# UK commercial real estate impact report

RESEARCH

# UK commercial real estate impact report

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# Foreword

The next ten years will be unprecedented for the built environment. The drivers of change are bigger and more fundamental than many of us have witnessed in our lifetimes, and are also imposing themselves faster than the commercial property trends of recent history. All those involved with the built environment will need to work together to adapt to these changes for the benefit of our ultimate customers: people and society as a whole.

The adaptation to climate change alone will involve increasing regulation, requiring all those involved to work together to deliver a sustainable built environment. Added to that, there is a need to enable a transition from the heavily retail-led built environment that emerged in the 1950s to one that is now increasingly dominated by the delivery of goods to our homes. That transition risks leaving commercial real estate assets that are no longer in demand. History shows that run-down assets lead to far-reaching consequences in terms of crime and social disorder, which prove much more costly to fix than to prevent.

The COVID-19 pandemic has enabled a re-evaluation of where we work that looks likely to emerge with a hybrid model of demand – some days working at home, others in the office. Does that mean less office space is required overall? If so, that could exacerbate the risk of built assets becoming stranded through lack of demand.

On top of that, the economic imperative of the UK that overarches these trends is to level up the UK economy. This cannot happen without a commercial real estate sector that meets the requirements of what our customers require from the built environment in the future. Our customers are not just those that occupy the built environment. We need to look through the lens of society to recognise how the commercial real estate sector impacts everyone, both directly (for example, how we use places of employment, trade or leisure) and indirectly through the impact of its emissions on our climate.

Finally, any adaptation of the built environment to meet the challenges of the future will require investment. UK pension funds are transitioning from defined benefit types that are reducing their risk, meaning property investments are less attractive in their portfolios, to defined contribution pensions that are relatively small at present and are deterred by the illiquidity of property. This transition needs to be considered in how the commercial sector adapts to be fit for purpose in the future.

The starting point of that discussion is to have a clear picture of today's commercial real estate environment. That is the purpose of this first piece of research undertaken, which draws on the expertise of the chartered surveying profession to emphasise the importance of the commercial property sector to the economy and for delivering critical public policy aims. With that foundation, we can help bring together the leadership and activities required to adapt to the changes ahead for the sector – and at speed in the case of climate change.

Following this report, which provides insight on the current status and value of the UK commercial real estate sector, I look forward to future reports in the series that will explore how we can best adapt to the changes faced by all those affected by the built environment.

**Phil Clark MRICS, Chair of the RICS Commercial Property Forum**

# Introduction

This report provides an overview of the UK commercial real estate sector at the start of 2022 in terms of its value, impact and challenges. It is the first in a series of RICS thought leadership outputs that explore the sector in detail and offer solutions for its business, social and environmental issues. The report is structured in three parts:

- **Section 1** presents a range of evidence to demonstrate the value of the UK commercial real estate sector and its positive contribution to our economy and society.
- **Section 2** outlines the main challenges faced by the sector across three areas: business, society and the environment.
- **Section 3** recommends a set of solutions to these challenges, in terms of policy measures as well as actions to be taken by the sector itself.

For the purpose of this report, the commercial real estate sector is defined as firms and professionals who are engaged in investment, construction, renovation, management, operation, and sale and leasing of non-residential buildings. This includes office, retail, industrial, logistic, entertainment and hospitality, but excludes institutional and cultural buildings such as museums and libraries. Build-to-rent assets are considered part of the sector.

The information included in this report is based on publicly-available data, academic research, an economic impact assessment from Oxford Economics commissioned by RICS, and the outcomes of roundtables with RICS members and sector leaders held between November 2021 and February 2022.

## Executive summary

### Value and impact

The commercial real estate sector creates socioeconomic value across the UK through the creation of wealth and the provision of employment opportunities. Economic activity associated with commercial real estate (construction, investment, and asset and facility management) directly generates around 1.7% of the total gross value added (GVA) of the UK and 1.1% of the total tax revenue, and employs about 1.8% of the total UK workforce. If the wider impact of supply chains and salaries is also accounted for, GVA and taxes generated by the sector correspond to about 3.3% and 2.5% of the UK totals respectively in 2019, and the associated employment is about 3.3% of the UK total.

Beside its value in terms of GVA, taxes and employment generation, the commercial real estate sector can positively contribute to the UK government's levelling up agenda, the environmental, social and governance (ESG) performance of businesses, and the creation of sustainable places and communities. Well-designed and well-managed commercial assets provide spaces for businesses to flourish and form the context in which social interactions take place. High-quality workspaces create the right conditions for employment satisfaction and well-being, help retain talent and increase the productivity of the workforce.

The sector also provides significant opportunities for investment. The capital value of the UK commercial real estate stock has nearly doubled since 2000, peaking in 2018 at just over £1tn. In 2020, the retail, office and industrial segments accounted for between £260bn and £280bn each, with other

asset types at around £100bn in total. After reaching a low point in the wake of the financial crisis of 2007–2008, investment volumes peaked in 2015 with over £70bn. Since then, volumes declined to less than £50bn in 2020, but picked up again in 2021. Retail and offices used to be the preferred classes for investment, but recent years have seen an increase of flows towards other asset types, and especially industrial buildings. The share of foreign investment increased in the last decade, and in recent years domestic and overseas investors have been roughly equal in volume. Generally, domestic investors favour retail and office assets in Southeast England, London and the major cities, while overseas investors prefer office buildings located in and around the capital.

