low frequency of transactions, delays in valuation and the methodology applied to arrive at valuations are behind some of the challenges facing direct real estate benchmarking. Listed real estate and direct property investments have different drivers over the short and medium-term, but over the full real estate cycle, the differences disappear and returns become similar. In the most recent study on this topic, Hoesli and Oilarinen (2019) investigated the correlation in the UK, France, Germany, the Netherlands, the US and Australia for the period of 1998-2017 and found the return and risk characteristics to be highly correlated over the medium to long term.

In addition, returns for European pension funds by Toronto-based CEM benchmarking showed the correlation of returns to be 88% for the UK and Dutch funds. These results were not based on benchmarks, but on actual proprietary data of pension funds (with EUR 2.6 trillion in asset under management), representing 36% of the largest 1,000 pension funds in Europe.

Figure 7. Performance of listed and unlisted real estate in European pension fund portfolios (TR in local currency)



Source: CEM Benchmarking. Past performance is no guarantee to future results Please see the end for important legal disclosures.

With access to granular fund level data, the researchers at CEM were also able to align the asset valuation and reporting dates to carry out a like-for-like comparison. The study dispels the notion that the LRE returns are more volatile than those in direct real estate. The daily price volatility being inevitable due to stock price movement is not comparable to direct real estate that has as few as two updates in one year. Moreover, the returns for direct real estate were found to be more volatile than LRE.

Furthermore, there is no evidence of a liquidity premium in commercial real estate, since LRE outperformed direct real estate in the Netherland, the UK and in other European funds over the long term, as shown in Figure 7.

These results on listed and direct comparative performance are backed by considerable academic literature. Pagliari, Scherer & Monopoli (2005) demonstrate that the outperformance of REITs over direct investing is approximately 3.0% per annum in 1980-1998. This figure is confirmed by Riddiough, Moriarty & Yeatman (2005) and subsequently by Tsai (2007), where the results hold on sector level, as well. Andonov, Eichholtz & Kok's (2015) paper showed REITs outperforming on the gross return level compared to direct fund-of-funds. Kiehelä & Falkenbach (2015) found the underperformance of private equity real estate funds to be constant and significant. Ling & Naranjo (2015) investigated the performance by removing leverage from core REITs and found the outperformance to still be present at 49bps annualized.

Due to the similar long-term return profiles of listed and unlisted real estate, investors may need to focus more on the quality of management and the underlying assets than on the investment vehicle.

Complementary features of direct and LRE

Although LRE and direct real estate investments share similar return characteristics over the long term, it does not mean that they should or can always be used interchangeably in a portfolio. The two methods of investing are not perfect substitutes and, in most cases, are complementary. Indeed, not all sectors are equally accessible in all country markets through both types of investment. The best quality logistics and self-storage assets are held by REITs globally, while the non-listed sector holds most of the office buildings in Germany. Retail and data centers at the same time have sizable assets in both the listed and non-listed sectors. In instances where identical opportunities are available through both listed and direct channels, the performance and liquidity would imply that listed sector may be preferred. However, large investors have shown a tendency to tilt towards direct investments to have more control. Furthermore, direct property investments are carried out using leverage, where the asset forms the collateral.

There is a different level of scrutiny in the investment and management of listed and unlisted vehicles. Typically, a listed company has millions of independent shareholders, several sell-side ratings, and non-executive boards. Diversification benefits are accessible to a broader set of investors through LRE, while on the direct side, only a handful of investors have the means to build and manage a truly global portfolio with the full range of property sectors. Indeed, synergy and cost economies in direct property can be achieved at a level that puts this option beyond the scope of most investors.

Markets with broader range of stakeholders exert influence on LRE performance and scrutinize operations due to full disclosure reporting. As transactions on the property market and capital raisings are carried out publicly, market response is reflected immediately on companies' valuation. Management teams do not only have to reference accepted level of leverage, cap-rates, and dividends but also on remunerations. This market scrutiny induces a discipline that is in sharp contrast to modes of investing that have limited public disclosure in direct investment real estate vehicles.

Property investment benchmarking and diversification

Referencing LRE returns to those of equities is not only misleading over the long term, it is technically inaccurate, given the property metrics, i.e., Finance from Operations (or FFO) and NAV are not directly comparable to ratios used for other equity sectors. This, however, is not surprising, as LRE has been traditionally included in the Financials sector in major classification systems (i.e., FTSE Russell's ICB) used by equity investors and index methodologies. Due to the growth and distinguishing correlations, the classification systems have decided to separate LRE as a stand-alone sector. For ICB, the separation is scheduled to take effect in the first quarter 2021.

Figure 8 shows that LRE generates different return profiles than other assets over the long term—the main reason it is considered a separate asset class. On an annual basis, LRE performance in Europe, Asia-Pacific, and North America differs from other asset classes, especially general equities.

