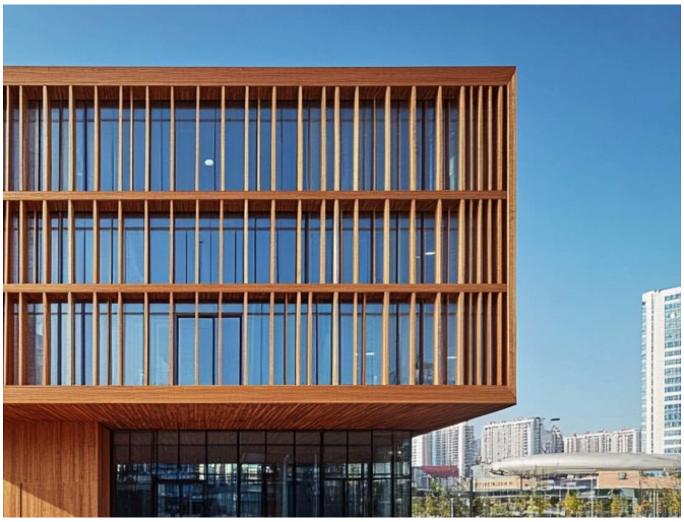
– REAL ESTATE IN THE REAL ECONOMY –

Supporting growth, jobs and sustainability

Real estate, as a general term, describes the built environment, which plays a vital role in every aspect of the European economy, society and environment. Businesses and society cannot function without the services of commercial property, including the provision of offices, shops, factories, and a wide range of housing solutions and many other forms of real estate. The European real estate investment industry delivers and manages the infrastructure needed for entrepreneurship and communities to thrive. It is therefore a fundamental source of employment and economic growth, and a major contributor in addressing two critical challenges of our time: providing liveable and functioning cities for a growing urban population and reducing the environmental footprint of the built environment.

The European Association for Investors in Non-listed Real Estate Vehicles (INREV) and the European Public Real Estate Association (EPRA) represent the full spectrum of the European property investment industry. INREV and EPRA have commissioned this research which evaluates the role and importance of the real estate investment industry to the European economy. Details of the sources and methodologies used to derive the information are presented at the end of this report.

The efficiency of the process through which the European real estate industry invests, develops, supports and maintains the built environment, and services its clients, is of crucial importance to policy makers. Although there are many factors that influence the well-being of European citizens and the European economy, a performing real estate sector provides the physical platform for all these other factors to deliver their full potential, and for the European economy to thrive and remain competitive.



1. An industry increasingly providing housing

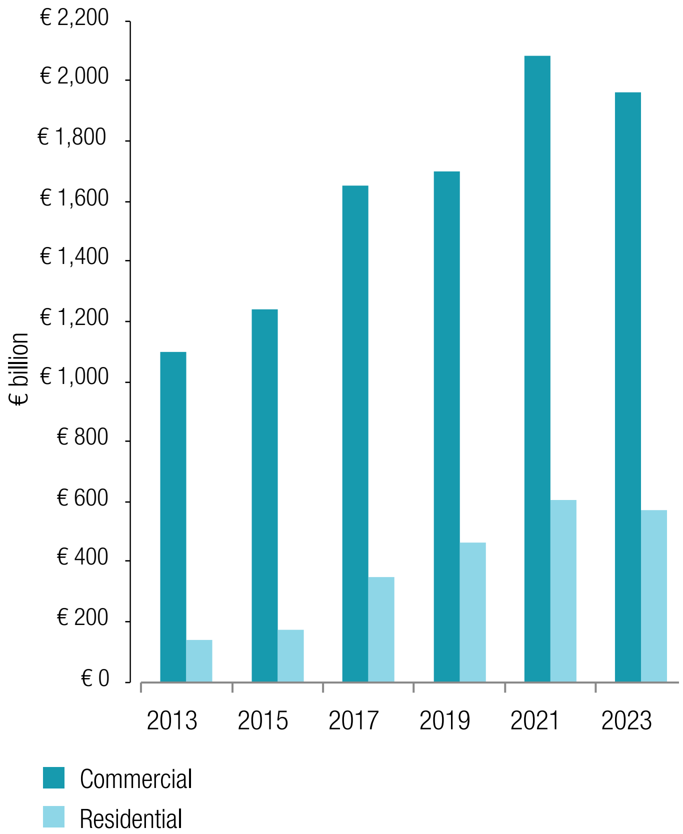
Access to decent and affordable housing is a basic human need and the foundation of our communities. The real estate investment industry is increasingly committed to meeting the growing demand for safe, affordable and sustainable housing.

