

MARKET
RESEARCH

European Listed Real Estate

Sector Report Residential

FTSE EPRA Nareit
Global Real Estate Index Series

November
2020

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I. Introduction

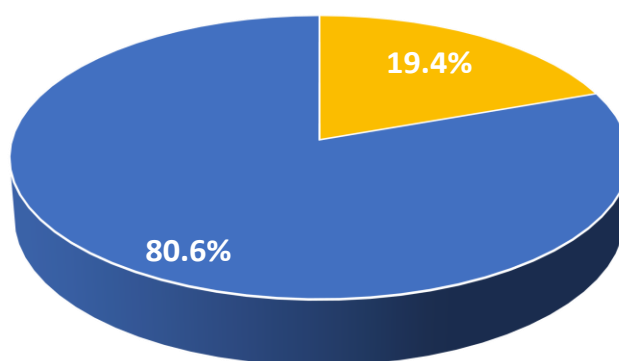
Residential is one of those segments easily associated with real estate by the general public. However, in the listed industry, many property companies operate a business model that is far beyond the standard home-rental structure. Despite the fact that residential landlords have long been considered part of the traditional real estate industry in North America and some parts of Asia, in Europe this sector was represented by very few companies for several years. In the last decade, new players have appeared and the existing ones have expanded, bringing a lot of attention and investment capital into the residential scope and creating new sub-sectors that now offer significant diversity in terms of geographies, activities, fundamental drivers and social impact.

In this report we analyse some of the main trends observed in residential listed real estate in Europe, focusing in particular on those companies included in the FTSE EPRA Nareit (FEN) Developed Europe Index. After this introduction, in section 2 we explore the different sub-sectors, identifying those characteristics that make this sector unique compared to other regions as well as the main demographic drivers that have promoted its recent expansion. Section 3 looks at players outside of the index universe that remain relevant for understanding the industry and showcase interesting examples of innovation, social impact and sustainability. In Section 4, we review some sector experts' expectations and possible changes for the sector in 2021 and, finally, section 5 presents some key takeaways.

THE BIG PICTURE: RESIDENTIAL COMPANIES IN THE FTSE EPRA NAREIT GLOBAL INDEX SERIES

As Sep/20, the FEN Global Index had a total of 485 constituents, from which 64 of them were classified as residential, 41 from Developed Markets and 23 from Emerging Markets, representing a total weight of 19.4%. However, knowing that many companies in China are classified as diversified due to the lack of a clear breakdown on their annual reports, EPRA estimates this total weight of residential companies in the global index to be close to 23%. During the last 10 years, the sector has seen significant changes across of the regions.

FEN Global Index Series: Sep/2020

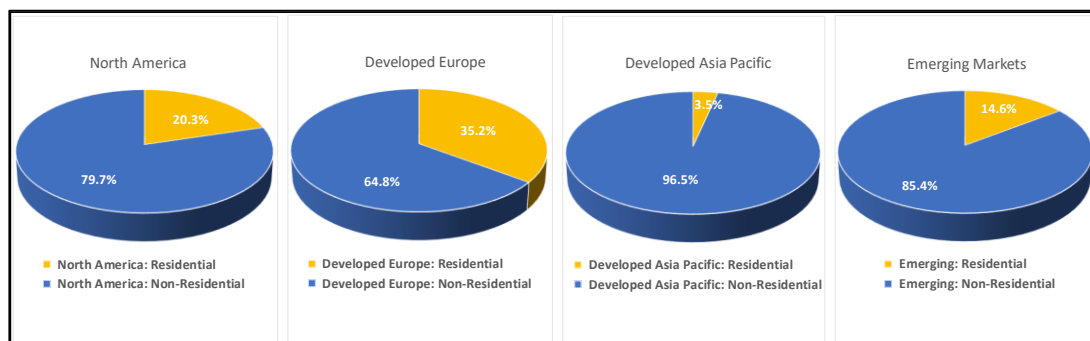


■ FTSE EPRA Nareit Global Residential
■ FTSE EPRA Nareit Global Non-Residential

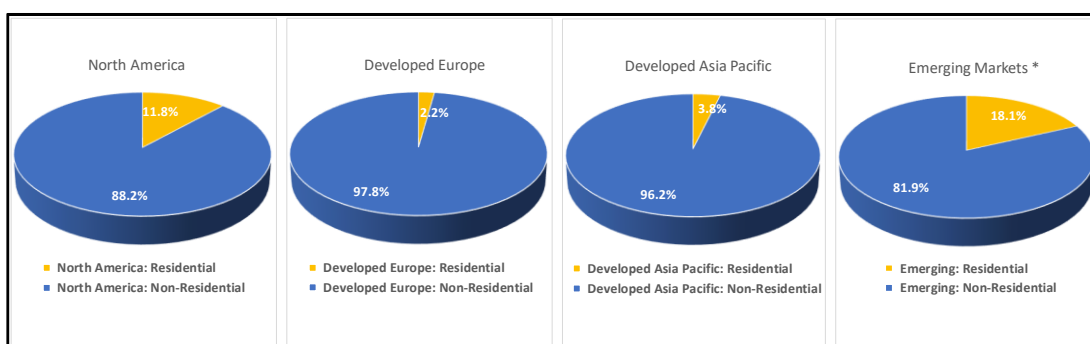
Source: EPRA

Both in North America and Developed Europe the residential sector has grown substantially, moving from a weight of 11.8% and 2.2% respectively in 2010 to 20.3% and 35.2% in 2020. Of course, the case of residential growth in Europe is remarkable, and we will explore it in further detail throughout this report. The European recovery after the Global Financial Crisis (GFC) in 2007-2009, the strong urbanisation trend observed in many countries and the new developments in the property markets have created the perfect conditions for this expansion. This also applies to the Developed Asia Pacific region and Emerging Markets (EM), but this is not evidenced by index weights since many companies investing and developing new residential projects in these markets have chosen to follow a more multi-sector strategy and so are classified as diversified, due to investments in sectors like industrial and logistics, office and lodging & resorts.

Weight of Residential Companies in the FEN Global Index Series: Sep/2020



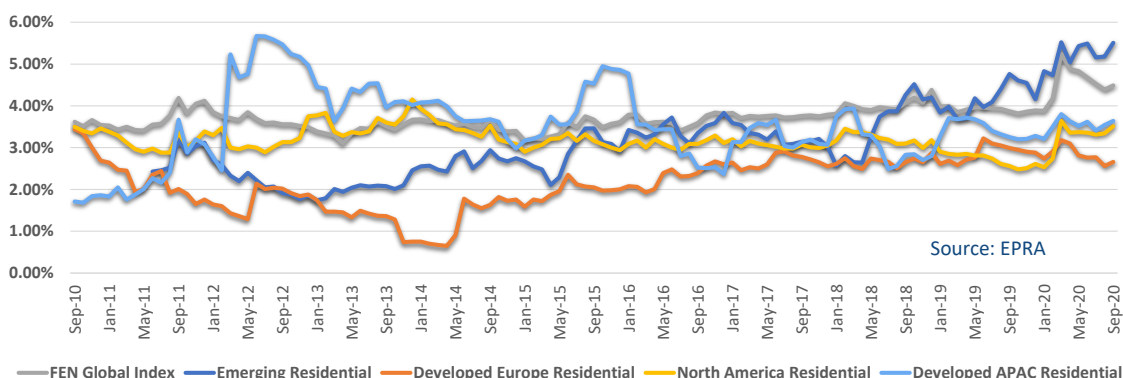
Weight of Residential Companies in the FEN Global Index Series: Sep/2010



* Data for Emerging Market as Jun/2011. Source: EPRA

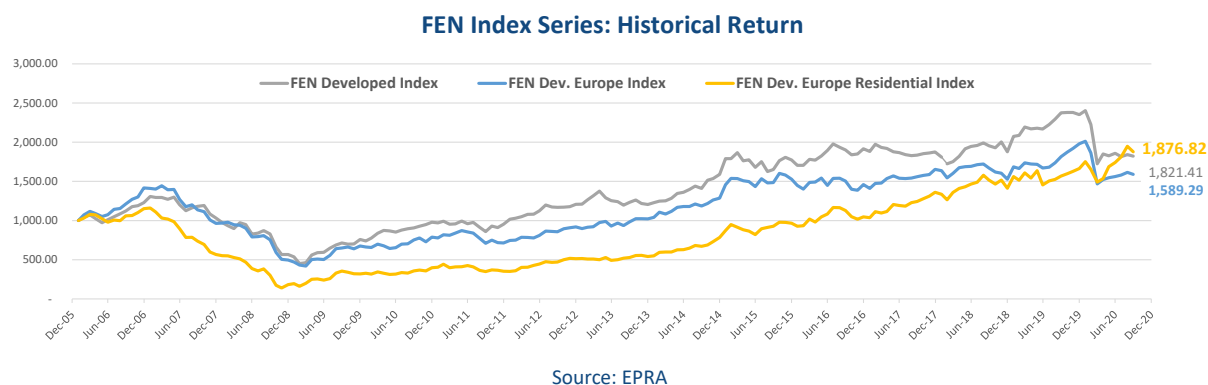
One interesting observation in terms of investment focus of those companies classified as ‘residential’, where 23 out of 64 are classified as Non-Rental and assigned an emerging nationality. This is not a coincidence since, under the [Index Ground Rules](#), residential development is considered a relevant real estate activity only in the Asia Pacific (APAC) region and Emerging Markets (EM), mainly due to the particular structure of these markets where there are not many listed residential landlords and the biggest players are typically homebuilders, which is the case of countries like Brazil, Thailand or the UAE. In addition, many companies in countries like China and India follow a hybrid model, leasing residential properties while simultaneously developing large urbanisation projects in intermediate cities for millions of people coming from rural areas every year looking for new opportunities. This can also be observed in the evolution of the dividend yields, where the figures for the residential indexes from APAC and EM were on average 70 bps above their peers in Developed Markets (DM) during the last decade. Then we can easily characterize most of the residential index constituents from Emerging countries as *Developers* and from DM as *Rental* companies. The distinction between REITs and non-REITs is also important, especially in Europe, however we will develop further this discussion in Section 2.

FTSE EPRA Nareit Residential: Dividend Yields

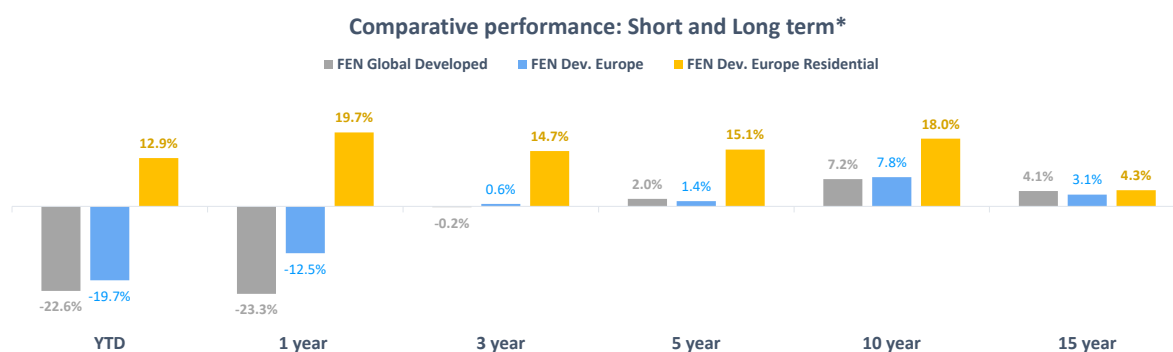


II. Evolution of the FTSE EPRA Nareit Developed Europe Residential Index

The FEN Developed Europe Residential Index was created in 2006 after the introduction of the sector classification to the global index series in 2005. At that time, the residential index represented around EUR3.5 Billion in free float market capitalization (ff market cap) and was composed by 3 constituents only: Deutsche Wohnen (Germany), Conwert Immobilien (Austria) and Grainger Trust (UK), all of them operating under the traditional home-rental business model. Almost 15 years later, the index is composed of 16 companies from Belgium, Finland, Germany, Ireland and UK, totalling EUR 76 Billion in ff market cap and representing significant diversity in terms of property subsectors and activities.