Figure 8. Multi-asset sector performance table

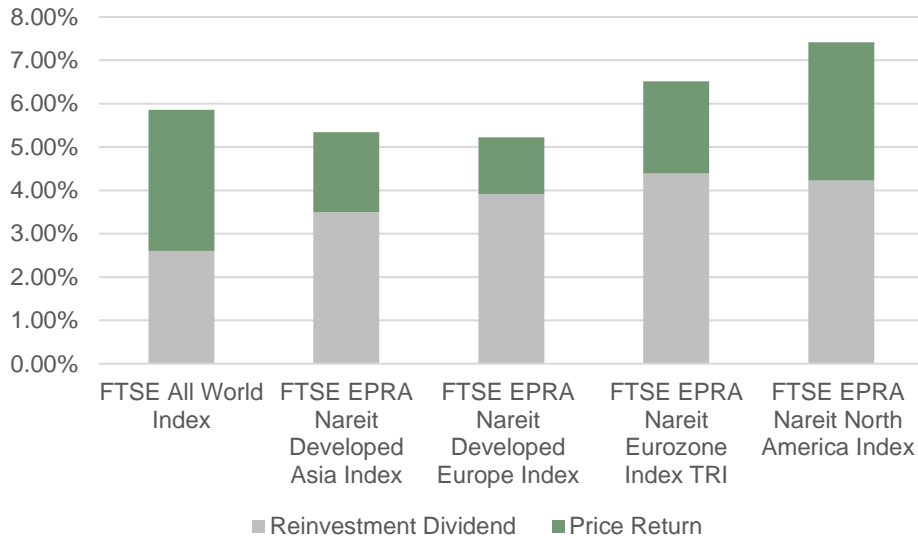
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 YTD	10-yr TR*
	Gold 31%	Global bonds 9%	Asia Real Estate 39%	North America Real Estate 38%	North America Real Estate 12%	Asia Real Estate 43%	Global equities 26%	North America Real Estate 46%	Europe Real Estate 19%	North America Real Estate 11%	Global equities 20%	Asia Real Estate 4%	Europe Real Estate 30%	Global Bonds 4.4%	North America Real Estate 8.8%
	Global equities 8%	Gold 6%	Europe Real Estate 36%	Gold 30%	Gold 10%	Europe Real Estate 29%	Europe Real Estate 11%	Europe Real Estate 26%	North America Real Estate 13%	Global equities 10%	Gold 14%	Global bonds 1%	North America Real Estate 27%	Gold 3.9%	Europe Real Estate 7.7%
	Asia Real Estate 4%	North America Real Estate -38%	Global equities 31%	Asia Real Estate 25%	Global bonds 6%	Global equities 17%	Asia Real Estate 0%	Asia Real Estate 14%	Asia Real Estate 3%	Asia Real Estate 9%	Europe Real Estate 13%	North America Real Estate 1%	Global Equities 27%	Global Equities -20%	Asia Real Estate 5.3%
	Global bonds 4%	Global equities -39%	North America Real Estate 28%	Europe Real Estate 17%	Global equities -6%	North America Real Estate 16%	Global bonds 0%	Global equities 10%	Global equities 2%	Gold 8%	Asia Real Estate 2%	Gold -2%	Asia Real Estate 19%	Asia Real Estate -25.2%	Gold 5.9%
	North America Real Estate -23%	Europe Real Estate -49%	Gold 24%	Global equities 11%	Europe Real Estate -9%	Gold 7%	North America Real Estate -3%	Global bonds 9%	Global bonds 1%	Global bonds 3%	Global bonds 1%	Global equities -7%	Gold 18%	Europe Real Estate -25.8%	Global equities 3.8%
	Europe Real Estate -32%	Asia Real Estate -50%	Global bonds 1%	Global bonds 4%	Asia Real Estate -17%	Global bonds 4%	Gold -28%	Gold -1%	Gold -10%	Europe Real Estate -5%	North America Real Estate -8%	Europe Real Estate -8%	Global Bonds 6%	North America Real Estate -27.6%	Global bonds 3%
Multi-asset approach return	-1.4%	-26.7%	26.5%	20.8%	-0.7%	19.4%	0.9%	17.1%	4.7%	6.2%	7.1%	-1.9%	21.2%	18.6%	

Source: FTSE Russell. Annual data from 2007 to March 2020. Past performance is no guarantee to future results Please see the end for important legal disclosures.

Various studies, however, suggest that the LRE market is a good proxy for the performance of direct investments in the long run, while its short-term performance is influenced by equity market volatility (as per earlier mentioned publications [1]-[9]).

Another important feature of the LRE is the share of current income in the total return. A decomposition of the total return since the inception of the FTSE EPRA Nareit Index series demonstrates that reinvestment of dividends has been the major driver for all LRE regions. Around 85% of the return for regional LRE indexes came from the income return, compared to 50% for all equities group (Figure 9).