Since 2013, institutional investment in the housing sector has increased almost four times to €573 billion in 2023. It has grown at a faster rate than commercial property and its share of total institutionally invested property has doubled over the same horizon to 23%. Investors have responded to the challenge of meeting the underserved demand for professionally managed homes in the private rented sector (PRS), delivering a wide spectrum of housing solutions. These include multi and single family affordable and mid-market housing, senior living and student accommodation. Institutional investors are attracted by the long-term nature and low volatility of predictable cashflows offered by a sector that is underpinned by accelerating structural trends and more dislocated from economic cycles than many other sectors. It also affords institutional investors the opportunity to invest with purpose and create a positive social impact through its activity.

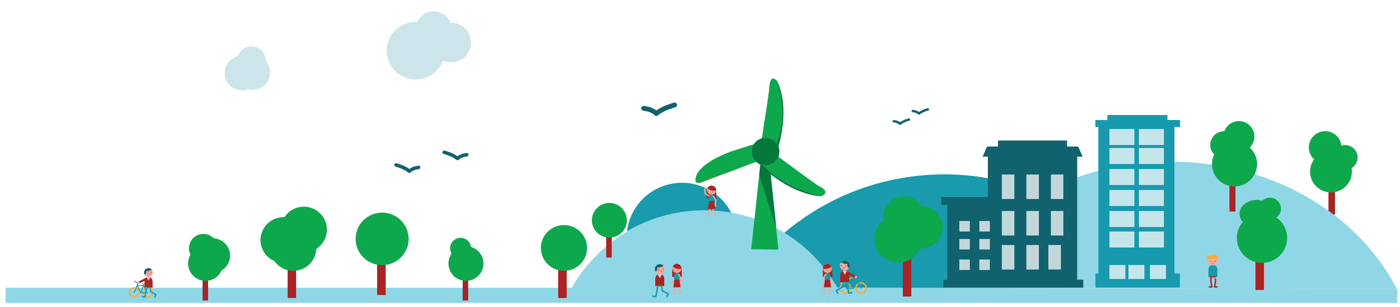
While investment in the housing sector is growing as a proportion of all property investment, at less than 2% it presents a small fraction of the €35.6 trillion estimated total value of EU housing and of the amount that is privately rented. However, the professional management expertise institutions provide and their focus on decarbonisation and generating social value through their activities make them an effective partner to public agencies seeking to deliver housing solutions at scale. Indeed, these investors recognise that the twin challenges of decarbonisation and housing are linked as improved efficiency and renewable installations reduce total housing costs, improving rental affordability.

Access to decent and affordable housing is a basic human need. Institutional activity makes a vital contribution to solving the housing challenge with EU institutional investors and managers representing €573 billion of housing assets.

Large EU & UK investors' portfolios (end 2023)



Source: RHL Strategic Solutions and PMRECON estimates using data from Eurostat, ECB, EPRA, INREV, OECD and MSCI.

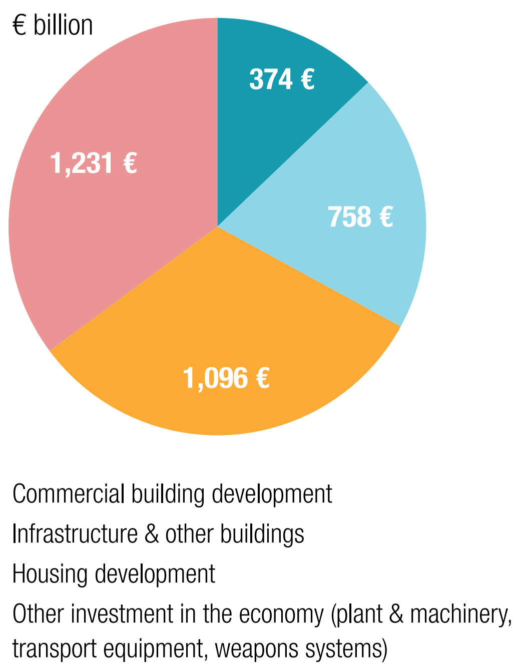


2. Investment - improving the built environment

Annual fixed investment in new commercial property buildings (excluding housing) and the refurbishment and development of existing buildings increased to €374 billion in 2023, further accelerating the uptick in investment since 2017. This increase in absolute investment in the upgrading of commercial buildings represents 11% of all fixed capital investment in the EU and UK economies. This highlights how sensitive commercial property development – and jobs in the commercial real estate industry – are to the strength of the EU and UK economies. The scale of investment in commercial buildings alone is equivalent to the GDP of Denmark and substantially higher than the GDP of Finland or Portugal.