## Challenges

The UK sector is facing several challenges that risk accelerating the obsolescence of the commercial property stock, impacting its economic viability and diminishing its positive contribution to society. Over the last decade, the retail segment had already been suffering due to the rise of online shopping, but the COVID-19 pandemic aggravated this situation further and increased uncertainty for other segments of the sector, with the exception of industrial and logistic assets. While smaller urban centres have suffered comparatively less than the major centres during the pandemic, regional differences across the UK in terms of economic development and business opportunities are still very stark. Economic uncertainty, inflation, rising energy prices and the aftermath of Brexit add to this by increasing operational costs and potentially discouraging further investment.

The sector is also pressured by the increasing attention paid to the importance of delivering social value through urban regeneration, and the rising demand for buildings that can enhance occupants' well-being and adapt to new and flexible ways of working. These requirements create a need to change the way commercial assets are assessed, designed and operated, which must be balanced against the necessity to remain competitive and economically viable.

Finally, the urgent need to mitigate and adapt to the consequences of climate change puts additional pressure on a sector that is rightly called to assume responsibility for its impact on the environment. The actions needed to decarbonise the UK commercial property stock in line with climate targets are complex and costly, but inaction carries the significant risk of leaving large parts of the stock stranded and losing the opportunity to access sustainable finance streams.

## Solutions

The key task for the government is to establish long-term policies that support the sector and do not require a trade-off between objectives, such as between decarbonisation and economic recovery. Specifically, this report recommends that the government should:

- position and strengthen the UK's global inward investment strategy to ensure UK regions and nations are supported to deliver relevant place-based outcomes
- reform business rates to introduce proportionality/connection to ESG performance
- embed the economic contribution and social value of commercial real estate into the government's levelling up agenda by:
  - providing financial support for the renovation of commercial assets that risk becoming stranded and cannot afford upfront costs, and
  - upskilling the construction workforce to ensure large-scale renovation programmes can be rolled out and long-term job opportunities are created.

- take a whole-life approach to carbon assessment and management in the built environment:
  - mandate rigorous embodied carbon assessment in all projects to a consistent standard
  - progressively introduce a limit on embodied carbon in all new developments and major renovations
  - review Energy Performance Certificate (EPC) methodology for commercial buildings to improve transparency, accuracy and comparability across buildings
  - ensure energy efficiency targets are aligned with decarbonisation targets and
  - regulate and incentivise the reduction of operational emissions on the basis of measured performance.

In combination with these policy recommendations, this report sets out a series of actions that the sector itself can take to address its challenges:

- recognise the full value of commercial property, as well as its positive and negative impacts
- understand and meet changes in customer demand
- coordinate with other industry sectors that stand to benefit from regional economic development
- take a proactive attitude to ESG measurement and reporting
- embed carbon assessment and management in business practices
- commit to reducing operational emissions from building operations through efficient energy management, and
- invest in digital technology to improve business services as well as asset performance and flexibility.

# 1 Value and impact

This section presents information to describe:

- the composition of the UK commercial building stock
- its socioeconomic value and
- the wider contribution that the sector brings to society and the economy.

A vibrant commercial real estate sector generates economic wealth and social value that is shared across our society in the form of GVA, tax revenue and employment generation. Besides representing a great opportunity for investment, commercial property is also an essential part of the urban landscape and provides the workspace for a thriving UK economy.

## 1.1 Composition of commercial building stock

The UK commercial stock is composed of three main classes – retail, office and industrial buildings – plus a range of other types of buildings used for non-residential purposes. The composition of the stock can be measured in economic terms by looking at capital value and construction outputs, as well as in physical terms by looking at the number and size of buildings.

Chart 1 presents the capital value of all types of commercial assets in the UK from 2000 to 2020. Total value nearly doubled in two decades, mostly thanks to the growth of office, industrial and other assets. For reference, the capital value of UK residential assets has grown from £2tn in 2000 to £7.2tn in 2020.[1] The curve of Chart 1 clearly shows the impact of the 2007–2008 financial crisis and the contraction in 2020 linked to the COVID-19 pandemic. Retail assets were particularly badly hit in 2008 and only reached pre-crisis levels in 2015, while industrial and office asset values grew more rapidly during the recovery and in recent years reached volumes comparable with retail. Since 2018 the value of retail assets has begun to decline again, while the other sectors have remained fairly stable. Retail, which amounted to over 40% of the total value between 2000 and 2013, by 2020 represented less than 30%.