Figure 9. Total return breakdown for FTSE Russell and FTSE EPRA Nareit Indexes

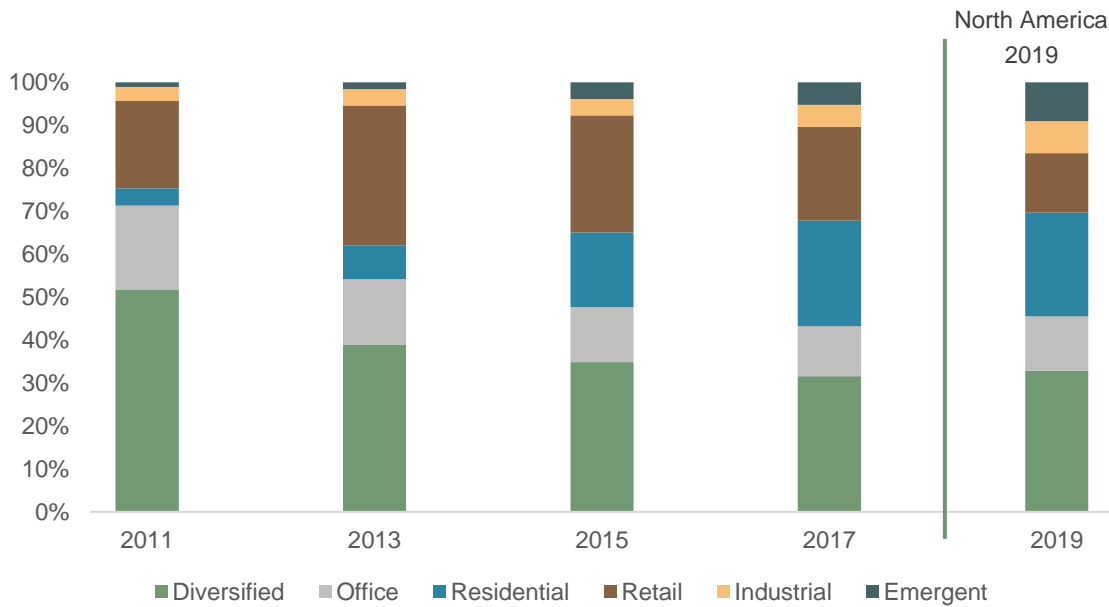


Source: FTSE Russell. Annualized data for the period from January 2, 2006 to December 31, 2019. Past performance is no guarantee to future results Please see the end for important legal disclosures.

Latest trends in LRE performance—emergent sectors

Markets also play a role in influencing the selection of companies and market segments of LRE. This has been demonstrated by the growth of emerging sectors in the European listed property sector, as seen in the US market (Figure 10). These emerging property sectors reflect mega trends that are sustained market developments, spanning beyond a cycle to permanently alter the investment proposition. This evolution is secular in nature, as it is driven by market demand of under-supplied real estate, where dedicated investors support increasing securitization over traditional property segments. The opportunity is reflected through share price premia and positive inflow in equity and debt.

Figure 10. Evolution of sector weights in FTSE EPRA Nareit Europe and FTSE EPRA Nareit North America Indexes



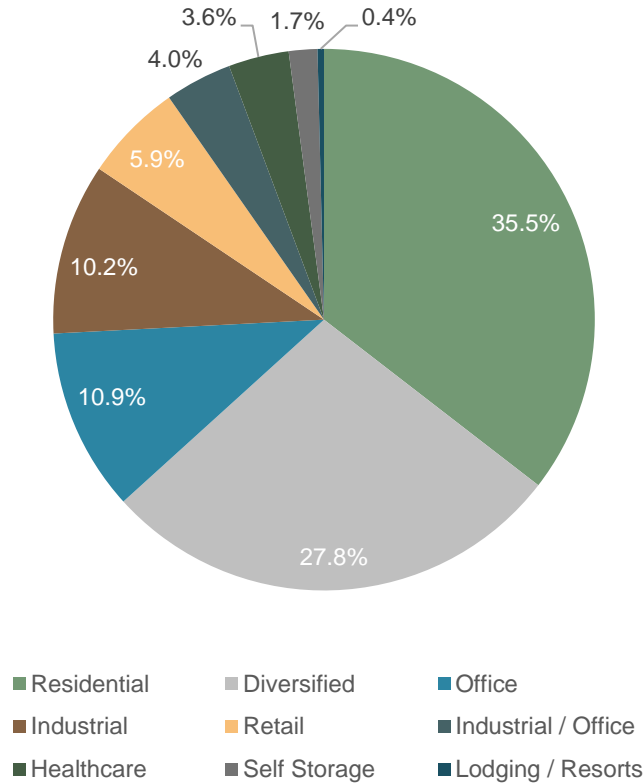
Source: FTSE Russell. Please see the end for important legal disclosures.

Data centers

The emergent sectors represent 9% of the European LRE, after growing rapidly since 2011. However, it is still much smaller, compared to 27% in the US LRE market. Indeed, cell towers and data centers are yet to enter the European market. The estimated number of data centers in Europe is similar to the US at around 2,600⁶. The larger European population will underpin further growth of data centers in Europe, while there are no European data center company in the FTSE EPRA Nareit Developed Europe Index. Today only 9% of the data center sector in the UK is accessible through US REITs. Similarly, cell towers—which has outpaced all other sectors globally—has yet to enter the European market.