This data does not include the annual investment in housing, which has a 32% share of all investment. Institutional activity in this sector has grown sharply since 2013. Investment in housing, infrastructure and other non-domestic buildings is also substantial, totalling €2.2 trillion. When included with commercial property, it represents almost two-thirds of fixed capital investment in the European economy.

Investment in the EU & UK economy, 2023 (€ billion gross capital formation)



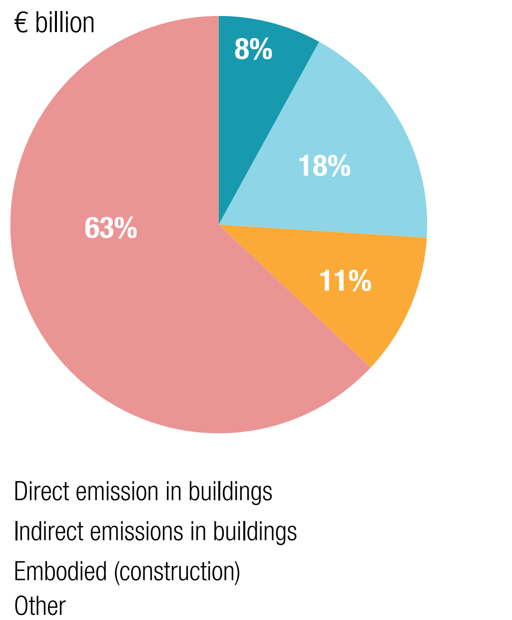
Source: RHL Strategic Solutions estimates using data from Eurostat, OECD and ONS

3. Contributing to a low carbon economy

The built environment is central to achieving a transition to a low carbon economy and society. The International Energy Agency (IEA) accounts for close to 40% of global energy related CO_2 emissions and more than 70% in Europe's cities. Buildings account for 30% of total energy consumption and 26% of end-use related CO_2 emissions from the operation of buildings including power, heating and cooling. In addition, embodied carbon emissions from materials, construction, demolition and disposal account for approximately 11% of total end user emissions in Europe. Given the very long life cycle of real estate assets and embodied carbon involved in their construction, retrofitting existing real estate stock is critical to achieving decarbonisation goals.

Institutional investors were early signatories to the UN Principles for Responsible Investment, 2004 and are committed to the UN 2030 Agenda for Sustainable Development. Environmental considerations are now firmly embedded in investment decision-making from inception to disposal, with a circular approach applied to materials and construction. Within Europe, regulations have required new buildings to be close to net zero since the end of 2020. However, new construction is a small proportion of all buildings. Existing housing, commercial and public sector buildings represent one of the most untapped potential sources of lowering emissions.

Contribution of buildings to end user energy emissions, 2023 (million)



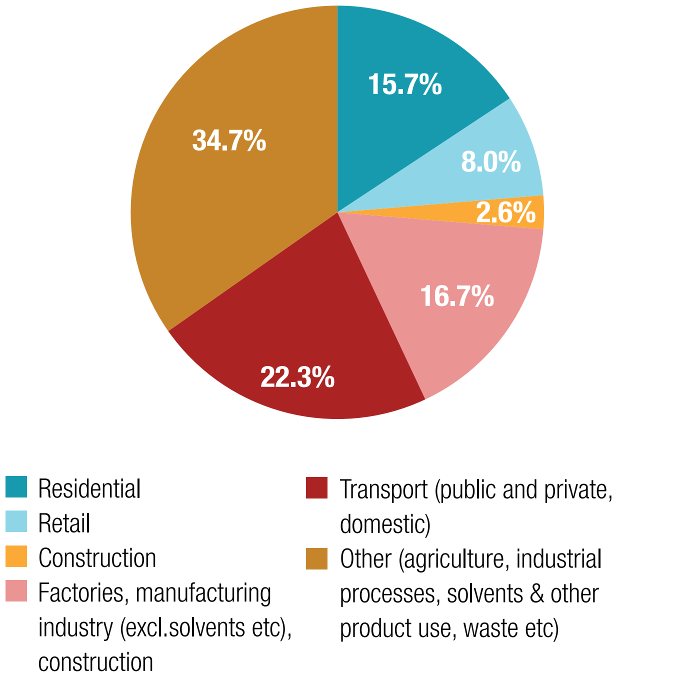
Source: IEA (2024)