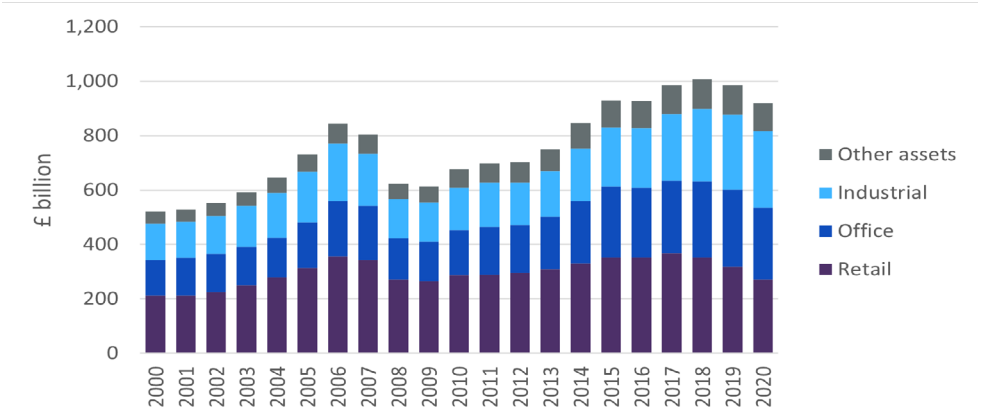


Chart 1: Capital value of commercial real estate assets, breakdown by sector, 2000–2020 (source: IPF, 2022)

1 IPF 2022. The Size and Structure of the UK Property Market: End-2020. Available at: https://www.ipf.org.uk/resourceLibrary/the-size---structure-of-the-uk-property-market-year-end-2020--january-2022--report.html

Chart 2 presents the construction output of commercial buildings in the UK from 2017 to 2020. Overall, construction activity in recent years has focused on office and other assets. The year 2020 clearly shows a fall in the output of construction in all types, largely as a consequence of works halted by COVID-19 lockdowns.

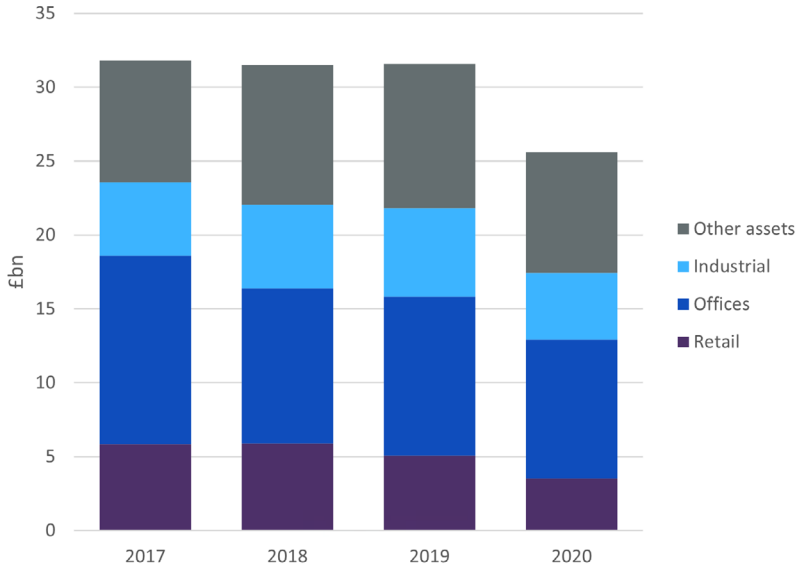


Chart 2: Construction output of commercial buildings in the UK, 2017–2020 (source: IPF, 2022)

The top row in Chart 3 shows the composition of the commercial stock of England and Wales in physical terms, for a total of 1,656,000 buildings as of March 2020. Shops and offices represent the largest number of buildings, followed by factories, warehouses and hospitality facilities. These proportions are unlikely to be substantially different for the stocks of Scotland and Northern Ireland. The bottom row provides the same breakdown but in terms of floorspace (although it excludes 288,000 buildings for which there is no floor area information). As can be expected, warehouses and factories have larger total floorspace than shops and offices, despite being fewer in terms of number of units.

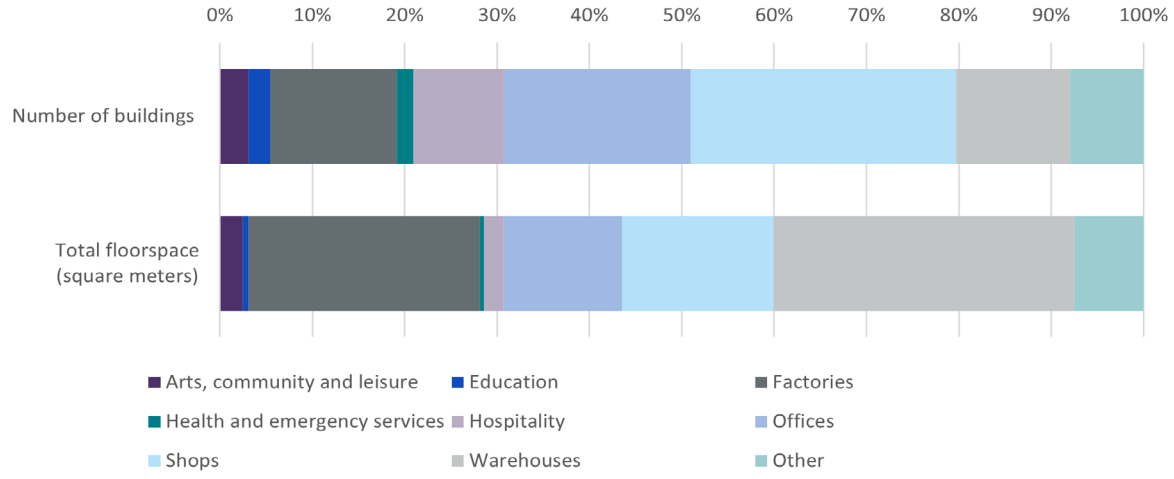


Chart 3: Breakdown of non-domestic buildings in England and Wales by building use as of March 2020 (source: BEIS, 2021)[2]