⁶ Green Street Estimates.

Figure 11. FTSE EPRA Nareit Developed Europe Index, sector weights



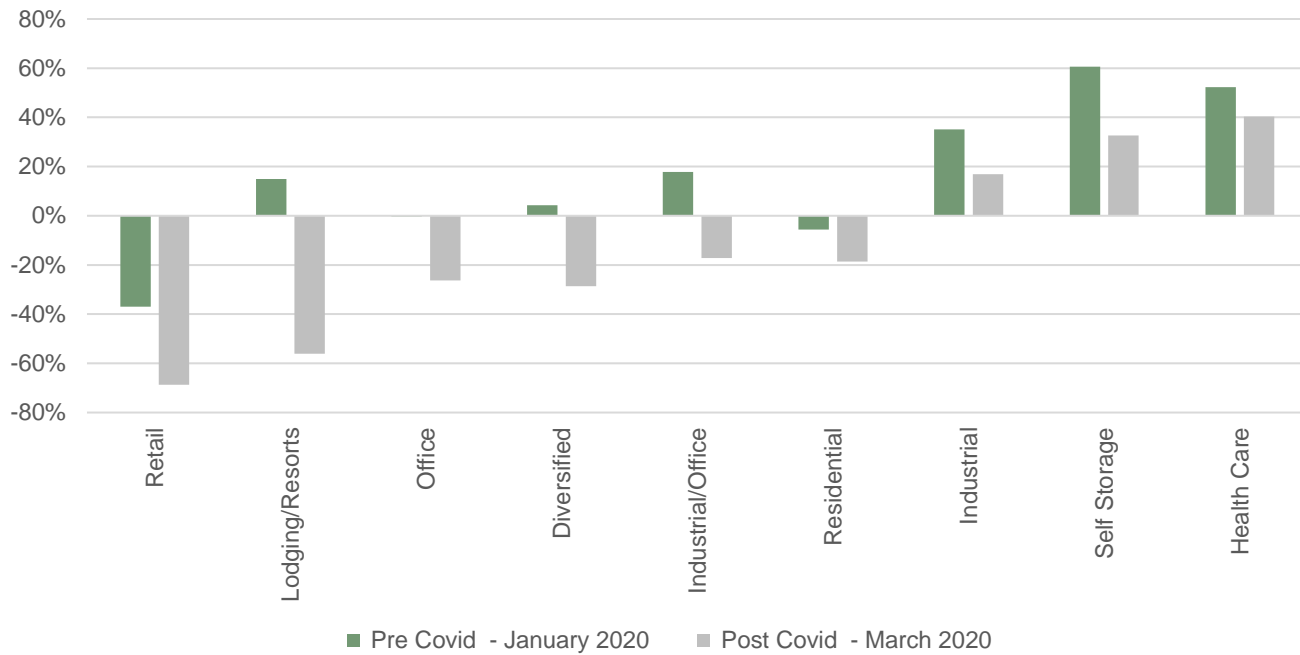
Source: FTSE Russell. Data as of August 1, 2020. Please see the end for important legal disclosures.

E-commerce

The growth of e-commerce and its effect on both retail and industrial asset is perhaps the most widely observed mega trend. The retail real estate sector, which is already under pressure from online shopping, entered its most challenging phase due to COVID-19 restrictions. As the pandemic accelerated, the rapidly growing share of online retail within the total European retail spending—already doubled during 2013-2018—further benefited the industrial sector. This divergence in trends amplifies the general benefit of holding a diversified portfolio, which is achieved quicker through LRE, as a combined weight average yielded better results (Figure 12).

While mega trends shape long-term shifts in the property market, shorter term events are also of high importance for investors. The recent downturn has had an adverse effect on all sectors as demonstrated by the impact on the year-end NAV versus the end of Q1 2020 in Figure 12. Although the debate is still open on the duration of the pandemic effect on valuations, some sectors will recover strongly compared to others. Even the otherwise resilient health care sector gave up some of its premium, due to non-essential treatments being postponed. The office sector, for instance, has directly suffered from the strict measures on social distancing, along with lodging and resort companies. Although they are expected to rebound, their recovery rate is anticipated to be different.