Transitioning the operation of existing buildings to net zero is critical to achieving the EU's aim of improving energy efficiency by 32.5% by 2030 and achieving net zero carbon by 2050. It is also an important anchor of delivering decent and affordable housing for all, with energy efficiency and renewables being an important component of both the quality and total occupational cost of housing.

The cost of meeting these goals for housing and other buildings by 2030 has been estimated at almost €60 billion per year – a big commitment which emphasises the importance of Europe's commercial property sector in delivering these important energy efficiency improvements.

Listed property companies and non-listed funds are constantly evaluating and improving their sustainability record through their participation in the Global Real Estate Sustainability Benchmark (GRESB) annual survey. However, decarbonisation requires collaboration between owners and occupiers and the industry has established the C Change initiative to increase operational efficiency in partnership with occupiers. In addition, the industry is working to develop new techniques to enable the social impact of property investment to be measured and investors and managers to be benchmarked on their social impact performance.

Air emissions of greenhouse gases, EU 28 (Million tonnes CO_2 equivalents by sector) 2022



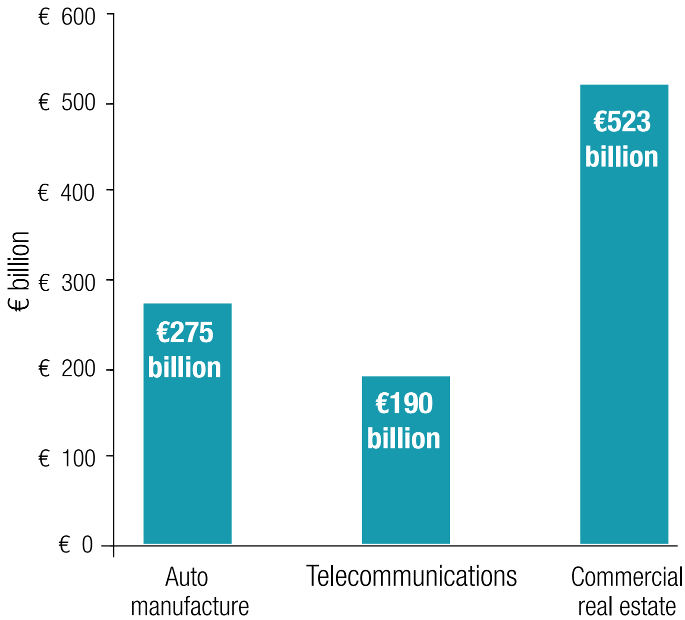
Source Eurostat, IEA (2024)

4. Contributing to the economy and supporting jobs

The commercial property industry directly contributed €522.7 billion GVA to the European economy in 2023. This represents about 2.9% of the total economy, which is comparable to the combined size of the European auto manufacturing industry and telecommunications sectors. It employs 4.4 million people, which is more than the combined employment of the auto manufacturing industry and the telecommunications sectors and equivalent to banking.

The commercial property industry's economic contribution continued to grow in 2023, absolutely and as a share of the total economy. Total employment in commercial property proved resilient to the global pandemic and subsequent interest rate movements, with employment in construction, development and the repair of buildings remaining stable after its bounce post pandemic. This activity in development, refurbishment and repair of buildings is the largest segment of the commercial property sector. The upkeep, management and care of commercial buildings is also a sizeable activity, undertaken either directly by property owners or on their behalf by a growing number of specialist contractors. All of these activities are an essential part of maintaining and improving the quality of the accommodation services provided to businesses and have an indirect impact on the environmental quality of public spaces.