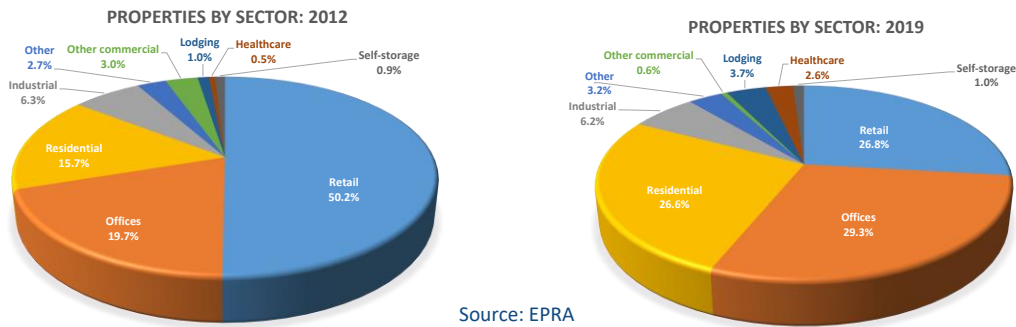
The first years of the index were difficult, with a moderate performance in 2006 and a significant drop in the next two years as a direct consequence of the GFC. After a slow but steady recovery in 2010, the Eurozone debt crisis in 2011-2013 clearly limited the expansion of the residential markets in Europe, so the index remained almost flat for a few years. In 2014, the value of the index began to grow steadily, reaching pre-crisis levels in 2015, exceeding the 15y accumulated return of both the FEN Developed Europe Index and the FEN Global Developed Index in 2020.



*Total annualised returns, except for YTD. Source: EPRA

In terms of the property portfolio owned by the companies in the FEN Dev. Europe Index, the residential sector has also seen significant expansion during the last decade. In 2012, the residential properties owned by index constituents were worth EUR 34.8 Billion, 13% of the total (EUR 275.4 Billion). Except for few residential specialists in Austria, Germany and the UK, the biggest part of these portfolios was owned by property companies with a diversified strategy or by specialists on other sectors, therefore considered non-core assets. However, in 2019 the picture looks entirely different, where the total residential portfolio amounted EUR 156 Billion, 27% over a total of EUR 585.8 Billion, and most of the properties are owned by residential specialists or diversified companies with a clear residential strategy on new sub-sectors like student housing, social housing, serviced-apartments, care houses and multifamily developments.

Property Portfolio Owned by the FEN Developed Europe Index constituents



A. BECOMING THE BIGGEST SECTOR IN THE CONTINENT: TRADITIONAL LANDLORDS, THE RISE OF GERMAN COMPANIES AND NEW MARKETS

When the FEN Developed Europe Residential Index was created in 2006, most market participants viewed the sector as a minor segment in the European real estate universe, ranking 5th in terms of market size (3.3%), far away from the biggest sectors: Retail (24%), Office (12.6%), Industrial (5.8%) and Diversified (52.1%). Since then, the enormous potential this segment, observed in property markets in the USA, Spain, the UK and Canada, has been realised in Europe too. However, two major financial crises affecting Europe forced this realization to wait almost ten years.

The first decade of the 21st century saw really important changes in the real estate industry in Europe. The fast expansion of the property markets before 2007 and the introduction of REIT regimes in some of the largest countries provided property companies with ample incentives to grow. In Germany, the strong economic development observed after reunification, especially in East Germany, had started to slow down and some of the major cities in the country were already showing the first signals of agglomeration and limited housing supply. Building permits and completed housing units had been falling for years but were starting to reactivate. Investment in housing was also falling, moving from 7.8% of the GDP in 1994 to 4.9% in 2005 and bottoming up in 2006. Some companies saw this as an opportunity to raise capital to support residential expansion. Three companies joined the residential index that year: Colonia RE, Gagfah and Patrizia Immobilien. Just few months later, the GFC came and the Eurozone crisis right after it, stemming any potential for the sector to grow.

Building permits and completed housing units in Germany



Housing investment in Germany



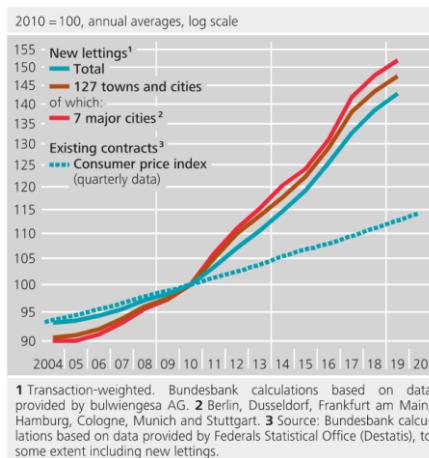
Source: Deutsche Bundesbank

Paradoxically, these two financial crises boosted the expansion of the residential property industry in the biggest economy of the continent. Germany was seen as a safe place to be in the middle of the turbulence. Many talented workers started moving from other countries in Europe and the Middle East into its largest cities, revitalizing population growth and the wider economy. New countries joining the European Union, a stronger presence of financial institutions in Frankfurt and Munich and the expansion of *tech hubs* in cities like Berlin, Hamburg and Dusseldorf also played a key role in this new residential boom, especially in seven major cities. Urbanization rates moved from 73.1% in 2001 to 75.1% in 2014 and 77.4% in 2019, supporting not only an upward trend in both property prices and rents but also the strong performance of listed property companies focusing on residential. Four new constituents joined the index between 2009 and 2013: TAG, GSW, LEG and Deutsche Annington and four more between 2014 and 2015: TLG, Adler RE, Grand City Properties and ADO.

Residential Property Prices in Germany



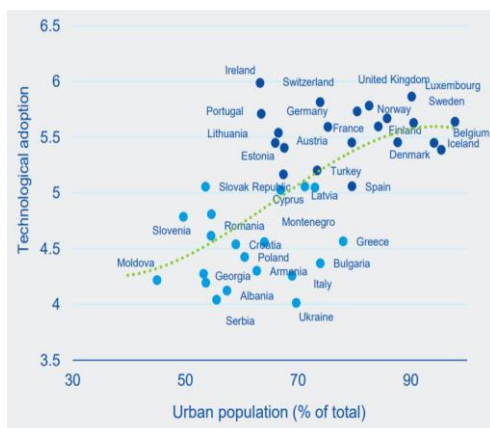
Rents for Apartments in Germany



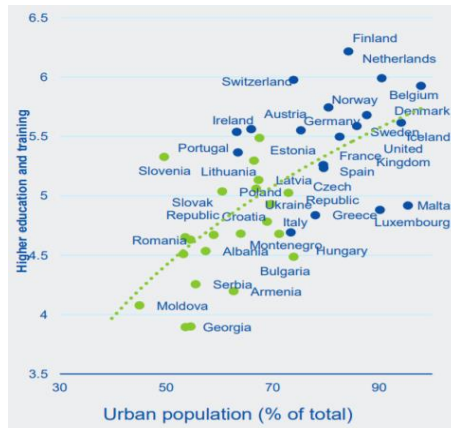
Source: Deutsche Bundesbank

After years of domestic growth, the sector was ready for some consolidation and a further expansion abroad. In 2013 GSW Immobilien was acquired by Deutsche Wohnen and less than two years later Deutsche Annington and Gagfah merged creating the largest residential company in Europe: Vonovia. At the same time, the strong urbanization changes observed in Germany were becoming palpable in some neighbour countries. The technological adoption, labour productivity, social services, quality of education and infrastructure conditions converted several countries in Northern Europe into interesting destinations for new start-ups, financial institutions, highly educated students and qualified workers. Cities like Stockholm, Dublin, Amsterdam and London were leading the new urbanisation trends and required new developments in both the residential and commercial property markets to satisfy the growing demand for real estate.

Urbanisation and Technological Adoption (2015)

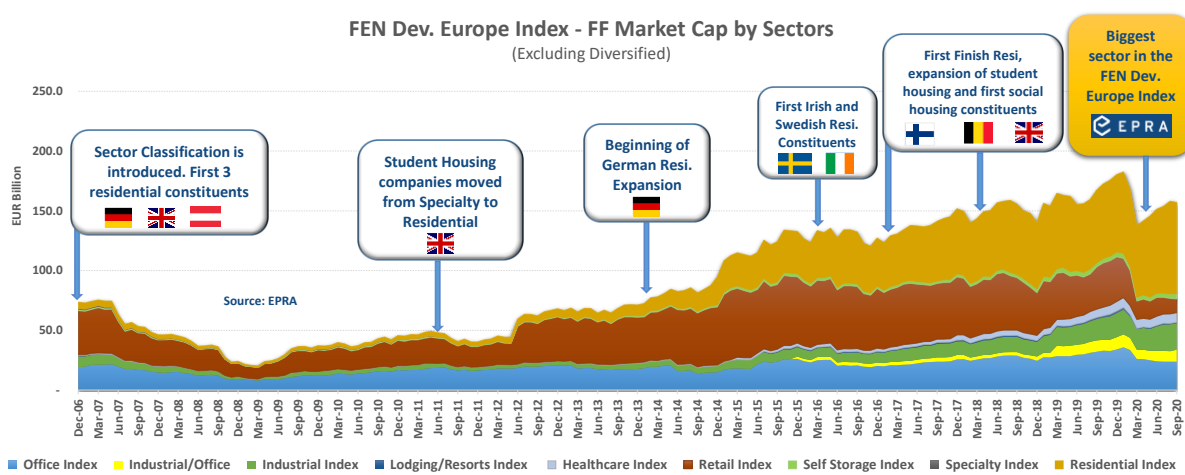


Urbanisation and Education & Training (2015)



Source: BBVA Research, UN & World Bank

Following the example of their German peers, several property companies in those countries saw interesting growth opportunities in both the real estate markets and the capital markets. Between 2016 and 2018, nine new residential companies joined the index, four of them considered traditional landlords in new geographies: Irish Residential Properties (Ireland), D. Carnegie (Sweden), Victoria Park (Sweden) and Kojamo (Finland).; three from the already existing student housing sub-sector: Empiric Student Property (UK), GCP Student Living (UK) and Xior Student Housing (Belgium); and two more in a completely new business model, social housing: Civitas (UK) and Triple Point Social Housing (UK). Finally, Vonovia started its international expansion mainly following an acquisition strategy, then three constituents were deleted from the index and incorporated into the Vonovia's corporate structure: BUWOG (Austria), Conwert Immobilien (Austria) and Victoria Park (Sweden). This is how the FEN Developed Europe Residential Index became the biggest sector in the region in Aug/2017 and also overpassed the FEN Developed Europe Diversified Index in May/2020.



Source: EPRA

B. STUDENT HOUSING: TRADITIONAL VS NEW PLAYERS

Nowadays, one of the most attractive alternative property sectors is student housing. Generally considered a sub-sector within the traditional residential sector, it is formally known as “purpose-built student accommodation” (PBSA) in the EU, which refers to housing owned by property companies and specifically built for university students by private developers. These properties commonly take the form of self-contained studio or “cluster” flats with private kitchens but shared living space, or either modern halls of residence containing en suite bedrooms with shared kitchen, dining and living facilities.