2 BEIS 2021. Non-domestic National Energy Efficiency Data-Framework (ND-NEED). Available at: https://www.gov.uk/government/collections/non-domestic-national-energy-efficiency-data-framework-nd-need

Chart 4 shows the typical distribution of commercial buildings in UK city centres and suburbs by floorspace. Office and retail clearly dominate centres with over 75% of commercial area, while this is less than 30% in suburbs, where industrial assets make up over 50% of the commercial area.

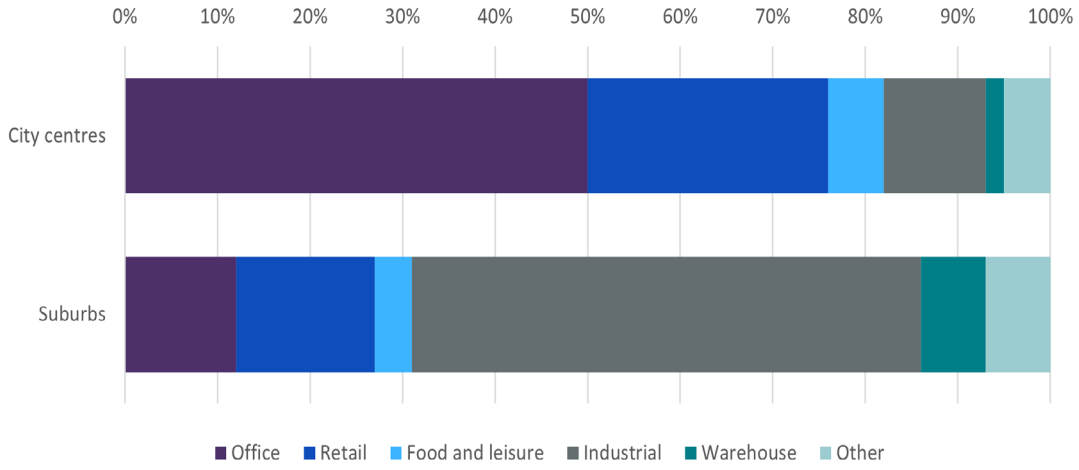


Chart 4: Typical distribution of commercial floor area in UK city centres and suburbs (source: Centre for Cities, 2018)[3]

## 1.2 Socioeconomic value

This section presents an assessment of the annual socioeconomic value generated by the commercial real estate sector across three metrics: GVA, tax contribution and employment. The sector is broken down into its main economic activities:

a construction

b investment, advisory and management (which includes sales and leasing), and

c facility management.

The residential and infrastructure segments are excluded, so the socioeconomic value presented here is only a part of the total value generated by the entire construction and real estate sector of the UK. Each metric is composed of three parts: direct, indirect and induced generation. Taking GVA and construction as an example, direct GVA is the value generated by construction activity itself, while indirect GVA is generated by the purchases that construction makes from other economic sectors through its supply chains and induced GVA is generated by the expenditure made by employees of construction firms and firms in their supply chains. The sum of direct, indirect and induced GVA represents the entire value generated across the UK economy due to construction activities. Figures are also provided for the multiplier effects of GVA and employment. These quantify the GVA and employment generated across the economy as a consequence of one unit of output from the commercial real estate sector. Type I multiplier effects take into account direct and indirect generation, while type II multiplier effects also include induced generation.

The information presented here was produced by Oxford Economics through an input-output model of the UK economy based on the UK's official input-output tables and other macroeconomic, employment and tax data published by the Office for National Statistics and HMRC. The analysis was

3 Centre for Cities 2018. Building Blocks: The role of commercial space in Local Industrial Strategies. Available at: https://www.centreforcities.org/publication/building-blocks/

conducted on 2019 data, as it is taken to better represent socioeconomic value generation across the UK economy under typical conditions, excluding the disruptions caused by the COVID-19 pandemic. Tables 1 and 2 show the full results of the economic impact assessment, which are visualised and commented on further in the following subsections.

| Whole commercial real estate sector, 2019 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Generation | | | | Units | Multiplier effects | | Units |
| | Direct | Indirect | Induced | Total | | Type I | Type II | |
| GVA | 34,162 | 13,377 | 18,739 | **66,279** | £m | 0.65 | 0.91 | £/£ |
| Tax | 7,177 | 3,203 | 5,362 | **15,742** | £m | | | |
| Employment | 597,100 | 220,900 | 270,400 | **1,088,400** | people | 11.24 | 14.96 | people/£m |