EU & UK Gross Value Added, 2023

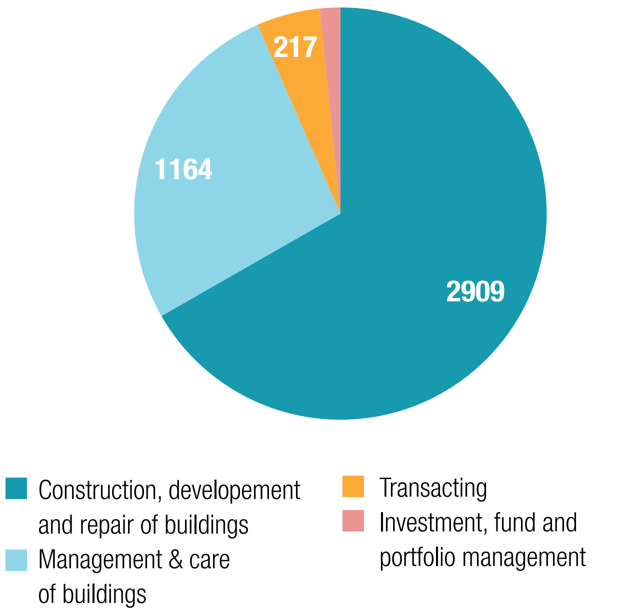


Source: RHL Strategic Solutions estimates using Eurostat and ONS data, INREV and EPRA

The acceleration in real estate investment activity in the housing sector is in addition to estimates of the commercial sectors contribution to employment and economic growth. This expanding area of investment reflects two priorities of institutional investors. First, the increasing focus of institutional investors on the provision of social and affordable housing as they respond to the severe shortfall in existing supply. Second, investment in existing buildings to improve their energy efficiency. However, inflationary costs of development and skilled labour shortages in the context of delivery of housing at affordable and sustainable rents is weighing on their capacity to increase much needed supply, reflected in total construction employment tapering down to pre-pandemic levels.

The ability to lease rather than own premises offers flexibility to businesses, including SMEs. Some of €2.9 trillion of all European commercial space is let to businesses, which frees up capital and enables them to lease new space as they grow.

Direct employment in the EU & UK commercial property sector ('000), 2023



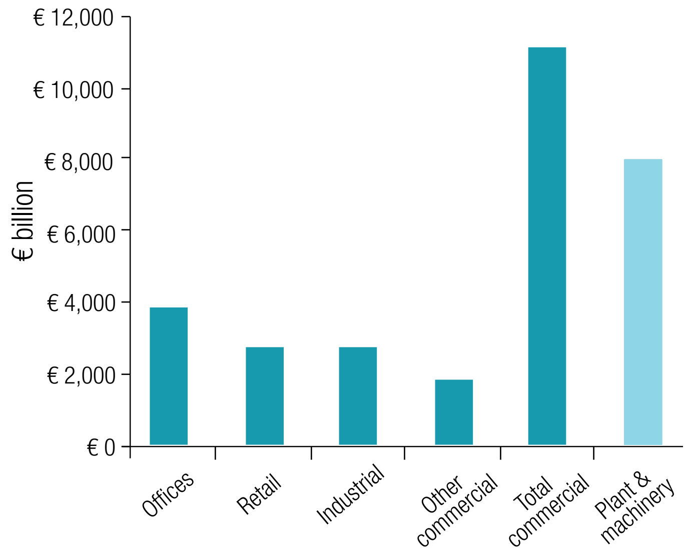
Source: RHL Strategic Solutions estimates using Eurostat, National statistical offices and industry data

5. Commercial real estate – a significant role in business, industry and social life

Commercial property, other than housing, encompasses offices, logistics and light industrial premises, high street shops, managed shopping and leisure facilities, hotels, as well as healthcare, data centres, science parks and some other non-residential buildings. New forms of commercial property are continuously emerging. It plays a vital role in enabling Europe's business, industry and society to function. Its market value in 2023 was approximately €11.1 trillion. This is greater than the value of the plant, machinery and equipment used by Europe's businesses and manufacturers. Offices are the largest property type, although retail and industrial are also substantial. The total value of housing, at €35.6 trillion, however, far exceeds other property sectors.

The stock of housing comprises owner occupied, privately rented and social housing, as well as specialist housing solutions such as student housing. The structure of housing market ownership varies across Europe. However, currently urban growth centres have an undersupply of housing units to rent due to population growth and changing household structures, with such excess demand challenging affordability.