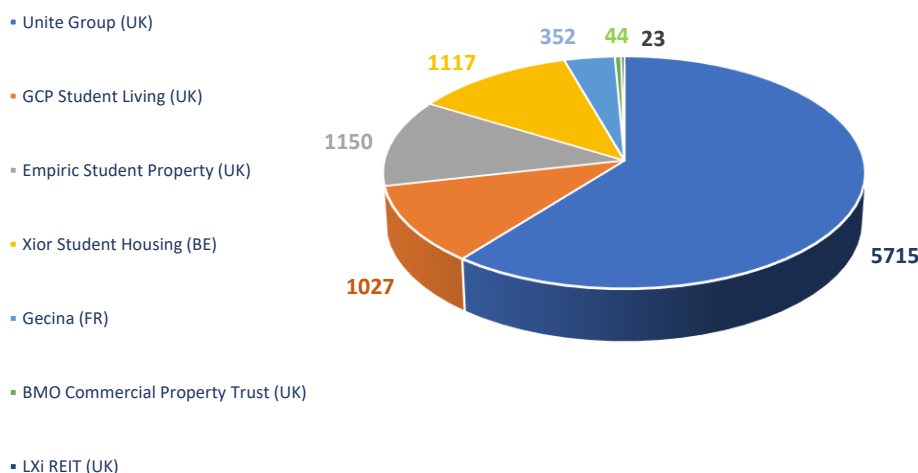
The unprecedented expansion of the global middle-class, that according to Brookings increased from 1.8 billion in 2009 to about 3.5 billion people in 2017 and is expected to grow to 5.3 billion by 2030¹, had a clear impact on the residential sector. Increasing purchasing power is improving people's mobility with different purposes such as leisure, business or accommodation changed traditional behaviour and consumption patterns. In terms of education, the number of tertiary education students has expanded by 5.8% per annum over the past five measured years according to UNESCO, with 5.3 million students crossing borders to study in 2017. In Europe, in 2014 there was a total of 4 million international students. By 2020 the total number is expected to surpass 7 million. This movement increased the student accommodation demand and hence, student housing started to play a key role within the residential sector.

¹ In 2020 the worldwide population is around 7.8 Billion.

Not surprisingly, the “student housing” expansion it is also appreciable from our index point of view: in 2006, when the FEN Developed Europe Sectors Indexes were introduced only one constituent was specialised in “student accommodation”: Unite Group (UK)² representing a full market cap of EUR 997 Million, at that time the company was classified within the FEN Developed Europe Specialty Index. Then, in 2011 the company was reclassified within the diversified sector and it was only in 2014 when Unite Group was classified within the FEN Residential Index. Today, as of September 2020, there are three new constituents specialized in student housing: Empiric Student Property (UK), GCP Student (UK) and Xior Student Housing (Belgium) that together represent a market cap of EUR 5,771 Million.

Furthermore, beyond these pure student housing players, there are other constituents within the FEN Developed Europe Index that, despite being classified in sectors other than residential, are gaining some exposure to the student housing subsector. Some examples are Gecina (France), a traditional “office” company that started to explore this new subsector and currently counts 3,200 beds among its eight student accommodation offerings; or BMO Commercial Property (UK), classified as “diversified” within the FEN Index series, that has in their portfolio a purpose-built student accommodation located in Winchester with 499 units let to the University of Winchester.

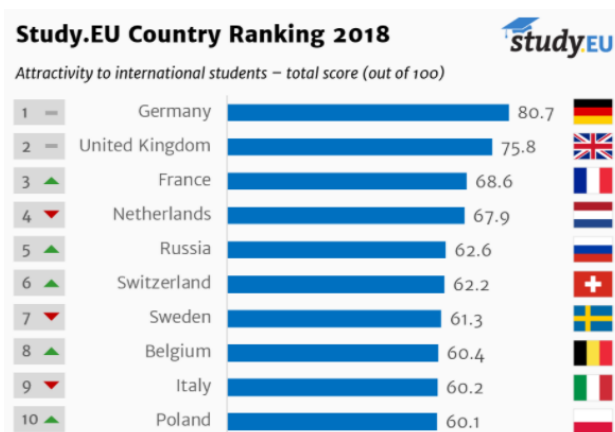
**FEN Developed Europe Index
Student Housing Portfolio in 2019, Million of EUR**



Source: EPRA

In terms of geographical exposure, it is noticeable that most of the student housing in Europe and therefore, in the FEN Developed Europe Residential Index, are located in the UK. The country is the second most popular destination for international students, positioning it as the largest market for student housing assets outside North America. In 2020, and according to a research done by StuRents, the UK PBSA has grown by a net increase of 2.6%, with more than 25,000 new beds coming to the UK market. This growth has been progressive and constant in recent years as the British market has seen consistent investment in this asset class since the 2008 downturn, with 4.0% of all UK investment volume on average since 2009 being committed to the sector. This rose to an average of 5.8% between 2015–18, or EUR 4.59 Billion per annum, according to data provider Real Capital Analytics. These are impressive numbers, in Europe’s most liquid commercial real estate marketplace. Nevertheless, the provisions rates offered by the UK are not yet enough to cover the current international demand in Europe. This and the elevated UK prices for student housing, despite being lower than private housing rent prices, led the pace against other European countries famously known for their student body populations, such as the Netherlands, France, Germany and Spain.

² Unite Group recently acquired Liberty Living, one of the largest student-housing portfolios in the UK for a total of EUR 1.6 Billion.



Source: www.study.eu

The table below looks at the annualised total returns of the pure Student Housing players of the FEN Residential Index, with Unite Group (UK) and Xior Student Housing (BE) being the best performers. The outstanding performance of Xior Student Housing (BE) is partly driven by the geographical evolution that the company has experienced in since inception. The company started its business acquiring properties in several cities of the Flanders region of Belgium, following which it expanded its portfolio to The Netherlands, Spain and Portugal. It now has the most exposure in The Netherlands with 42 properties representing 59% of its portfolio.

Pure Student Housing Players		
Annualised Total Returns (EUR) as of 30/09/2020		
	3 years	5 years
Unite Group (UK)	6%	1%
GCP Student Living (UK)	-6%	-6%
Empiric Student Property (UK)	-16%	-14%
Xior Student Housing (BE)	14%	22%

Source: EPRA

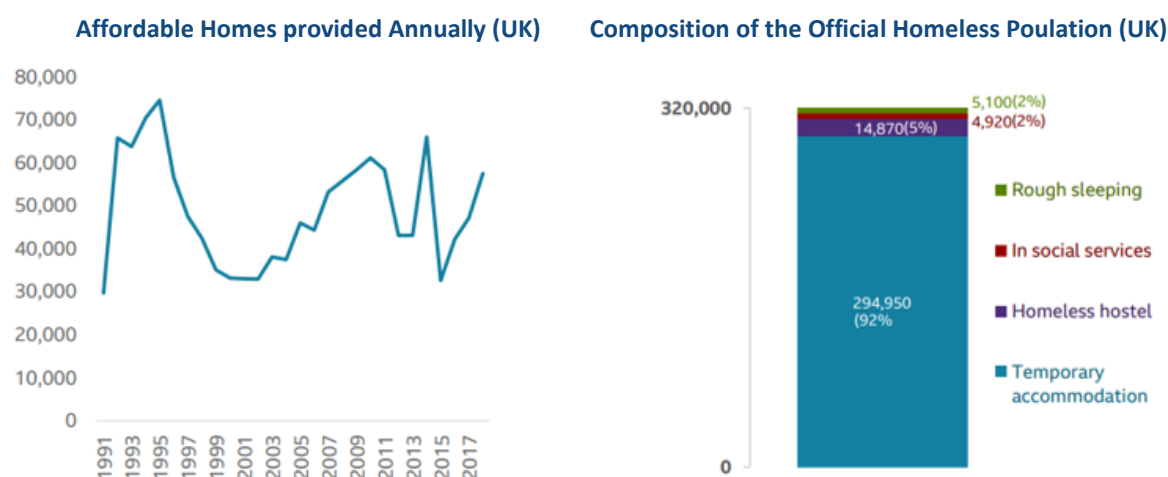
The growing attractiveness of student housing as an alternative investment within the real estate sector could be justified for several reasons, one being that it still enjoys being considered a novelty within the property sector and is far from being saturated as demand remains unfulfilled. COVID-19 has undeniably affected the property sector; however, the student housing asset class might be better placed to handle the fallout better than other residential subsectors. Despite the universities' limitations, several surveys reveal that student life is about more than just going to university and studying. Student housing accommodations provide the full experience, for many, it could be the first chance to live away from home for many students, while also teaching independence and widening horizons by placing students in a new city or country. These reasons have motivated plenty of students to move away from home for years and will continue to attract new generations of students in the post-Covid-19 period.

Another important point here is property yields associated to this property type, which are higher than those provided by other traditional residential market assets. According to Savills Research, during the last quarter of 2019, student housing properties located in The Netherlands provided dividend yields above 5%, the ones located in Spain reached 5% and the ones located in Germany, UK, France or Ireland reached a dividend yield between 3.7% and 4.8%, making this residential subsector a very interesting option for many investors.

C. SOCIAL HOUSING: EUROPEAN LEADING A NEW BUSINESS MODEL

“Social Housing” is still a new concept for many players in the real estate framework and is term without a clear consensus on its meaning, which often leads to misunderstandings. It could be defined as the accommodation provided by the state to low income citizens for renting. However, when it comes to the listed real estate sector, we could define social housing as any rental housing owned by property companies with the aim of providing affordable housing to vulnerable³ people in society, where the counterparty to the lease is a housing association or a local authority that provides the household to the specific citizens. Furthermore, sometimes the term social housing could also imply more specific assets classes with specific adaptations for people with different types of disabilities.

Social housing issues have become more relevant in Europe, especially since the GFC. In this context, the UK appears as the frontrunner on the competition for finding efficient solutions for these issues involving the listed real estate industry. Currently, millions of people are stuck living without a permanent home or the help they need to get one. According to the Ministry of Housing, Communities and Local Government of England, in April 2018 there were 1.11 million households on the waiting lists of the local authorities, down from a peak of just over 1.8 million in 2012. Lower profit margins are often associated with social housing, which might explain the home builder’s lack of enthusiasm for this type of property. When looking at the evolution of the affordable homes provided in the UK from 1990 to 2017, there is a gradual improvement on the number of affordable homes, although still not enough to take care of the most vulnerable citizens looking for permanent accommodation.



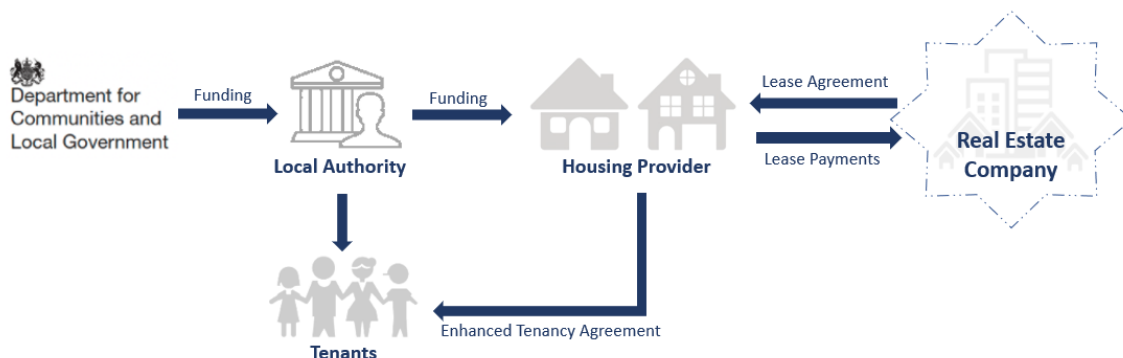
Source: UK Ministry of Housing, Communities and Local Government⁴

The Government’s role in social housing is crucial, but it is also limited due to the public budgets constraints, which can have a big impact on society. Government subsidy to support investment in new housing and regeneration has generally been declining, but has also become more targeted on public spending shortages, among other reasons. In the UK, subsidies have been reduced significantly and housing associations are expected to raise private capital, allowing rents to be set at up to 80% of the market rate. For these reasons some real estate players began to supply the increasing demand, and they started to invest in social housing properties, creating a new funding model where the households’ rents are usually fully paid, and therefore guaranteed by local authorities using funds provided by the central government.