Figure 12. NAV Premium/Discount for FTSE EPRA Nareit Developed Europe Index (%)



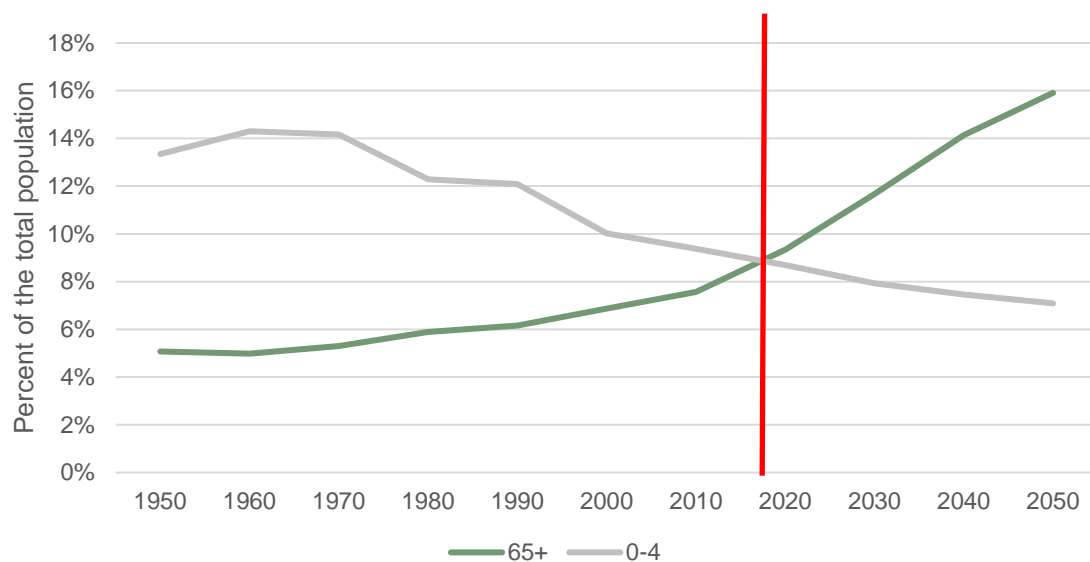
Source: EPRA Nareit. Past performance is no guarantee to future results. Please see the end for important legal disclosures.

The downward revisions on office buildings is applicable regardless of whether these are held by REITs or as direct property. In the short to medium term, both cash flows and occupancy should have limited impact, as tenants continue to pay rent on the back of various stimuli. In the longer run, the effectiveness of remote working has been tested at an accelerated pace, which is likely to shape office policies going forward, having a direct consequence for the sector.

Demographic trends

Exploring further mega trends taking shape in Europe, demographical shift is another important one for the sector. It is reflected through increasing weight of care homes, or assisted living in the FTSE EPRA Nareit Developed Europe Index. This trend is driven by the aging population.

Figure 13. European demographic trends



Source: BoA – Merrill Property Research.

Health care has benefited from the identified shifts in age demographics in Europe (Figure 13), which reached a critical point in 2020, when for the first time, the age group of 65-year+ has overtaken the under-five year group. This has already led to a nine-fold increase of the weight in health care in the European Index.

Figure 14. Total return of selected sectors of FTSE EPRA Nareit indexes, % p.a. in EUR.

FTSE EPRA Nareit Index	Period			
	1 year	3 years	5 years	10 years
Diversified	34.81	12.37	8.96	11.65
Health Care	56.56	16.55	12.45	12.58
Self-Storage	59.31	29.29	21.53	19.27
Retail	11.08	-8.6	-4.29	2.94
Industrial	54.15	25.81	20.15	15.92
Office	41.87	18.47	13.55	14.11
Residential	17.69	16.71	16.22	17.95
Global	25.33	7.07	8.14	11.96
Developed Europe	26.69	10.73	9.02	11.36
Europe Capped	26.69	10.81	9.09	

Source: FTSE Russell as at December 31, 2019. Past performance is no guarantee to future results. Please see the end for important legal disclosures.

High growth sectors in Europe

High growth segments are not limited to emerging sectors and can also come from traditional sectors of an under-represented sub-market. The emergence of German residential as the largest weight, from a negligible position nine years ago, serves as an example. After mostly being accessible through private investing, the growth prospects, and strong fundamentals, attracted the listed market to the segment, leading to a string of market flotation during 2012-2018. In more recent years, Swedish LRE has contributed strongly towards the returns of the Europe index as shown in Figure 14.

Figure 15. Total return of selected FTSE EPRA Nareit Europe country indexes (% p.a. EUR)

	1 year	3 years	5 years	10 years
UK	38.38	8.84	3.76	10.00
Netherlands	10.15	-8.57	-2.93	0.24
France	38.50	8.43	8.70	10.09
Austria	39.33	26.80	23.35	17.83
Sweden	48.22	23.25	20.00	20.91
Germany	13.90	15.14	15.10	15.63
Switzerland	45.11	14.06	15.08	14.86
Belgium	34.02	16.32	14.69	11.69
Italy	24.63	15.65	10.38	5.56
Spain	29.68	16.14	14.25	-
Norway	30.79	18.22	13.80	3.36
Finland	67.68	19.95	15.46	11.89
Ireland	27.66	11.73	-	-

Source: FTSE Russell as at December 31, 2019. Past performance is no guarantee to future results. Please see the end for important legal disclosures.

Periods of economic or market distress produced a wide variability in geographical and sector performance as Figures 14, 15 and 16 show. Real estate has been particularly vulnerable during both the major GFC and COVID-19 downturns, albeit for different reasons. The lockdown period, due to COVID-19, initially raised concerns on the overall ability of occupiers to be able to pay rents across sectors, lowering the trajectory of forecasted cash flow growth and creating a downward revision on property values. As the economies are gradually being opened, rent collections appear to have held up better than anticipated⁷ thanks to various government stimuli. The retail and lodging sectors have been notable exceptions as social distancing remains valid for months to come.