Commercial property stock in the EU & UK, 2023



Source: RHL Strategic Solutions estimates using Eurostat, ECB, OECD and National statistical offices data

6. Investment and management of the built environment – non-listed funds and listed companies at the forefront

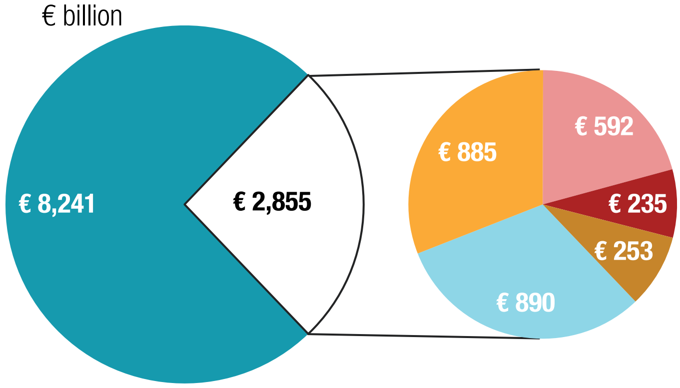
Nearly €2.9 trillion of commercial property is held as an investment.

Businesses prefer the flexibility of renting and often are unable to commit the capital and management time required of owner-occupation. The commercial property industry meets this need by investing in commercial property and providing accommodation services to these businesses.

Non-listed funds are the biggest property owners, representing almost 45% of institutionally held commercial property investment, while EU listed property companies and REITs account for 30%. In addition to their investments in the listed and non-listed sectors, institutional investors also invest directly in commercial property with EU insurance companies and pension funds holding an estimated 12%.

As with other asset classes, investment in property has become more global. The amount of EU commercial property held by non-EU institutions and sovereign wealth funds is estimated to be €253 billion. Global investment is becoming an increasingly important source of capital in the EU commercial property market. Directly held investment by non-EU insurance companies, pension funds and sovereign wealth funds accounts for 13% of invested commercial property in the EU and is considerably more when their indirect investments in EU domiciled non-listed funds, property companies and REITs are considered.

EU & UK commercial property holdings by investor type, 2023 (€ billion)



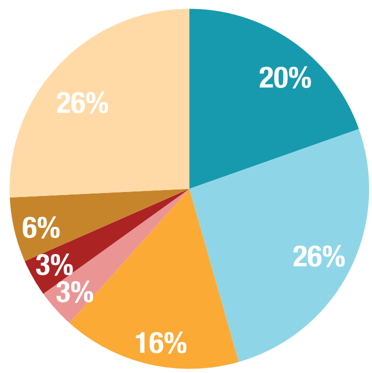
Not held as an investment
Other professional investors (HNW, AIM etc.)
Non-listed funds
EU & UK listed property companies & REITs
EU & UK insurance companies & pension funds
Institutions from outside the EU & UK

Source: RHL Strategic Solutions estimates using data from Eurostat, ECB, EPRA, INREV, OECD, ONS and MSCI.

7. Providing the capital, ownership and management behind a wide spectrum of business and social activities and housing

The traditional retail and office sectors continue to represent a significant part of investors' portfolios but their share has been declining over time in favour of housing, particularly affordable and mid-market PRS housing. In responding to social and public needs, housing represents 26% of all institutional property holdings in 2023, a sharp increase from 14% in 2015. Together with "alternative" property sectors (including hotels, healthcare, data centres, car parks, self-storage and mixed use property), sectors other than the more traditional commercial sectors, account for almost 40% of portfolios. Notably, healthcare, senior living and science park facilities are becoming more prominent in portfolios, albeit from a low base. Housing, including the private rented sector, student accommodation and senior housing, has seen the largest increase this decade.