³ The most vulnerable groups in society such as people with low income that might also suffer physical or psychological issues, need special protection of their rights taking into account their physical and psychological specificities in order to help them cope better with disasters.

⁴ Available on <https://www.gov.uk/government/collections/affordable-housing-supply>

Business model structure

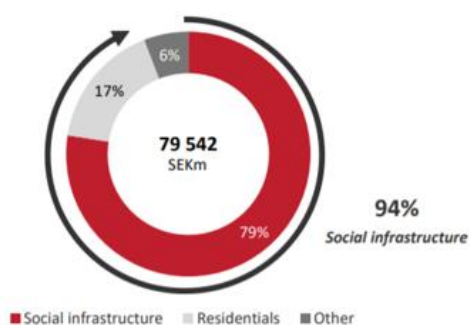


Source: EPRA

The presence of this asset class within the FEN Developed Europe Residential Index is currently started by two market leaders within the sector: Civitas Social Housing (UK) and Triple Point Social Housing REIT (UK). Both companies launched their IPOs recently, in 2016 and 2017 respectively, and joined the Index in 2018. Today, as of September 2020, they represent a combined full market cap of EUR 1,206 Million. Both companies have robust portfolios: Civitas Social Housing owns 613 individual properties located across 164 local authorities and receive property services from 15 housing associations, which provide long-term homes for 4,216 people. Triple Point House REIT counts 404 Supporting Housing properties representing 2,872 units across the UK.

Beyond these pure social players, there are other companies within the FEN Developed Europe Index that count some affordable homes exposure in their portfolios. LEG Immobilien (Germany) currently provides affordable homes to 365,000 people and is planning to invest in new construction projects to help ease the urgent need for additional affordable living space in high-demand metropolitan areas. Grainger Trust (UK) owns 496 operational affordable units in its portfolio, and it is also planning to achieve a 40% exposure into the social housing sector. Also, after the acquisition of Hemfosa (Sweden), Samhällsbyggnadsbolaget (SBB) (Sweden), the latter became the Nordic region's largest social-oriented company and one of Europe's largest owners of social infrastructure, covering properties specialized in community services, offices, schools, care and adapted housing and the judiciary.

Property value by property type



Breakdown of rental income at contract level

Classification	Rental income, SEKm	Total, %
Residential	774	15
Group Housing	315	6
Government	2 462	47
Indirect government	1 060	20
Othe	607	12
Total	5 217	100

Source: SBB 2019 AR

Overall, the key idea of social housing is based on its affordability (vs. private renting) and tenancy. This provides better life conditions as it improves health and wellbeing of vulnerable citizens, more control over their homes, and the chance to put down roots. It also saves government money. In terms of investments, it seems to be a

win-win asset class for governments, property companies, investors and tenants due to several reasons: 1) we are facing a housing deficit on social housings where demand is expected to grow over time, 2) it is financially very secure compared to other real estate properties as rents are founded directly by the local authority, 3) it provides very attractive risk adjusted yields (c.5% in the case of Civitas Social Housing and Triple Point Social Housing REIT) and 4) it has a clear social impact. On the table below we can have a look to the annualised total returns of the individual pure Social Housing players of the FEN Residential Index within 1 and 3 year time horizon, showing both constituents an outstanding performance on the short term.

Pure Social Housing Players Annualised Total Returns (EUR) as of 30/09/2020		
	1 year	3 years
Civitas Social Housing (UK)	19%	-3%
Triple Point Social Housing REIT (UK)	12%	1%

Source: EPRA

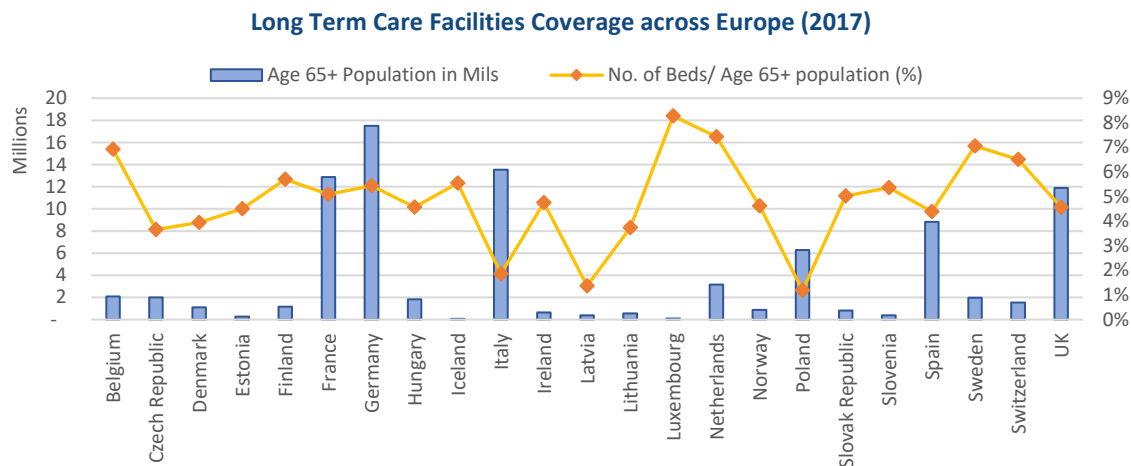
D. SENIOR LIVING & NURSING HOMES: RESIDENTIAL OR HEALTHCARE?

At first glance, senior homes and nursing homes are just like other residential units, a place where people live rather than carrying out industrial or commercial activities. Both types of properties are usually categorized under a generic Care Homes label. However, the services provided by the operator becomes the watershed that EPRA uses to make the distinction between residential and healthcare properties. Nursing homes generally provide additional medical services and utilise special equipment to maintain the health and wellbeing of the habitant. Senior living houses are just residential units with few additional services targeting this specific population segment, good examples are the recreational and catering services that can be added to the rent paid by the tenant, usually offered by external providers and so different from room services provided by hotels or lodging operators.

Back in 2012, the FEN Developed Europe Index had very few constituents with exposure to the residential care or care home market. Cofinimmo (Belgium), Deutsche Wohnen AG (Germany), Gecina (France) and ICADE (France) were investing in care homes to diversify their core strategy. Except for Cofinimmo, the rest of the constituents were limiting their exposure to 25% or below. TAG Immobilien AG was the only player in the residential care market. Due to the ambiguous nature between the two property types, constituents operating this business model can be included in the residential or healthcare indexes depending on the property type, residential for senior living residences or healthcare for nursing homes. However, the scope of the two sectors is much wider. For example, Samhallsbyggnadsbolaget i Norden AB ("SBB") has always been focused on social infrastructure and its portfolio includes residential properties that are geared towards independent elderlies. Assura is focusing heavily on primary healthcare properties with a few community centres that provide routine medical assistance for old people.

The main driver for this niche market is simple, aging population. Across Europe, around 65% of the current population is aged between 15 and 65 while 20% of the population aged above 65, as of 2019.⁵ Statistics revealed that the life expectancy has risen, on average, by more than two years per decade. Estimates from Eurostat suggest that this percentage will increase steadily in the next three decades, reaching 30% by 2050. Hence, there is a clear demand for care homes, but the supply is barely catching up. The diagram below shows how the number of beds available in long-term care facilities is currently covering less than 10 % of the population aged 65 or more across Europe.

⁵ Ageing Europe: Looking at the lives of older people in the EU (2019)



Source: Eurostat

Given the highly localised nature of care home markets, typically a radius of 5-10 miles, market power was held in local authorities, leaving a highly fragmented market. Simultaneously, many governments were cutting budgets on healthcare as many European economies were still recovering from the aftermath of the global financial crisis. As the trend of aging population continues, the increasing costs involved pose a challenge to many European governments. In most member states, 79.5% of health expenditure was funded by the public sector in 2017.⁶ As a result, the number of public care homes was either decreasing (Croatia, the Czech Republic, France, Germany, Norway, Slovenia and the UK), or growing at a slower pace than private care homes (Cyprus, Lithuania, Romania and Slovakia). Malta and Spain are exceptions to this trend, with the number of public care homes increasing faster than private ones in both countries.⁷

As we can see from the graph above, most of the aging population is clustered in Germany, France, Italy, Spain and the UK. Companies with expertise in care homes are leveraging their credentials to rapidly capture the growth potential of these markets. Aedifica has just completed its first acquisition of 92 UK properties, followed by a rapid fundraising of GBP 450M in fresh equity. Before this transaction, its geographical exposure was limited to only Belgium, the Netherlands and Germany. Along the same line of reasoning, Confinimmo was exposed to Belgium, the Netherlands and France only before making its first investment in Germany and Spain in 2014 and 2019, respectively. ICADE Sante, a subsidiary of ICADE, was focusing solely on French-based private clinic facilities. In 2018, it made its first investment in healthcare properties in Italy.

Raising urbanisation also drives up the prices of care homes that are close to urban centres. As more young people work in cities, the growing demand for residential properties puts pressure on the price of land banks available for other types of developments, including care homes. This attracts more capital competing for prime assets and hence lowering the potential return for property owners. This also deters some of the traditional residential players from investing heavy upfront capital. Instead, they try to capitalise on the trend by making their residential units more 'senior friendly'. Vonovia, one of the leading constituents within our index, allowed certain charitable organizations such as Order of St. John and other welfare organizations to set up contact points directly in their buildings. The 'Lumo' apartments brand owned by Kojamo has also modified some of its units to cater to the needs of the elderly. Residents can also request on-demand services such as cleaning, valet shopping and physiotherapists consultations if necessary. LEG Immobilien AG and TAG Immobilien are also offering similar support to its senior residents as well.

In contrast, Deutsche Wohnen is moving away from its pure residential portfolio through planned acquisitions of nursing facilities with above average qualities and locations. Since joining the index in 2003, it has been very

⁶ World Health Organization (WHO)

⁷ Eurofound (2017), Care homes for older Europeans: Public, for-profit and non-profit providers

active in acquiring assets in Germany, including 2 nursing facilities in Leipzig (156 places) in 2012 and 4 facilities in Berlin (425 places) in 2013. In 2016, it expanded its portfolio further by acquiring 28 nursing homes from Berlinovo for EUR 420M, before purchasing another 30 homes for EUR 680M in 2018. 13 of the nursing facilities are situated in the Hamburg city area and rest are scattered across the country. In terms of return, geographically diversified, pure-play players with high exposure to care/nursing homes are generally outperforming the ones that focus solely on one domestic market. As of Dec 2019, Aedifica has a 3-YR total return of 80.88%, which is significantly higher than UK focused players such as Target Healthcare (20.3%) and Impact Healthcare (19.5%).

The growth of private care homes is indeed narrowing the gap between the ageing population and the available living space for the elderly. However, a private care home is only a solution for people who can afford it. Before COVID-19 swept across Europe, most of the governments were limiting public expenditure in healthcare and senior living facilities, a clear example was the UK's spending on long-term care facilities, which was increasing by just 1.8% per year between 2014 and 2018.⁸ As society becomes more aware of the importance of healthcare, governments now have stronger reason to make long-term care homes more accessible. Residential homes in city-centres may lose their appeal for now as a new round of lockdown restrictions kick in, however. Regardless, the sector is supported by strong fundamentals and will continue to flourish in the long run.