Table 1: Results of the economic impact assessment of the UK commercial real estate sector (source: Oxford Economics analysis)

| CRE construction | | | | | |
|---|---|---|---|---|---|
| | Direct | Indirect | Induced | Total | Units |
| GVA | 17,343 | 9,472 | 10,916 | 37,731 | £m |
| Tax | 5,208 | 2,231 | 3,123 | 10,562 | £m |
| Employment | 303,700 | 160,100 | 157w,500 | 621,300 | people |
| **CRE investors, advisory and management** | | | | | |
| | Direct | Indirect | Induced | Total | Units |
| GVA | 8,527 | 2,120 | 2,805 | 13,453 | £m |
| Tax | 964 | 558 | 802 | 2,324 | £m |
| Employment | 107,400 | 32,300 | 40,500 | 180,200 | people |
| **CRE facilities management** | | | | | |
| | Direct | Indirect | Induced | Total | Units |
| GVA | 8,292 | 1,786 | 5,018 | 15,096 | £m |
| Tax | 1,004 | 415 | 1,437 | 2,856 | £m |
| Employment | 186,000 | 28,600 | 72,400 | 287,000 | people |

Table 2: Results of the economic impact assessment broken down by the main economic activities of the sector (source: Oxford Economics analysis)

### 1.2.1 Gross value added (GVA)

Chart 5 shows direct, indirect and induced GVA generation. Construction of commercial assets is by far the largest contributor. This is to be expected, as construction activity produces significant volumes of economic output (direct GVA), purchases goods and services from a wide network of supply chains (indirect GVA), and both construction and its supply chains are labour-intensive activities, providing jobs to a large base of employees who in turn spend their wages in the wider economy (induced GVA). Considering all three economic activities, the sum of the direct GVA (£34.2bn) amounted to around 1.7% of the total GVA of the UK economy in 2019. For comparison, this is roughly equivalent to a third of the GVA generated by retail trade (except motor vehicles and motorcycles) in 2019, and larger than the individual GVA of sectors such as the manufacture of clothes, petroleum products, and computers and electronics. The sum of direct, indirect and induced GVA (£66.3bn) generated by commercial real estate corresponds to 3.3% of the UK total.

For every £1 spent on the sector, £0.65 of GVA are generated directly and indirectly though supply chains (type I multiplier effect). This is higher than the multiplier effect of the coke and refined petroleum sector, and comparable (on a pound-for-pound basis) to the GVA generated directly and indirectly by sectors such as the manufacturing of motor vehicles, plastic and chemical products, iron and steel, and timber products. If the impact of induced generation is considered, the GVA multiplier effect (type II) of commercial real estate rises to £0.9.

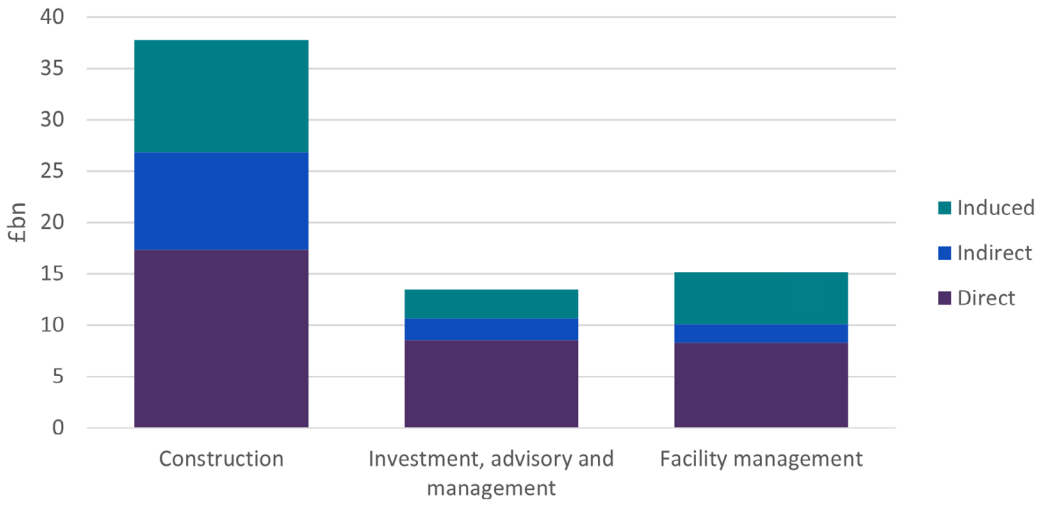


Chart 5: Direct, indirect and induced GVA generated by the main economic activities in the commercial real estate sector (source: Oxford Economics analysis)

### 1.2.2 Tax contribution

Chart 6 shows direct, indirect and induced tax contributions. Since taxes are correlated with GVA, their volumes follow similar proportions to Chart 5, with construction being the largest contributor. The sum of the tax revenue generated directly by the three economic activities (£7.2bn) was around 1.1% of the total tax revenue in the UK in 2018–2019. For reference, this is larger than all corporate taxes paid by the manufacturing (£4.7bn) and distribution (£5.7bn) sectors in 2018–2019.[4] The sum of direct, indirect and induced taxes (£15.7bn) generated by the commercial real estate sector amounts to about 2.5% of the UK total.