Portfolio structures (INREV and EPRA EU & UK portfolios), 2023



Retail
Offices
Industrial
Hotel (including Leisure)
Health
Other commercial
Housing (including student accommodation)

Source: RHL Strategic Solutions estimates using EPRA and INREV data

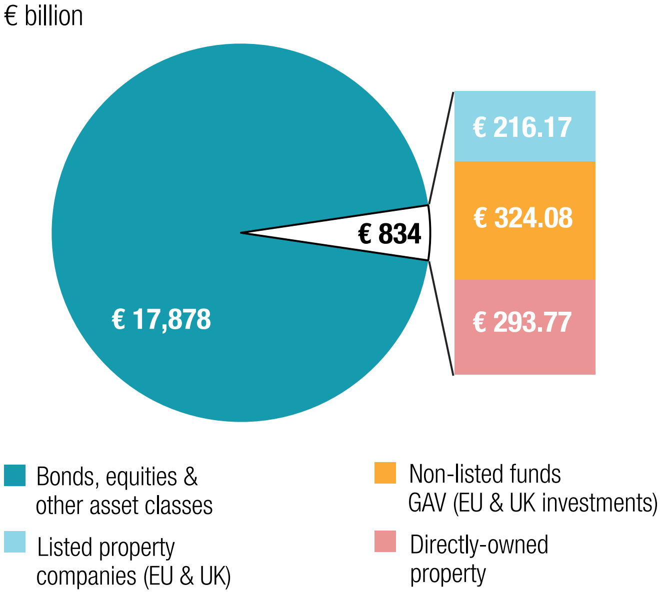
8. An important source of income for European savers and pensioners

Pension fund and insurance companies' investments in Europe include €1 trillion of property exposure, which represents an allocation of 4.5% of their total Assets Under Management. Having declined during the early 2010s, property's share has remained broadly stable in recent years, helped by investors increasing their allocations to property to access its diversification benefits and long-term, secure income. Although allocations remain buoyant relative to previous decades, allocations to real assets are adjusted by the denominator effect of swings in other asset classes. However, the low level of borrowing now employed by the sector ensures that investors' exposure to underlying property is protected from interest rate movements compared with the pre global financial crisis era. This is evident in the sectors capacity to adapt to a higher interest rate environment.

Non-listed funds represent the most used route through which institutional investors gain their exposure to property. This shift has been driven by smaller investors new to property, who often lack the scale of capital and expertise required to invest directly, and by increased cross-border allocations. Listed property companies and REITs also provide an attractive opportunity to indirectly invest in the sector, often embedded within the wider allocation to equities.

Large institutional investors, with the requisite scale and expertise also invest directly in property, while continuing to invest indirectly in both the non-listed and listed sectors. For these investors, the choice of investment mode is driven by the most appropriate mode of executing an identified investment opportunity.

Institutional allocated capital to EU & UK real estate, 2023



Source: RHL Strategic Solutions estimates using Eurostat, ECB, EPRA, INREV, ANREV, NCREIF, OECD and other data.

This report was sponsored by INREV and EPRA and prepared by Brenna O'Roarty, RHL Strategic Solutions

About INREV

INREV is the European Association for Investors in Non-Listed Real Estate Vehicles. We provide guidance, research and information related to the development and harmonisation of professional standards, reporting guidelines and corporate governance within the non-listed property funds industry across Europe. INREV currently has 516 members. Our member base includes institutional investors from around the globe including pension funds, insurance companies and sovereign wealth funds, as well as investment banks, fund managers, fund of funds managers and advisors representing all facets of investing into non-listed real estate vehicles in the UK and the rest of Europe. Our fund manager members manage more than 500 non-listed real estate investment funds, as well as joint ventures, club deals and separate accounts for institutional investors.

Find out more about our activities on www.inrev.org

About EPRA

EPRA, the European Public Real Estate Association, is the voice of the publicly traded European real estate sector. With more than 290 members, covering the whole spectrum of the listed real estate industry (companies, investors and their stakeholders), EPRA represents over €840 billion* of real estate assets and 95% of the market capitalisation of the FTSE EPRA Nareit Europe Index. EPRA's mission is to promote, develop and represent the European public real estate sector. We achieve this through the provision of better information to investors and stakeholders, active involvement in the public and political debate, promotion of best practices and the cohesion and strengthening of the industry.

Find out more about our activities on www.epra.com

*European companies only

Sources and Methodologies

All estimates relate to the 28 countries of the European Union and the UK, and are based on data available up to 30 September 2023. RHL Strategic Solutions estimates are based on methodology developed by Paul Mitchell Real Estate Consultancy (PMRECON) in pre-2016 editions of this paper.