III. A quick look at other relevant players, innovation and ESG⁹

Until now we have been completely focused on those companies who are constituents of the FEN Developed Europe Index and classified as residential. However, there are some other listed companies that sit outside of this category who also play a relevant role in the residential segment. Such is the case for homebuilders and companies following a hybrid business model by combining rental and home construction, companies who do not satisfy the index inclusion criteria in terms of size or liquidity and finally index constituents following a diversified rental model by investing in residential properties and some other sectors. Here we discuss the recent evolution of these companies and make a quick review of innovation and sustainability for the whole sector.

A. HOME BUILDERS: CONTINENTAL EUROPE CATCHING UP

As discussed in previous sections, home building is not considered a relevant real estate activity for the FEN Global Index Series, except in the APAC region and emerging markets. The key reason is that historically both in North America and Europe, home-building has been considered an activity closer to construction than the real estate industry, which has led it to be analysed in a different framework within a different category in the main industry classification methodologies and even excluded from the REIT regime in some countries. Furthermore, for years, in Western Europe this industry was mainly represented by the British companies, with just a few players in the rest of the continent, with most of them in France. This started to change in the last decade.

In 2012, the aggregated market cap of all the UK homebuilders was around EUR 15.2 Billion, far above the EUR 2.4 Billion of their peers in continental Europe and Ireland. The demographic changes observed in the continent from 2014 also led to significant changes in this industry, with several new players joining the public markets in countries like Spain, Ireland, Sweden and Germany. In 2018, the UK players totalled EUR 39 Billion in market cap whilst all the other European homebuilders reached EUR 16 Billion, already there has been a significant reduction in this gap. At the same time, many companies have been introducing new services and development concepts and styles, focusing more on the living experience at home with a more social and environmental approach, moving away from a simple home-building structure into a wider *Residential Development* business model. Nowadays, EPRA has identified almost 30 residential developers in Developed Europe with more than EUR 25 Million in full market cap: 14 in the UK, 5 in France, 3 in Ireland, 3 in Spain, 2 in Sweden, 1 in Denmark and 1 in Germany. In total, these 29 companies currently present EUR 47.8 Billion in market capitalization, 24% of it out of the UK.

⁸ Office for National Statistics – UK Health Accounts (2018)

⁹ Environmental, Social and Governance (ESG)

FEN Dev. Europe Residential Index vs European Residential Developers



Source: EPRA & Bloomberg

In order to identify the main differences in terms of investment performance between residential landlords and developers in Europe, EPRA has created a synthetic portfolio in Bloomberg covering the period Jan/13 to Sept/20 for the 29 companies previously identified. Here we present a very short analysis for this portfolio using the FEN Dev. Europe Residential Index as benchmark. The first and most important difference is volatility. It is well known that home-building is a procyclical activity, with strong performance during economic booms and moderate growth in recession times, a total cycle of around 5 to 10 years depending on the country. This clearly makes companies in the sector more volatile than the residential landlords, who typically have medium-term stable lease contracts and depend more on the tenant's quality than external conditions like materials cost or currency fluctuation, making them less exposed to the economic cycle. This can be seen on the table below, showing an annualized standard deviation for the residential developers of 29.46% against 18.29% of residential landlords for the whole period, which is very stable when comparing the same figure for the sub-periods 2013-2016 and 2017-2020.

In the case of the developers, it is worth mentioning that the first period was highly influenced by the extreme volatility showed by the British companies during the second half of 2016 following the Brexit referendum, then the second period shows a lower volatility, closer to landlords but still much higher. In the same way, the ex-post 95% VAR is in all the cases 50 bps more negative for developers than landlords and a more negative skewed towards returns distribution, both with important consequences from the risk management perspective.

Comparative Risk/Return Profile in Dev. Europe Residential: Developers vs Landlords

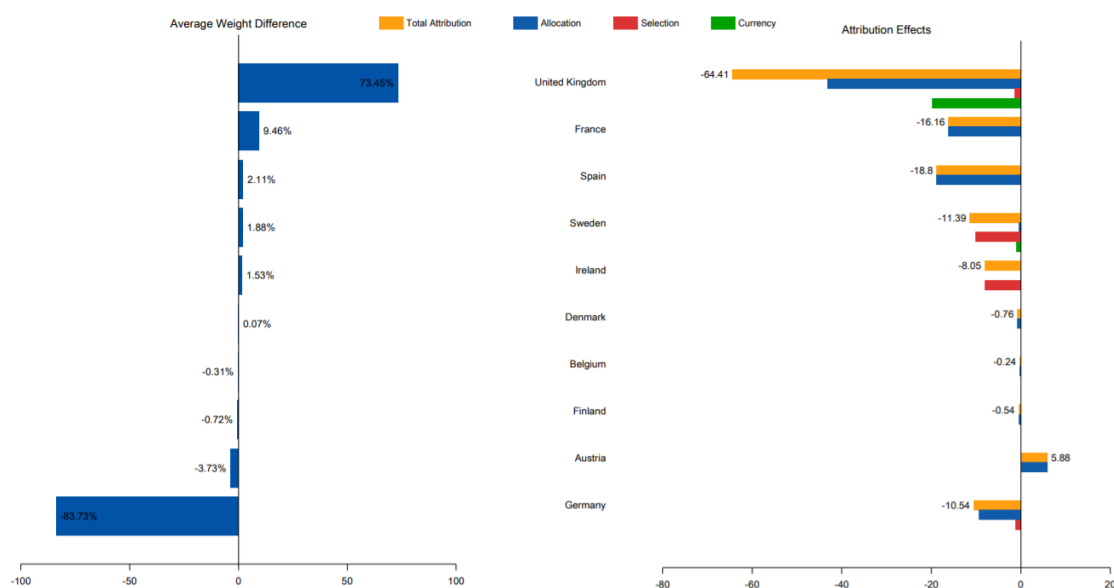
Risk/Return Statistics	European Residential Developers	FEN Dev.Europe Residential Index	European Residential Developers	FEN Dev.Europe Residential Index	European Residential Developers	FEN Dev.Europe Residential Index
	(Jan/13 - Sep/20)		(Jan/13 - Dec/16)		(Jan/17 - Sep/20)	
Total Return	141.93%	266.93%	127.29%	104.42%	6.44%	79.49%
Mean Return (a.a)	24.84%	29.44%	42.84%	31.49%	8.11%	27.28%
Stan. Dev. (a.a)	29.46%	18.29%	30.82%	18.47%	27.94%	18.10%
Skewness	-1.86%	-0.19%	-3.07%	-0.09%	-0.12%	-0.31%
Var 95% (ex-post)	-2.43%	-1.68%	-2.43%	-1.84%	-2.40%	-1.48%
Sharpe Ratio	0.589	1.116	0.941	1.169	0.218	1.059
Correlation	0.441		0.448		0.433	
Capture Ratio	0.548		0.726		0.360	

Source: EPRA & Bloomberg

In terms of performance, the difference is also significant with a total annualised return of 24.84% for developers and 29.44% for landlords. In this case the country allocation and currency effect played a significant role. As observed in the graph below, the developers portfolio has massive positive active weight in the UK and negative active weight in Germany and Austria. This rendered it extremely sensitive to the negative market performance post Brexit referendum and made it miss the strong expansion of the residential sector in continental Europe – especially for the period Jan/17 – Sep/20 – and reinforced by a weak performance of the GBP against the other

European currencies. This is also observed in a much lower capture ratio in the second period (0.36) compared to the first period (0.726). However, it is important to mention the significant and stable correlation between the two sectors (0.44), making evident the strong connection between them in terms of underlying fundamentals and complementary business models. Given the similarities and recent trends, especially in terms of growth of residential developers in continental Europe, we consider it extremely useful to look at the new developments in this industry and gradually incorporate these kinds of players into the more general European real estate scope.

European Residential Developers: Performance Attribution and Active Weights
(Compared to FEN Dev. Europe Residential Index)



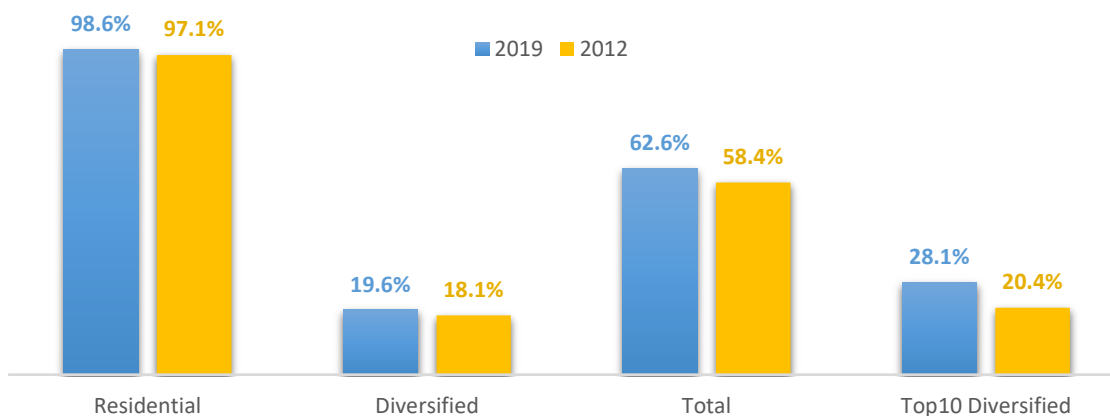
Source: EPRA & Bloomberg

B. HYBRID MODELS, DIVERSIFIED STRATEGIES AND SMALL CAPS

In this section we turn the attention to other public companies playing a relevant role in the residential property market in Europe, but not classified as residential landlords in the FEN Developed Europe Index or out of the pure home building business. Let us start with all the other index constituents with exposure to residential properties. In 2012, the index counted 83 constituents, where 34 (41%) had direct exposure to residential properties through their property portfolios. In 2019, the index had 104 constituents and 35 of them invested in residential real estate (35%), however, the average exposure to residential properties of all those companies, both diversified and pure residential, has been increasing gradually in the last years, moving from 58.4% in 2012 to 62.6% in 2019.

The smaller proportion of companies investing in residential properties can be attributed to the market consolidation of the pure residential players. As already explained in the previous section, there has been significant activity in this segment in terms of M&A activity since 2013, with companies like Vonovia, Detusche Wohnen and Adler standing out as the main protagonists. At the same time, some of the companies following a diversified strategy have increased their exposure to the sector, in particular some of the big players like Covivio (23% in 2012 vs 31% in 2019) and the Swedish Wallenstam and SBB, while some other big players like Gecina and Colonial are again increasing their exposure given the strong fundamentals of the sector. In light of this, it is possible to conclude that there is a strong appetite for residential properties across several of the biggest diversified companies in the continent.

FEN Dev. Europe Index Constituents Average exposure to Residential Properties



Source: EPRA & Bloomberg

On the other hand, there are some companies like Altarea, St. Modwen, Care Property Trust and Inland Homes that operate some hybrid models in the residential market, mainly combining the traditional leasing business with some other activity like home building, strategic land development or long term financial leases. Giving their hybrid nature, they are not currently included in the FEN Index Series, although they play a very important role by completing that part of the industry not well attended by the traditional landlords and also developing new products and services in both well established and growing markets.