4 HMRC 2019. Corporation Tax Statistics 2019. Available at: https://www.gov.uk/government/statistics/corporation-tax-statistics-2019

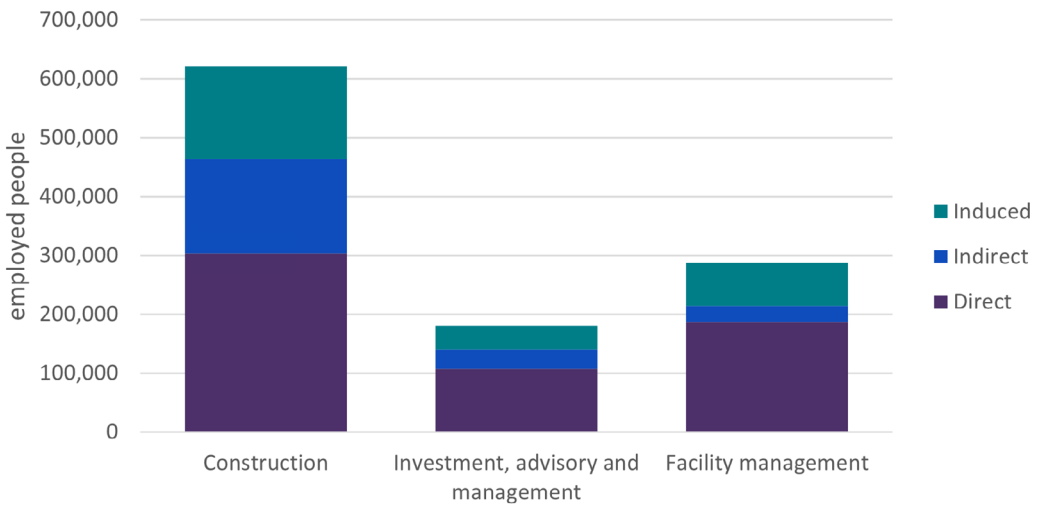


Chart 6: Direct, indirect and induced tax contribution of the main groups of economic activities in the commercial real estate sector (source: Oxford Economics analysis)

### 1.2.3 Employment

Chart 7 shows direct, indirect and induced employment generation. These volumes also follow similar proportions as in the previous two charts, although facility management shows a larger contribution than investment, advisory and management, which reflects the relative labour-intensiveness of each economic activity. The total direct employment generated by the three activities (597,100 people) was about 1.8% of the UK employed population, and bigger than the employment generated by mining, quarrying and utilities firms (388,00 people), and by the agriculture, forestry and fishing sector (486,000 people)[5] in 2019. The sum of direct, indirect and induced employment (1,088,500 people) generated by commercial real estate corresponds to about 3.5% of the UK total.

Every £1m spent on CRE generates employment for 11.2 people directly and indirectly (type I multiplier effect). On a pound-by-pound basis, this is larger than the employment directly and indirectly generated individually by the manufacturing of petroleum, chemical and pharmaceutical products, and by the production of motion pictures, TV and music. It is comparable to the utilities sector, as well as to a range of manufacturing sectors such as plastic products, electronics and computers, cement, iron, steel and clothing. When also considering induced generation, the employment multiplier effect (type II) rises to nearly 15 people for every £1m of commercial real estate output.

5 ONS 2021. Broad Industry Group (SIC) - Business Register and Employment Survey (BRES): Table 1. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/broadindustrygroupsicbusinessregisterandemploymentsurveybrestable1

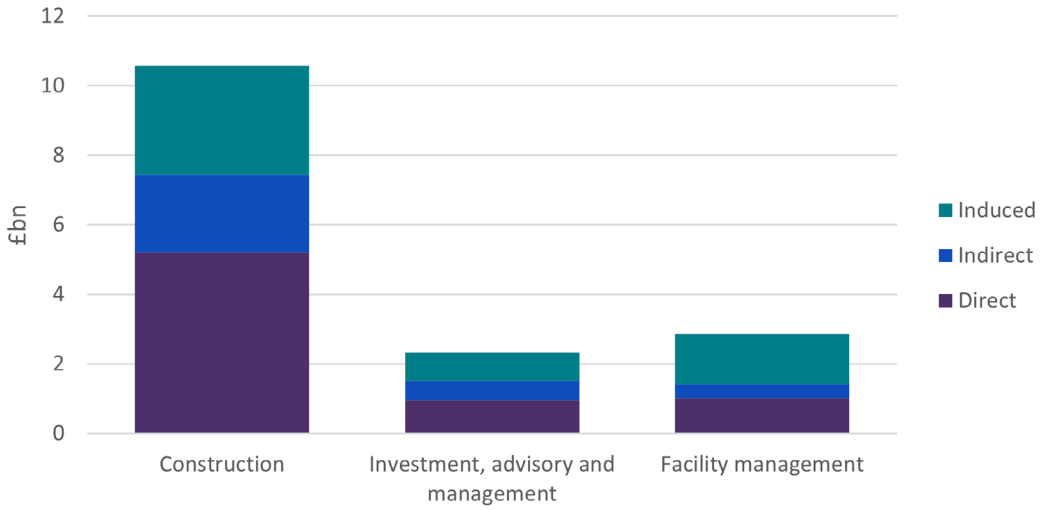


Chart 7: Direct, indirect and induced employment generated by the main groups of economic activities in the commercial real estate sector (source: Oxford Economics analysis)

## 1.3 Wider impact

Besides the generation of socioeconomic value, a thriving commercial real estate sector creates positive impacts by raising the ESG performance of businesses, playing an essential part in placemaking and contributing to the objectives of the levelling up agenda.