1. An industry increasingly providing housing

As above for Investment & management of the built environment, insurance companies and pension funds are estimates from Eurostat, the ECB, ONS and OECD data (updated to 2023 where only 2021/22 data are available) of these institutions' investments in "land & buildings" or "fixed assets" (almost all of which are buildings). Non-listed funds are estimated from data provided by INREV and ANREV/ INREV/ NCREIF of the gross asset value of EU domiciled funds' monies invested in EU27 countries and the UK. EU-domiciled listed property companies & REITs are based on estimates of EPRA members' portfolio values (EU27 and the UK only and excluding development) grossed-up on the basis of EPRA's coverage of the total listed property investment companies market (i.e. excluding "Real Estate Services", Construction, and "Building Materials & Fixtures"). Non-EU/UK institutional investment is estimated using data on net investment flows gratefully provided by MSCI - Real Capital Analytics.

2. Investment - improving the built environment

Estimates derived from 2023 Eurostat and ONS data on "gross fixed capital formation" (GFCF, commonly known as investment). Housing and other investment are directly from Eurostat and national statistics offices. Commercial property is derived from Eurostat's and ONS estimates of "non-residential buildings & other structures"; additional information from other sources has been used to get an indication of how much of this GFCF is buildings and how much of these buildings are commercial; in this respect, approximately 33% of GFCF in "non-residential buildings & other structures is estimated to be in commercial buildings, the remainder in infrastructure and other non-residential buildings such as public hospitals, universities, museums, and manufacturing, etc. The total GFCF ("Investment in the economy") figure excludes "Cultivated biological resources" and "Intellectual property products".

3. Contributing toward a low carbon economy

Energy consumption from Eurostat and International Energy Authority (IEA), with the published sectors re-categorised and re-aggregated. Direct and indirect emissions derived from IEA data and Eurostat. Housing and commercial exposures are estimated separately.

4. Contributing to the economy and supporting jobs

Approach is to take Eurostat and ONS, UK estimates of Gross Value Added (GVA) and employment for the Construction, Real Estate Activities (excluding imputed income from owner-occupiers) and other sectors from its National Accounts and Structural Business Statistics series and apportion shares to commercial property based on various criteria (for example, commercial real estate's share of construction output, of the total amount of rented property, and its share of total property transactions etc); value added and employment in "investment, fund & portfolio management" is calculated directly (following principles consistent with national accounts methodology) using information from a sample of fund managers and listed property companies, grossed-up on the basis of gross asset value. Overall, commercial property is estimated to account for 18% of total EU Construction (NACE F) GVA and 29% of Real Estate Activities' (NACE L less NACE L68A) GVA.

5. Commercial real estate - a significant role in business, industry and social life

The calculations use Eurostat, ECB, OECD and national statistical office national accounts balance sheet data relating to the value of the stock of "fixed assets" and "Land and Buildings". For residential in non-Eurozone countries, the official data on dwellings is updated to 2023 where required using house price inflation and an estimate of stock growth. For commercial, the official data on "non-residential buildings" includes all non-commercial buildings and is apportioned to commercial property; it is estimated that approximately 65% of the value of

these "non-residential buildings" are commercial. For non-Eurozone countries, values are updated to 2023 where required using INREV Asset level index capital growth and an estimate of floorspace stock growth.
The comparative Plant and Machinery estimate is derived on a similar basis from Eurostat, ECB, OECD and national statistical office national balance sheet data.

6. Investment & management of the built environment - non-listed funds & listed companies at the forefront

Insurance companies and pension funds are estimates from Eurostat, the ECB, ONS and OECD data (updated to 2023 where only 2021/22 data are available) of these institutions' investments in "land & buildings" or "fixed assets" (almost all of which are buildings).

7. Providing the capital, ownership & management behind a wide spectrum of business & social activities and housing

Derived from the gross asset values in the INREV vehicle database and from EPRA estimates of the listed sector's property portfolio values (EU/UK standing investments only).

8. An important source of income for EU savers & pensioners

Insurance company and pension fund investments in directly-owned property are from section 3 and for "equities, bonds & other asset classes" and total investments from the institutional balance sheets data of Eurostat, the ECB and OECD and national statistics offices, updated to 2023 where appropriate.
Listed property company exposures are estimated based on the product of (a) institutions' allocations to equities (including those held indirectly in mutual funds etc.) and (b) of listed property's share of equity portfolios (in aggregate, estimated respectively to be 29.7% and 3.6%). The exposure to non-listed real estate is a net asset value (NAV) estimate using information from INREV Universe studies, investment consultants & other information.