⁷ Source: EPRA NAREIT Research and other sources.

A comparison of the maximum sector drawdowns shows that markets recognize the difference of underlying asset types, as the impact is heterogenous.

Figure 16. FTSE EPRA Nareit Developed Index, drawdown analysis

	2020		GFC	
	Drawdown	Bounce back to 27/4/2020	Drawdown	Bounce back, p.a.
Diversified	53.4%	24.5%	63.8%	17.2%
Health Care	56.7%	44.1%	23.0%	16.9%
Self-Storage	33.1%	16.6%	41.7%	24.7%
Retail	56.9%	23.3%	73.2%	31.8%
Industrial	34.6%	27.3%	85.8%	26.8%
Office	44.9%	13.5%	63.1%	17.5%
Regional Mall	67.0%	24.3%		
Residential	44.1%	29.2%	59.1%	
Data Centers	30.8%	30.9%		
Specialty	56.2%	44.0%		
FTSE Developed	34.0%	29.2%	58.4%	16.6%

Source: FTSE Russell as of April 27, 2020. Past performance is no guarantee to future results. Please see the end for important legal disclosures.

In addition, the emergent sectors have fared relatively better. Overall, LRE lost 34% during the COVID-19 compared to a loss of 58.4% during the GFC.

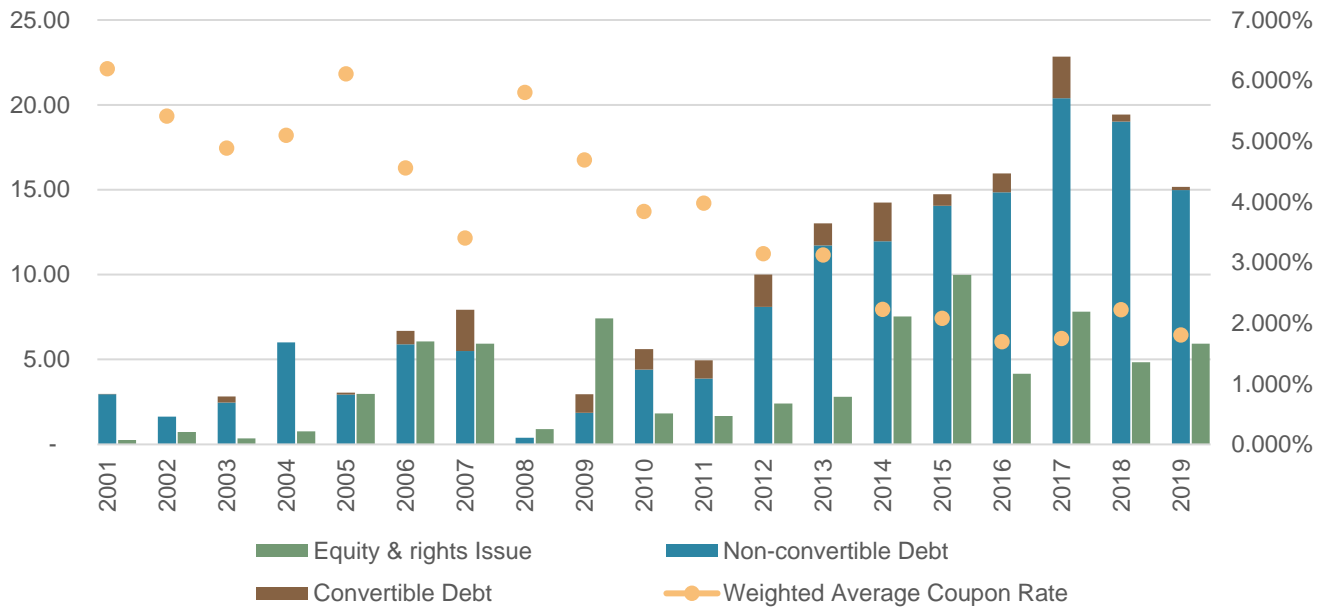
COVID-19 impact on the LRE market

Despite strong fundamental for even the more resilient sectors, the impact of COVID-19 is expected to keep a dampening effect on growth multiples, as the overall economy has entered a slowdown. Where overall declines have been slightly better than the GFC, it should be in the context of historically low interest rates accompanied by unprecedented stimuli.

The COVID-19 crisis is having different effects across the property sectors. Industrial & logistics is clearly one of the sectors that has benefited, not only through e-commerce but also through the re-configuration of supply chains by retailers moving towards the just-in-time model. In Q3 2020, Residential had recovered to pre-crisis level. Over the long run, increased home working may dampen urbanization rates and associated growth of housing demand in major cities, also affecting demand for office space, although there is space for a potential offset as public health concerns demand greater square footage per person.