### 1.3.1 Driving ESG performance

Good practices of building performance management raise the ESG performance of assets (and of the businesses who own and rent them) by improving environmental and social impacts:

- Efficient monitoring and management of building operations reduce the energy consumed by building services, thereby lowering associated carbon emissions. Research shows that energy use can be reduced by up to 30%, while poor practices can increase energy use by up to 80%.[6]
- Building operations management is also essential to ensure good indoor conditions, which lead to improved occupant satisfaction and well-being, and lower health risks. Besides increasing productivity, this also leads to reduced welfare spending in the long term.[7]

### 1.3.2 Essential part of placemaking

As integral parts of the urban fabric that contributes to our sense of place, commercial assets are essential to deliver the types of mixed-use developments that are associated with high social value and low environmental impact. For example, the presence of different asset types in a development can lead to better conditions for renewable energy generation onsite, as research suggests an optimal ratio of 0.25 between commercial and residential spaces.[8] Moreover, mixed development in urban

6 Wang, L., Mathew, P., Pang, X., 2012. Uncertainties in energy consumption introduced by building operations and weather for a medium-size office building. Energy and Buildings, Volume 53, 2012, pages 152-158, https://doi.org/10.1016/j.enbuild.2012.06.017

7 IEA 2019. Multiple Benefits of Energy Efficiency, IEA, Paris. Available at: https://www.iea.org/reports/multiple-benefits-of-energy-efficiency

8 Hachem-Vermette, C., Singh Grewal, K., 2019. Investigation of the impact of residential mixture on energy and environmental performance of mixed use neighborhoods. Applied Energy, Volume 241, 2019, pages 362-379, https://doi.

infills and brownfields regenerate the local area and generate lower demand for transport[9,10] by bringing services and workplaces within walking distance. Provided with pleasant meeting spaces and a range of services, people are more likely to walk, spend time outdoors and build closer relationships with neighbours, which also leads to safer environments.[11,12]

Research shows that urban areas with a diverse mix of uses have higher social capital.[13] The Edward Street Quarter in Brighton is a good example of mixed development delivering a range of social benefits, for a total social value of £400m over 20 years against a cost of £120m.[14] Kidbrooke Village is also a successful example of mixed-use regeneration development delivering significant social value in terms of resident satisfaction and community strength, thanks also to the presence of local shops and services.[15]

### 1.3.3 Contribution to levelling up objectives

A well-managed commercial real estate stock contributes to levelling up objectives by raising the profile and attractiveness of less developed areas, providing business opportunities, and contributing to economic growth and social value. In particular:

- It creates the basis for good tenant and landlord relationships. By offering high-quality spaces and services, it creates the right conditions for tenants' businesses to flourish, which in turn provides stable returns on landlords' investments.
- It increases productivity. Good indoor conditions (heat, light, noise, air) improve occupant satisfaction and well-being, which increase staff productivity[16,17,18] and incentivise tenants to renovate the lease. Buildings that provide high levels of thermal comfort and ventilation, and low

org/10.1016/j.apenergy.2019.03.030

9 DeLisle, J., and Grissom, T. 2013. An Empirical Study of the Efficacy of Mixed-Use Development: The Seattle Experience. Journal of Real Estate Literature, 21:1, 25-57, DOI: 10.1080/10835547.2013.12090352

10 Saville-Smith, K. 2010. Neighbourhoods and Intensification: Measuring Sustainability Impacts of Higher Density and Mixed Use. Proceedings of the New Zealand Sustainable Building Conference, 26th – 28th May 2010. Available at: https://cresa.co.nz/wp-content/uploads/2017/07/paper.pdf

11 Evans, G. 2014. Living in the City: Mixed Use and Quality of Life. In: Wellbeing and the Environment: Wellbeing: A Complete Reference Guide. John Wiley & Sons, Oxford, pp. 119-146. Available at: https://ualresearchonline.arts.ac.uk/id/eprint/12689/1/Evans%2C%20Living%20in%20the%20City%20Mixed%20Use%20%26%20QoL.pdf

12 Saville-Smith, K. 2010. Neighbourhoods and Intensification: Measuring Sustainability Impacts of Higher Density and Mixed Use. Proceedings of the New Zealand Sustainable Building Conference, 26th–28th May 2010. Available at: https://cresa.co.nz/wp-content/uploads/2017/07/paper.pdf