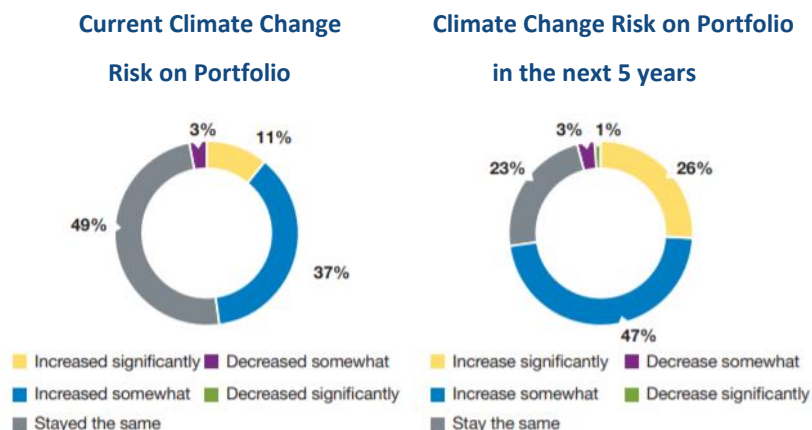
Finally, there are some other interesting small companies, most of them REITs, making their way to join the index in the coming years. Many of these companies operate in markets with a well established residential industry and it is just a matter of time for them to satisfy all the criteria for index inclusion, some good examples are Home Invest (Belgium), Ovaro (Finland), PSR REIT (UK) and VBare Iberian Properties SOCIMI (Spain).

C. INNOVATION, SUSTAINABILITY AND SOCIAL IMPACT

There is no doubt that the *Environmental, Social and Governance* (ESG) represents one of the most important areas where all the real estate stakeholder are focusing their attention to, especially in Europe where its evolution seems to create guidance for other regions in the world. In case of the public markets, most of the elements associated to being a listed investment already create good minimum governance standards, then scoring well in the “G” context, although there is still good space for improvement. However, the story is quite different in the other two areas.

Climate change has become a tangible risk for several businesses in the world and emerges now as one of the main threats to global sustainability, and real estate is not the exception. The whole real estate stock is responsible for around 40% of the global emissions, then, property companies play a key role in this discussion, as well as investors, regulators and citizens, who are paying much more attention to it. The last *Emerging Trends in Europe* report from PWC & ULI¹⁰ reflects this trend in a very clear way, where 48% of the 905 survey respondents considered that climate change risk has increased in their portfolio, and 73% expect that risk to become greater over the next five years.

¹⁰ *Emerging Trends in Real Estate, Climate of change. Europe 2020.* PWC & ULI.



Source: *Emerging Trends in Real Estate, Climate of change. Europe 2020. PWC & ULI.*

Many property companies are making considerable efforts to improve their ESG performance. In terms of reporting, several companies have already implemented the EPRA sBPR guidelines, increasing quality and scope of all the information reported. EPRA has seen considerable increase in the number of companies applying the guidelines and in the quality of the disclosed datasets, growing from 14 companies reporting 448 energy and water data points in 2012 to 90 companies and 2880 data points for the same indicators in 2020. Grainger PLC was the first residential company to implement the guidelines, receiving seven consecutive Gold awards between 2014 and 2020. Some other names such as Deutsche Wohnen, Empiric Student Property, Grand City Properties and Vonovia also appear in the list of the most awarded EPRA members in terms of sBPR reporting, in fact, residential companies represented just 4% of the total number of awards in 2014, but have risen to 12% in 2020.

The efforts are not limited to improving non-financial disclosure and reporting but also make the properties greener and more sustainable. By looking at the EPRA sBPR Database¹¹ it is possible to see improvements in terms of energy consumption, usage of renewable sources and greenhouse gas emissions (GHG). Considering only those companies reporting comparable metrics on a like-for-like basis, the total electricity consumption for all properties owned by those companies covered in the database fell -3.01% between 2018 and 2019, the total fuel consumption decreased by -1.04%, and the energy intensity changed from 0.1580 MWh/m²/year to 0.1494 MWh/m²/year. When looking at the residential properties it's a similar picture, with changes of -1.13% in electricity consumption, 0.58% in fuel consumption, and energy intensity of 0.1680 MWh/m²/year in 2018 vs 0.1629 MWh/m²/year in 2019 respectively. At the same time, the GHG average emissions (Scope 1 + Scope 2) decreased by -7.93% for all the properties and -5.21% for the residential ones.

These figures could suggest that residential companies are improving at slower rate than the industry as a whole, however, there are some key considerations. The first and most obvious one is comparing total portfolio aggregated data, an aggregated number (including all property types), with a specific property type (residential), which in this case is partially mitigated by analysing the same set of properties for each year. The second consideration is disclosure of tenants' information, which represents a much bigger challenge for residential companies who have thousands of tenants, mainly just individuals or households, making it more difficult to reach disclosure agreements and limiting the chances of obtaining more detailed metrics that allow for a clearer picture. Finally, the tenants' behaviour for residential properties is influenced by a completely different set of fundamentals to other commercial properties, most of them not directly related to the landlord's actions, at least in the ESG context. This last point is extremely important since it represents one of the biggest challenges for residential property companies, with most initiatives needing strong cooperation between landlords, regulators and individuals, however, it also represents the biggest opportunity to make real improvements in terms of sustainability for the sector.. Innovation might be one of the game changers in this context, where ideas like wooden-built properties, modular structures and cooling/heating interconnection between data centres and residential developments all provide enormous scope for new developments in this area.

¹¹ Available on <https://www.epra.com/sustainability/sbpr-database>

In terms of social and environmental initiatives, residential companies have developed some interesting programs in recent years. Xior Student Housing (Belgium) organised a successful 'Win a year free housing' campaign in Belgium, which offered students the chance to have the cost of their room covered for a year. Students from different residences in Belgium were asked to complete a wordsearch, in which all the words to be found described Xior's ecological approach. This served to raise awareness among students of their ecological impact both at home and at their student residences.

Another interesting example is Vonovia (Germany), who has created some pilot projects with job centres and refugee organizations to hire young tenants and refugees as Vonovia technical staff. The company recently launched the "Vonovia Bewegt" project, where they provide monthly cash subsidies to support social projects in Duisburg and Dresden. Vonovia is also involved in 4 different foundations that provide support to tenants, in cases of social hardship. Unite Group (UK) has taken a similar approach, launching the Unite Foundation in 2012, which helps talented young people to access a university education, with financial support from Unite Group, who have so far committed over £8.5 million to the foundation. The company also supports the Rock Trust, a youth homelessness charity in Edinburgh. The Rock Trust aims to end youth homelessness in Scotland by ensuring that every young person has access to appropriate services to help them come out of and stay away from homelessness. Kojamo's (Finland) work in this space should also be mentioned. They have managed to get all of their offices certified with the WWF Green Office certificate. The Green Office programme aims to reduce the environmental impact of offices, whilst also increasing environmental awareness among employees and achieving energy savings.

It is clear that residential property companies are committed to driving sustainability forward in the coming years. Together with EPRA, these companies are actively participating in the discussion around the implementation of the European Green Deal, which aims to achieve climate neutrality by 2050 and is looking to mobilize around EUR 100 Billion between 2021 and 2027¹². In the near future, we might expect to see landlords making additional improvements in terms of energy efficiency, renewable sources and GHG emissions, while tenants' behaviour and information disclosure are still the main challenges for sustainability in the residential real estate industry.

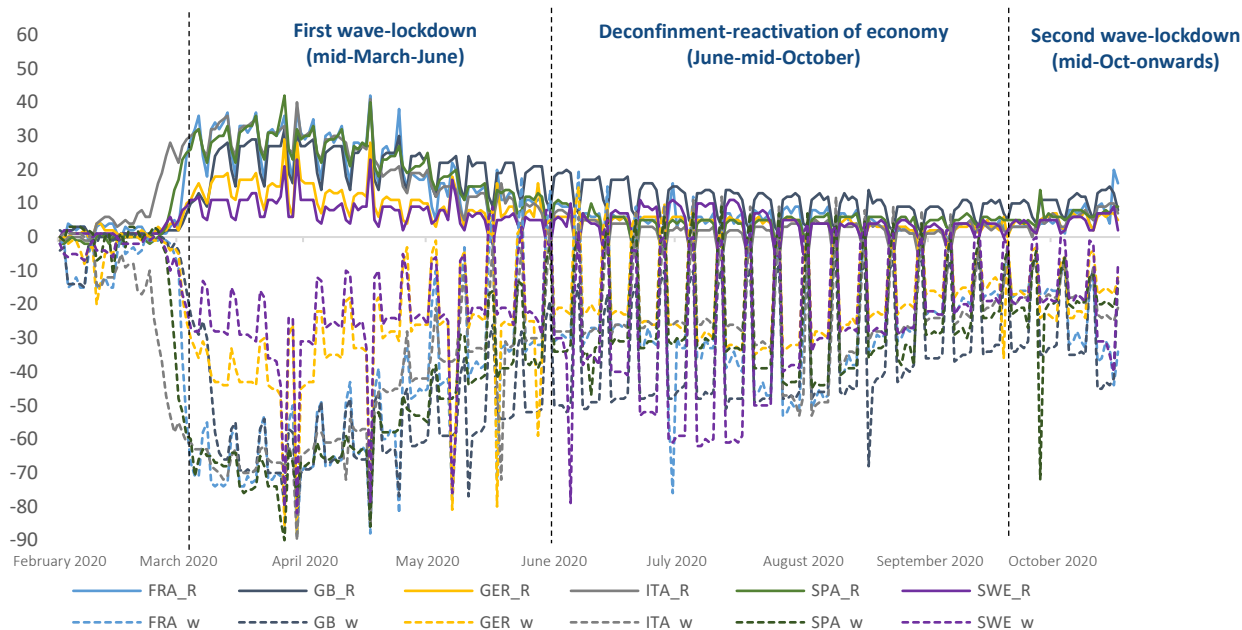
IV. What to look at in 2021 and onwards

A. THE POST-PANDEMIC WORLD: PERMANENT VS TEMPORARY CHANGES.

Property experts believe that the disruptive impact of the Covid-19 crisis will exceed that of the global financial crisis. Though it is believed that this crisis will not be the last to impact the sector, it has undoubtedly been one of the most severe. It has had a catalyser impact on accelerating previous trends and caused more structural shifts than cyclical ones. It is therefore important to consider Covid-19 as one of the key factors in causing long-term permanent changes in residential sector. The pandemic has disrupted many aspects of real estate investment and it has transformed the way we live and work. Social distancing and working from home (WFH) became a norm in most countries, impacting mobility in the office sector and reshaping the residential sector, as observed in the graph below which compiles mobility trends for residential areas and workplaces in some key European markets. It is expected that more remote working and online shopping will mean more time spent at home and a change to the preference for 'live,work,shop,play'.

¹²More information around the EU Green Deal can be accessed in the European Commission's website: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

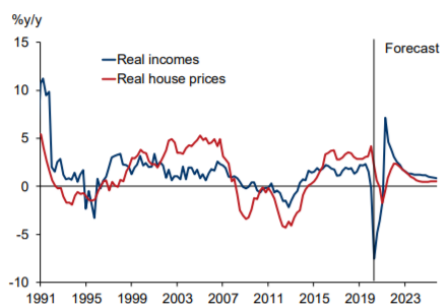
Mobility Score of Residential and Workplace Mobility in the Selected Countries



Source: Data compiled by EPRA from Google Covid19 Mobility (between 15/02/2020-30/10/2010). (*) France (FRA), GB (Great Britain), Germany (GER), Italy (ITA), Spain (SPA), Sweden (SWE). Denotation for R 'residential mobility' and 'w' workplace.