Learning from the GFC, where high levels of debt were shunned permanently by the market, companies have been active in reducing leverage. With low interest environment and yield seeking capital flows, it has enabled European companies to access the public debt market, while cutting down their cost of debt dramatically, from close to 6% to just under 2%. Except for 2008, during the GFC, European companies have raised more capital through debt than equity. Furthermore, capital raising during Q1 2020 saw quite a bit of issuance—EUR 4.9 billion was raised in the first four months of 2020, keeping pace with 2019—that sharply contrasts the small volume in 2008.

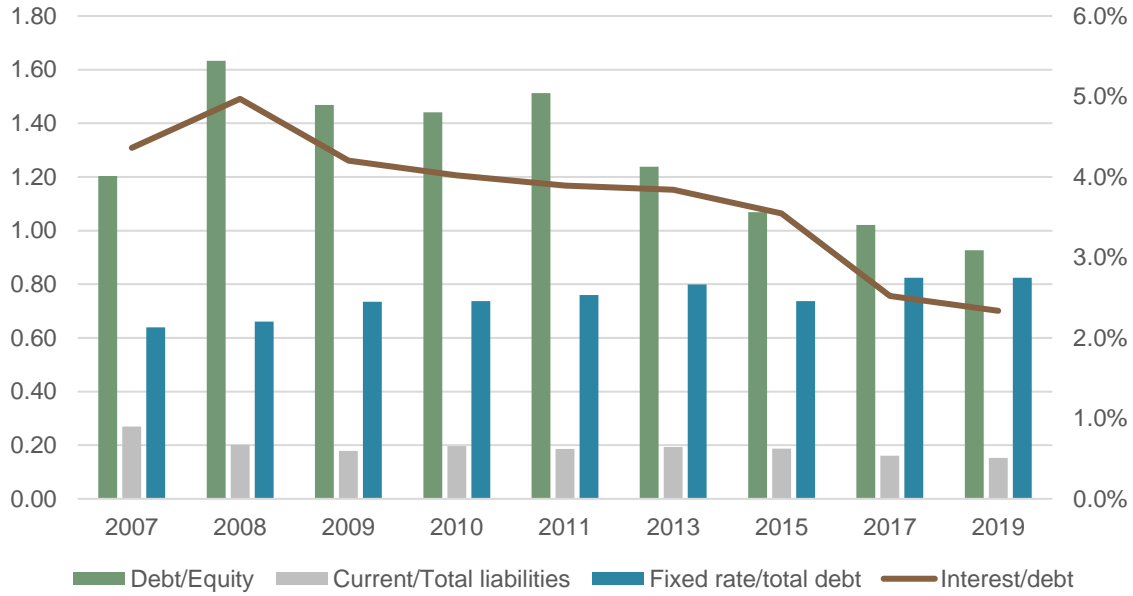
Figure 17. Capital raising by companies in FTSE EPRA Nareit Developed Europe Index and average cost of debt



Source: EPRA Nareit, March 2020. Please see the end for important legal disclosure

Part of the raised debt has been used to replace existing loans at more favorable rates. The strengthening of the balance sheet is also reflected by a higher proportion of fixed rate debt to lock in rates for longer, while reducing level of current liabilities (Figure 18).

Figure 18. FTSE EPRA Nareit Developed Europe Index balance sheet ratios



Source: EPRA Nareit, Data from December 2007 to December 2019. Please see the end for important legal disclosure.

Summary

The European LRE sector plays an important role by offering access to an asset class that requires high capital requirement and is highly specialized.

Academic studies suggest that there is a high correlation between LRE and direct property over the longer term. In addition, evidence has emerged that challenges the perception of LRE returns being more volatile. Through de-lagging and using actual return data, LRE returns have demonstrated lower volatility, although price volatility in the short term remains inevitable due to public market movements.

Diversification in terms of property sectors and geography is achieved in the most cost-efficient manner through the listed sector.

In certain markets REIT status is not available, so investors need to consider non-REIT stocks to gain exposure to the LRE sector. An effective proxy for a global or European REIT-like index is the Rentals-only index.

Since real estate investments are typically long term in nature, investors need to look at mega trends beyond the current volatility caused by COVID-19. Mega trends on e-commerce, ageing and use of office space indicate that specific drivers remain relevant, despite the recent slowdown. European LRE sector exposure is showing increasing tilts towards emerging sector, in line with the US market.

Early signs of recovery after the sharp declines in NAV seen in Q1 2020 vary by sector and have altered respective growth trajectories. In comparison, the COVID-19 crisis finds the European listed sector in a stronger position than during the GFC. All things being equal, this translates into improved liquidity during the period and a better foundation for a subsequent rebound.