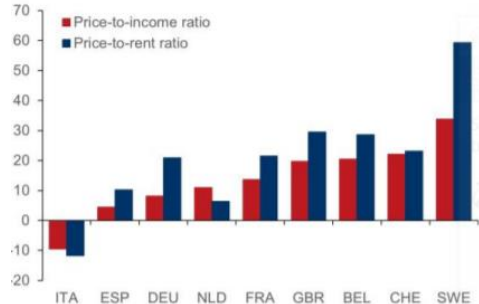
The residential sector is generally viewed as more resilient during downturns, although not immune to consecutive negative impacts. Many European governments have announced mortgage payment holidays, which should help to limit an increase in forced sales in the short term. Suppressed transaction activity should also result in some build-up of latent demand. But it is unlikely that these 'lost' sales will be quickly or fully recouped after restrictions are completely lifted once the second wave is over, as any return to normality will be gradual at best. General uncertainty may be expected to weigh on consumer sentiment for some time and the negative impact on earnings and employment might reduce overall demand for housing. Oxford Economics thinks that *"the risk of a housing correction may be considered greatest in markets where valuations were already stretched leading into the crisis... Valuations in Sweden are appeared particularly stretched, with the average price-to-income ratio around a third above its long-term average. Implied overvaluations are also significant in a number of other countries, averaging around 20% in Switzerland, Belgium and the UK"*¹³. Oxford Economics expects Eurozone house price growth to slow sharply in 2020 and to contract by just under 1% y/y in early 2021, driven by weaker household income growth.

Eurozone: Real House Prices and Incomes



Europe: Housing Valuation Metrics, 2019

Excess compared to 25y average (%)



Source: Research Briefing: Eurozone (Left). Impact of the Covid-19 crisis on European Listed Real Estate (Right). Oxford Economics.

¹³ Impact of the Covid-19 crisis on European Listed Real Estate. May 2020. Oxford Economics.

The different subsectors have their own dynamics and responses to the Covid-19, varying significantly across short- and long-term expectations. From a general economic perspective, lockdown measures, limited business activities, weaker income, lack of confidence, social distancing and reduced mobility had an immediate impact on all subsectors.

The expected short and long-term impacts on residential by subsectors

Subsectors	Short-term impacts	Long-term impacts
Multifamily & Apartments	Remained resilient with more stable, longer-term income profile and defensive investment characteristics. Decrease in new sales, in particular international sales, due to limited new completions during Covid-19 lockdown period.	Increased WFH may dampen urbanization rates and associated growth of housing demand in major cities but might support suburban areas with strong accessibility. Technological adaption, new online transaction platforms and also smart-home solutions will be accelerated.
Student Housing	Under pressure due to the mandatory distant learning policies, closure of higher education facilities. Although pre-paid rentals provided protection in 2020, decline in international students, in particular from Asia, might cause lower occupancy and cash flow from operations in the forthcoming period.	Online education could be more widely embraced, reducing demand for student housing. International mobility may also be constrained for an extended period.
Senior Living	Higher risk associated with occupiers' profile (age and health conditions). Additional operating costs related to required much higher protection protocols. Decrease in new entries in short term.	Aging population, as the fundamental demographic driver will remain and should continue to support the sector in the longer term.
Affordable housing	More government income support is required for vulnerable households, therefore household financial circumstances will correlate with the strength of national policy measures.	Depending on the magnitude of the economic downturn, budget cuts might put risk on developers' and investors' appetite.

Source : Compiled from JLL, Covid-19 Global real estate implications (2020); Oxford Economics. Impact of the COVID-19 crisis on European listed real estate (2020).

It is evident that the pandemic is posing immediate challenges for residential sector, and the question remains as to which of these might cause structural changes? If flexible working will be a norm in some industries, it may have more profound impact on the residential market, particularly in the larger cities. The average commuting time might impact location preferences if people go to office only few days a week, also changing urban vs suburban preferences. Cities able to attract talent, offer new jobs and vibrant urban lifestyle can still be hot spots for new residential developments and offer attractive investment opportunities.

From investors perspective, residential sectors have defensive investment characteristics, benefitting from stable cash flows. The pre-Covid19 period delivered a favourable return profile benefitting from increased demand and supply shortages in major European cities. According to PwC&ULI Emerging Trends in Europe 2021 report, investors are keen to keep residential in buy lists, and it is still considered as 'a safe haven and not affected by Covid-19'. As seen in the table below, most of the residential sub-sectors are ranked in the top places in terms of development and investment purposes. Also, the industry expects a raised 'pent-up capital' in the post-pandemic period and believes that residential and logistics will be benefited from it, as long as investors are convinced that the income is assured.

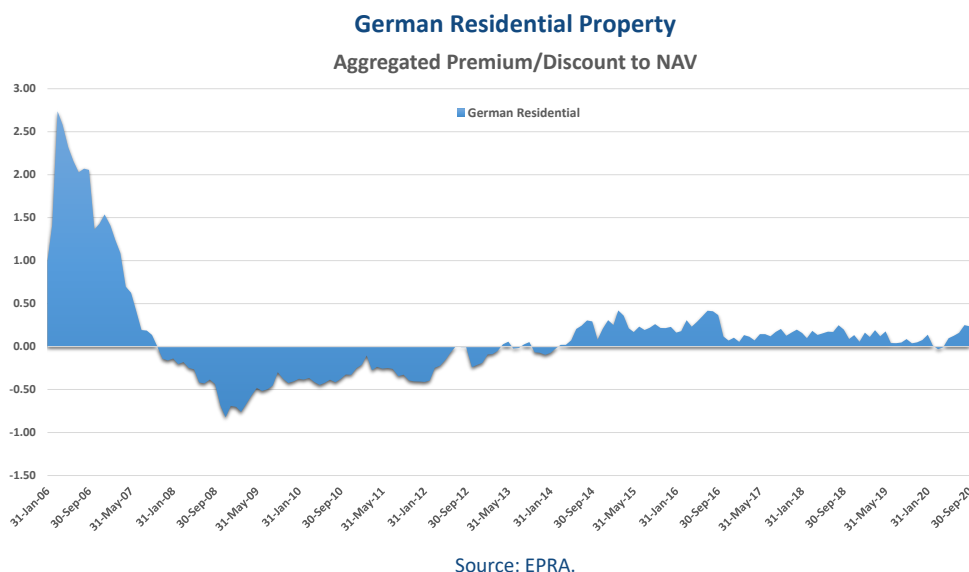
Sector Prospects 2021

Overall prospects		Rank	Investment	Rank	Development	Rank	Income
1	Data centres	1	4.55	1	4.45	1	4.30
2	Logistics facilities	2	4.51	2	4.39	3	4.21
3	Life sciences*	3	4.43	3	4.32	4	4.09
4	New energy infrastructure*	5	4.29	4	4.26	2	4.23
5	Industrial/warehouse	6	4.24	5	4.12	5	3.92
6	Health care	7	4.18	7	4.02	6	3.90
7	Private rented residential	9	4.12	8	4.02	8	3.84
8	Affordable housing	8	4.12	6	4.04	9	3.69
9	Communication towers/ fibre*	4	4.36	13	3.62	7	3.86
10	Social housing	11	3.96	9	3.92	13	3.65
11	Retirement/assisted living	10	4.00	10	3.87	11	3.66
12	Self-storage facilities*	12	3.94	11	3.85	10	3.68
13	Housebuilding for sale	13	3.71	12	3.74	12	3.65
14	Co-living	14	3.47	14	3.46	14	3.38
15	Student housing	15	3.36	16	3.28	15	3.16
16	Serviced apartments	16	3.33	15	3.32	16	3.12
17	Central city offices	17	3.21	18	2.93	17	3.10
18	Parking	20	3.08	17	3.06	18	3.10
19	Business parks	18	3.16	20	2.79	19	2.94
20	Flexible/serviced offices and co-working	19	3.08	19	2.80	20	2.79
21	Suburban offices	21	2.81	21	2.54	21	2.78
22	Retail parks	22	2.78	23	2.30	22	2.53
23	Leisure	23	2.66	22	2.49	23	2.38
24	High street shops	24	2.45	25	2.14	24	2.27
25	Hotels	26	2.21	24	2.15	27	2.01
26	City centre shopping centres	25	2.24	26	1.87	25	2.10
27	Out-of-town shopping centres/retail destinations	27	2.11	27	1.78	26	2.02

○ Generally good = above 3.5
 ○ Fair = 2.5–3.5
 ○ Generally poor = under 2.5

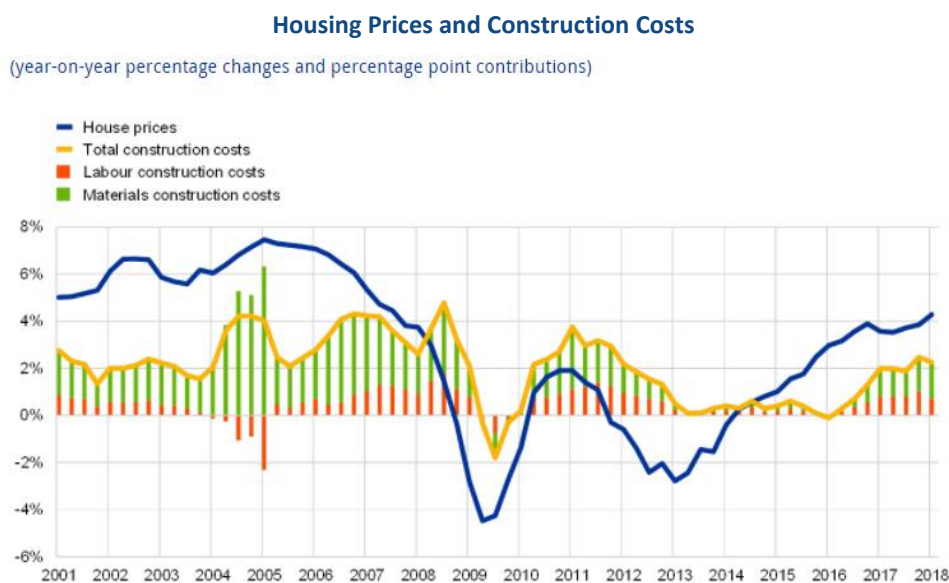
Source : PwC & ULI, Emerging Real Estate Trends in Europe 2021.

Currently, there is a growing perception of 'property as a service', making the residential sector even more attractive. Most of the European residential companies have stated that their operational performance is very strong with limited impact from the pandemic, seeing small changes in occupancy rates and high rent collections. Many of them also kept unchanged their performance guidance for 2020 and 2021, showing a strong resilience in moments when rising unemployment and weaker income might affect affordability to pay rents, helping to create lots of optimism around the post-pandemic evolution. German residential landlords and some other residential property companies continue trading at significant premiums against NAV, very close to short (1y) and the medium term (5y) average, reflecting a strong confidence from investors in terms of future performance for the whole sector. The near future remains full of uncertainty, but residential companies have proved to be resilient and continue to be at the forefront of new trends in real estate.



B. THE HOUSING DEFICIT IN EUROPE: NEW URBANISATION TRENDS?

In 2008 and 2009, the global markets saw one of the biggest economic recessions in the post-war period, the bursting of housing bubbles in the US and in several European countries undermined the health of the banking sector, resulting in the GFC¹⁴. Moreover, the Eurozone debt crisis from late 2011 had a strong impact on residential markets, followed by weak recoveries in many countries like Greece, Ireland, Portugal and Spain. Before the GFC, house prices were characterised by a long and unprecedentedly strong expansion in most EU countries, and the rise in household indebtedness in the EU have contributed to the build-up of macroeconomic imbalances. In line with the economic recovery, demand factors have picked up, and house prices have accelerated in most member states since 2016. Since the GFC the correction experienced in most of the countries has been very uneven. Some markets saw decreases of more than 50% (notably in Ireland, Romania) in the few years following the crisis. In contrast, prices have barely adjusted or have continued to grow in some other markets such as Belgium, Luxemburg and Sweden¹⁵.