References

- [1] Kiehelä, S., & Falkenbach, H. Performance of non-core private equity real estate funds: A European view. *Journal of Portfolio Management*, 41(6), 62-72, 2015.
- [2] Ling, David C. and Naranjo, Andy and Scheick, Benjamin, MSA Geographic Allocations, Property Selection, and Performance Attribution in Public and Private Real Estate Markets (September 14, 2015).
- [3] Aleksandar Andonov, Piet Eichholtz, Nils Kok, Intermediated investment management in private markets: Evidence from pension fund investments in real estate, *Journal of Financial Markets*, V 22, pages 73-103, 2015.
- [4] Alcock, Jamie and Baum, Andrew and Colley, Nicholas and Steiner, Eva Maria, The Role of Financial Leverage in the Performance of Private Equity Real Estate Funds (May 10, 2013). *Journal of Portfolio Management*, 2013, 39 (5), pages 99-110.
- [5] Tsai, Jengbin. A successive effort on performance comparison between public and private real estate equity investment, MIT, 2007.
- [6] Riddiough, Timothy & Moriarty, Mark & Yeatman, P.J. Privately Versus Publicly Held Asset Investment Performance. *Real Estate Economics*, 33. 121-146, 2005.
- [7] Pagliari, J.L., Jr., Scherer, K.A. and Monopoli, R.T., Public Versus Private Real Estate Equities: A More Refined, Long-Term Comparison. *Real Estate Economics*, 33: 147-187, 2005.
- [8] Ling & Naranjo. Returns and Information Transmission Dynamics in Public and Private Real Estate Markets. *Real Estate Economics*, 2015 V00 00: pp. 1–47, 2015.
- [9] Martin Hoesli & Elias Oikarinen: Does listed real estate behave like direct real estate: updated and broader evidence, ERES eres2019_68, European Real Estate Society (ERES), 2019.

About FTSE Russell

FTSE Russell is a leading global provider of benchmarks, analytics and data solutions with multi-asset capabilities, offering a precise view of the markets relevant to any investment process. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create investment funds, ETFs, structured products and index-based derivatives. FTSE Russell indexes also provide clients with tools for performance benchmarking, asset allocation, investment strategy analysis and risk management.

To learn more, visit ftserussell.com; email info@ftserussell.com; or call your regional Client Service Team office

EMEA

+44 (0) 20 7866 1810

North America

+1 877 503 6437

Asia-Pacific

Hong Kong +852 2164 3333

Tokyo +81 3 4563 6346

Sydney +61 (0) 2 8823 3521

© 2020 London Stock Exchange Group plc and its applicable group undertakings (the "LSE Group"). The LSE Group includes (1) FTSE International Limited ("FTSE"), (2) Frank Russell Company ("Russell"), (3) FTSE Global Debt Capital Markets Inc. and FTSE Global Debt Capital Markets Limited (together, "FTSE Canada"), (4) MTSNext Limited ("MTSNext"), (5) Mergent, Inc. ("Mergent"), (6) FTSE Fixed Income LLC ("FTSE FI"), (7) The Yield Book Inc ("YB") and (8) Beyond Ratings S.A.S. ("BR"). All rights reserved.

FTSE Russell® is a trading name of FTSE, Russell, FTSE Canada, MTSNext, Mergent, FTSE FI, YB and BR. "FTSE®", "Russell®", "FTSE Russell®", "MTS®", "FTSE4Good®", "ICB®", "Mergent®", "The Yield Book®", "Beyond Ratings®" and all other trademarks and service marks used herein (whether registered or unregistered) are trademarks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, MTSNext, FTSE Canada, Mergent, FTSE FI, YB or BR. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

All information is provided for information purposes only. All information and data contained in this publication is obtained by the LSE Group, from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors, however, such information and data is provided "as is" without warranty of any kind. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the accuracy, timeliness, completeness, merchantability of any information or of results to be obtained from the use of the FTSE Russell products, including but not limited to indexes, data and analytics or the fitness or suitability of the FTSE Russell products for any particular purpose to which they might be put. Any representation of historical data accessible through FTSE Russell products is provided for information purposes only and is not a reliable indicator of future performance.

No responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for (a) any loss or damage in whole or in part caused by, resulting from, or relating to any error (negligent or otherwise) or other circumstance involved in procuring, collecting, compiling, interpreting, analysing, editing, transcribing, transmitting, communicating or delivering any such information or data or from use of this document or links to this document or (b) any direct, indirect, special, consequential or incidental damages whatsoever, even if any member of the LSE Group is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, such information.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing contained herein or accessible through FTSE Russell products, including statistical data and industry reports, should be taken as constituting financial or investment advice or a financial promotion.

Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index returns shown may not represent the results of the actual trading of investable assets. Certain returns shown may reflect back-tested performance. All performance presented prior to the index inception date is back-tested performance. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. However, back-tested data may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index.

This document may contain forward-looking assessments. These are based upon a number of assumptions concerning future conditions that ultimately may prove to be inaccurate. Such forward-looking assessments are subject to risks and uncertainties and may be affected by various factors that may cause actual results to differ materially. No member of the LSE Group nor their licensors assume any duty to and do not undertake to update forward-looking assessments.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group data requires a licence from FTSE, Russell, FTSE Canada, MTSNext, Mergent, FTSE FI, YB, BR and/or their respective licensors.