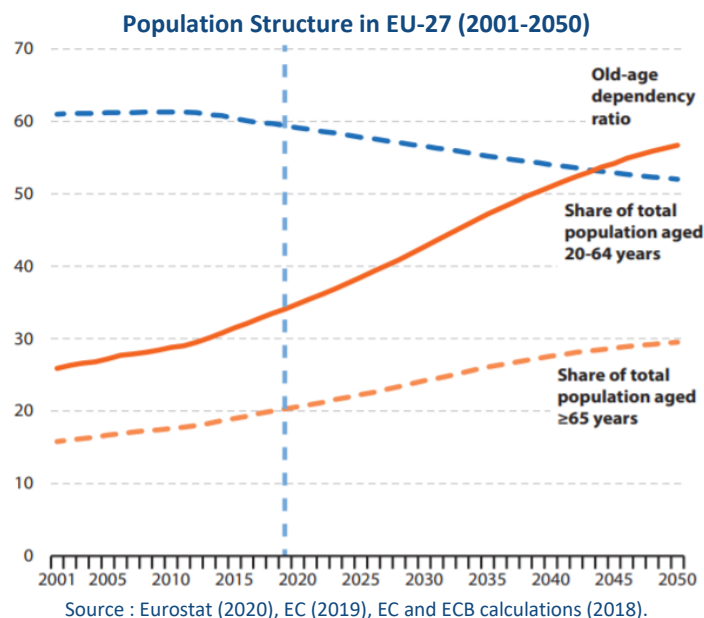
Source: Eurostat, ECB, Urban Data. *The State of Housing Market in Europe (2018)*.

¹⁴ Oxford Economics (2020). Impact of the COVID-19 crisis on European listed real estate.

¹⁵ The European Commission (2017) European Semester Thematic Factsheet : Housing Market Developments.

On the other hand, new housing supply diminished dramatically, the construction industry did not fully recover following the GFC, and many homebuilders and developers were severely affected, resulting in a housing supply crisis. The housing market remains structurally undersupplied, largely the consequence of an ongoing lack of development across much of Europe, particularly in capital cities with high employment opportunities. New housing completions in the EU have remained substantially below their average level since the start of monetary union. New housing completions have recently been close to average in Germany and France, while it was lower in Spain and Italy, and has remained subdued in the Netherlands. Building permits have increased more strongly quicker than housing completions in a number of large European countries. The existing housing stock in Europe is also ageing, the average age of European housing stock is between 30 and 100 years. Around 75% of the housing stock in the EU was built before 1979, and the share of dwellings built after 2000 stands at 13.3%, while the ones built after 2010 is only 3.7%¹⁶. Besides, growing population and urbanisation trends created not only the need to refurbish existing stock, but also to build new houses. Administrative restrictions, such as the time required to obtain a building permit or zoning constraints, also result in housing shortages in some countries. The scarcity of land, especially in central locations, coupled with increasing construction costs push developers' profitability. The marked rise in construction costs since 2014 has been increasingly fuelled by rising labour costs and has been accompanied by strong momentum in house price growth, signalling buoyant demand¹⁷.

From a long-term perspective, housing demand may have been fuelled by structural demographic changes (see graphics below). Growing population and urbanisation trends create a need for additional housing. Even in countries with shrinking population, housing demand continues to grow due to high preference of people living in large cities, which is linked to more job opportunities. According to latest data by Eurostat, there were 90.5 million senior people (aged 65 years or more) in the EU-27 at the start of 2019, this equated to approximately one fifth (20.3 %) of the total population. This number is expected to peak at 129.8 million inhabitants in 2050 and the share in the total population will also reach 29.4 % during the next three decades¹⁸.



The rising demand for housing has also been supported by increasing income levels and favourable financing conditions. As can be seen in the graph, people still intend to carry out home improvements and purchase or build a home in Europe¹⁹. Housing demand is likely to have also been supported by investment motives as residential kept its attractiveness as an asset class.

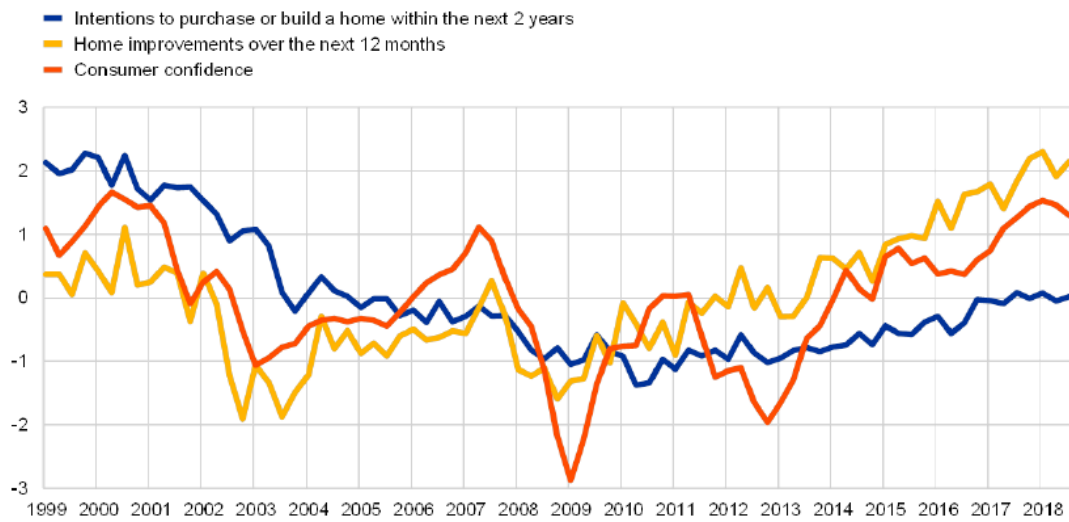
¹⁶ The European Commission (2019) Housing Affordability and Sustainability in the EU.

¹⁷ ECB Economic Bulletin (2018/7). The State of Housing Market in the Euro Area.

¹⁸ Ageing Europe: Looking at the lives of older people in the EU (2020).

¹⁹ ECB Economic Bulletin (2018/7). The State of Housing Market in the Euro Area.

Euro area survey data as housing demand indicators



As discussed in previous sections, the residential sector is growing rapidly throughout Europe, supported by a shift in demographics and lifestyles of a diverse spectrum of age groups. These diversity trends provide the sector with a depth in demand and wide buyer/tenant diversification, which spans an entire lifecycle; from their early 20s as a student, to developing their careers as young professionals, starting a family and eventually retiring. In line with diversified demands and products, new capital is increasingly allocated to not only traditional residential such as multifamily and apartments, but also alternative residential sub-sectors like student and senior housing, which have moved into the mainstream, as part of a long-term structural shifts²⁰. These structural shifts and their expected implications by sub-sectors are summarized in the below table:

Demand Drivers	Implications	Benefits for subsectors
Population growth	Rising population, therefore demand for all types of housing is expected to rise, putting increasing pressure on existing resources.	All
Ageing population	The global population is getting older and living longer across the world but particularly in developed economies like Europe. Therefore, there is a need for a very different kind of housing in the future.	Senior housing Care homes
Urbanisation	People are increasingly choosing to work, live, socialise and retire in major towns and cities. This leads to rising urban densification and places significant pressure on existing infrastructure and living space.	All
Global growth of middle class	The middle class is expanding rapidly, particularly in developing countries. This is creating a wealthier, more educated and technologically integrated global population, which frequently travels and lives abroad.	Student housing Private Rented (PRS) Co-living;
Rise of the experiential lifestyle	Rising demand for experiences over things and greater lifestyle flexibility, is now felt across all aspects of peoples' lives. This has changed occupier requirements across the built environment, especially the living sectors. Customers now increasingly expect high quality, professional services alongside their space.	All

Source : MG Real Estate (2020) European Living tapping into 21st century growth trends.

The residential market is already undersupplied, Covid-19 and its impacts are likely to widen this housing deficit. This is of extreme importance when discussing new regulation around housing affordability, real estate renovation and sustainable investments towards the adoption of the European Green Deal in 2021 and onwards. Demographic trends such as ageing population and deeper urbanisation are likely to be immune to the effects of Covid-19 in the long term and may strengthen investor appetite for this sector. Although there are some challenges ahead, we believe that residential sector will keep its attraction and long-term success in the forthcoming period.

²⁰ MG Real Estate (2020) European Living tapping into 21st century growth trends.

V. Key Takeaways

- Residential is one of the most important sectors in real estate, representing around 20% of the FEN Global Index. This relevance is even more evident in Europe, being the biggest individual sector with a weight 35% of the FEN Developed Europe Index compared to 2% in 2010.
- In 2006, the residential index represented around EUR3.5 Billion in FF market cap and was composed by 3 traditional landlords. Almost 15 years later, the index is composed by 16 companies, totalling EUR 76 Billion in FF market cap and representing a significant diversity in terms of property subsectors and activities. This growth was also supported by a strong equity performance. During the last 10 years, the residential index provided an annualised total return of 18%, outperforming the FEN Developed Europe Index by 10.2%.
- The expansion of residential property companies is supported by strong fundamentals, both economic and demographic. Countries like Germany, the UK, the Netherlands and the Nordics are beneficiaries of increasing urbanisation, migration, and the presence of financial institutions and growth of tech hubs. The post GFC recovery in countries like Belgium, France, Spain and Ireland also boosted this sector, especially after 2016.
- Europe is at the forefront of developing new alternative subsectors like student housing, care homes and social housing, receiving a lot of investment thanks to innovative solutions to some macro changes, including ageing populations and housing affordability, which has also seen as an opportunity for other types of companies. As Sep/20, 6 out of the 16 pure residential companies in the index are specialists in these sub-sectors and 19 out of the 35 diversified companies had exposure to residential properties.
- There are some other residential players, mainly homebuilders and hybrid companies, who are not currently included in the FEN Global Series but play a relevant role in the residential market. This is also a segment with significant growth in the last decade. EPRA identified almost 30 residential developers in Developed Europe representing more than EUR 25 Million in Full market cap and created a synthetic portfolio for understanding the main differences between these companies and residential landlords. Although more volatile and procyclical than landlords, homebuilders seem to show some similar risk/return characteristics to property companies and are driven by common fundamentals.
- Residential companies have a strong commitment to innovation and sustainability. Several companies have already implemented the EPRA sBPR guidelines, increasing the quality and scope of all the information reported and representing 12% of the total number of sBPR awards in 2020. In the future, we might expect to see these companies making additional improvements in terms of energy efficiency, renewable sources and GHG emissions following a clear path towards the full implementation of the European Green Deal in the coming decade.
- European residential landlords have proved to be highly resilient to the Covid-19 crisis, showing a strong operational performance and seeing small changes in occupancy rates and high rent collections. Although some corrections can be expected in those countries with high Price-to-Income and Price-to-Rent ratios, the main economic and demographic fundamentals driving this market remain positive. The residential market is already undersupplied in many cities in Europe. Demographic trends such as ageing population and deeper urbanisation are likely to be immune to impacts of the pandemic in the long term and may boost investor appetite for this sector.

List of Abbreviations

FTSE EPRA Nareit (FEN)

Global Financial Crisis (GFC)

Emerging Markets (EM)

Developed Markets (DM)

Asia Pacific (APAC)

REIT

UAE

free float market capitalization (ff market cap)

purpose-built student accommodation" (PBSA)

UNESCO

IPO

EPRA

ESG

M&A

SOCIMI

greenhouse gas emissions (GHG).

sBPR

working from home (WFH)

NAV

EU

ECB

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