13 Nabil, N.A. and Eldayem, G.E.A. 2015. Influence of mixed land-use on realizing the social capital. HBRC Journal, Volume 11, Issue 2, 2015, pages 285-298, https://doi.org/10.1016/j.hbrcj.2014.03.009

14 Thomas, D. 2021. Delivering Social Value – First Base. [online] Available at: https://socialvalueuk.org/delivering-social-value-first-base/

15 Berkeley and Social Life 2013. Living at Kidbrooke Village. Available at: http://www.social-life.co/media/files/Living_at_Kidbrooke_Village.pdf

16 Mulville, M., Callaghan, N. and Isaac, D. 2016. The impact of the ambient environment and building configuration on occupant productivity in open-plan commercial offices. Journal of Corporate Real Estate, Vol. 18 No. 3, pages 180-193. https://doi.org/10.1108/JCRE-11-2015-0038

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18 Clements-Croome, D. J. 2008. Work performance, productivity and indoor air. Scandinavian Journal of Work Environment & Health (Supplement). pp. 69-78. Available at: https://centaur.reading.ac.uk/11887/1/11887%20Centaur-Work%20performance%2C%20productivity%20and%20indoor%20air.pdf

levels of volatile organic compounds, bring benefits by increasing cognitive capacity and sleep quality, and by lowering symptoms due to respiratory illness and sick building syndrome.[19]

- In turn, high levels of occupant productivity and landlord satisfaction attract further investment into a profitable market.

## 1.4 Investment

Commercial property is an important asset class for investment in the UK. Chart 8 shows capital investments in the main types of commercial assets from 2006 to 2021. Total investments were halved from previous volumes by the 2008 financial crisis, but returned to pre-crisis levels in 2014. For comparison, total foreign direct investment in the UK has grown from £748bn in 2011 to 1.93tn in 2020.[20] After a notable fall in 2016, investment in UK commercial real estate rebounded in 2017 but declined steadily in the following years, mostly due to lower investments into office and retail assets. Retail volumes in particular have been decreasing since 2015, while the last decade saw a substantial increase in investments into industrial and other assets (which include 'alternatives'). Comparing 2006 with 2021, it is clear that retail and office assets used to be the favoured choice of investors before the financial crisis, but now industrial and other assets combined attract larger volumes.

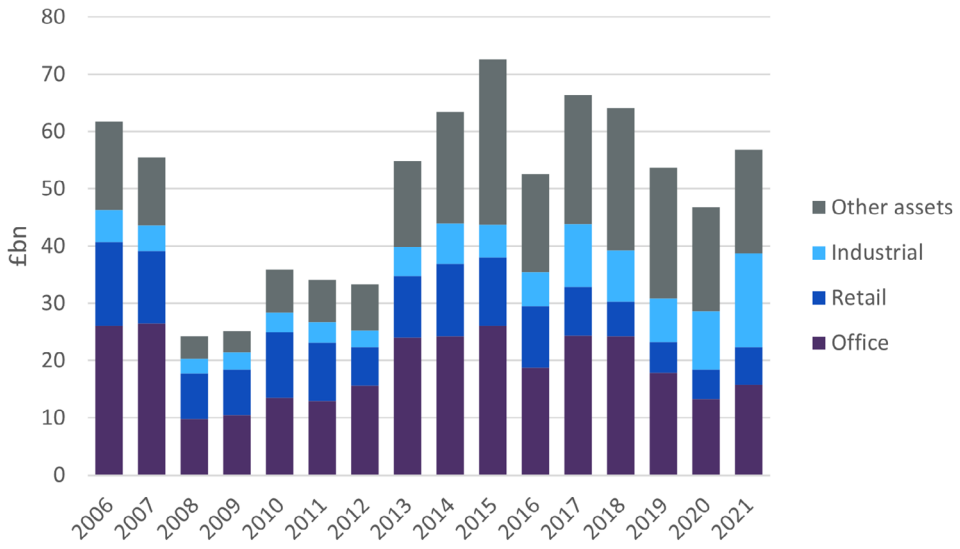


Chart 8: Investment volumes in UK commercial real estate from 2006–2021, breakdown by sector (source: BNP Paribas Real Estate, 2022)[21]

Chart 9 shows the same investment volumes broken down by investor location. Domestic investors made up 70% of volumes in 2006 but this share is closer to 50% now. Therefore the share of foreign investment has grown substantially over the years, with US investors now representing more than 20% of total volume.

19 MacNaughton, P., Satish, U., Cedeno Laurent, J.G., Flanigan, S., Vallarino, J., Coull, B., Spengler, J.D., Allen, J.G. 2017. The impact of working in a green certified building on cognitive function and health. Building and Environment, Volume 114, 2017, pages 178-186, https://doi.org/10.1016/j.buildenv.2016.11.041

20 ONS, 2022. Foreign direct investment involving UK companies: 2020. [online] Available at: https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/bulletins/foreigndirectinvestmentinvolvingukcompanies/2020

21 BNP Paribas Real Estate 2022. UK Economic and Real Estate – 2022 Outlook. Available at: https://bnpparibas.turtl.co/story/uk-economic-and-real-estate-briefing-january-2022/page/1

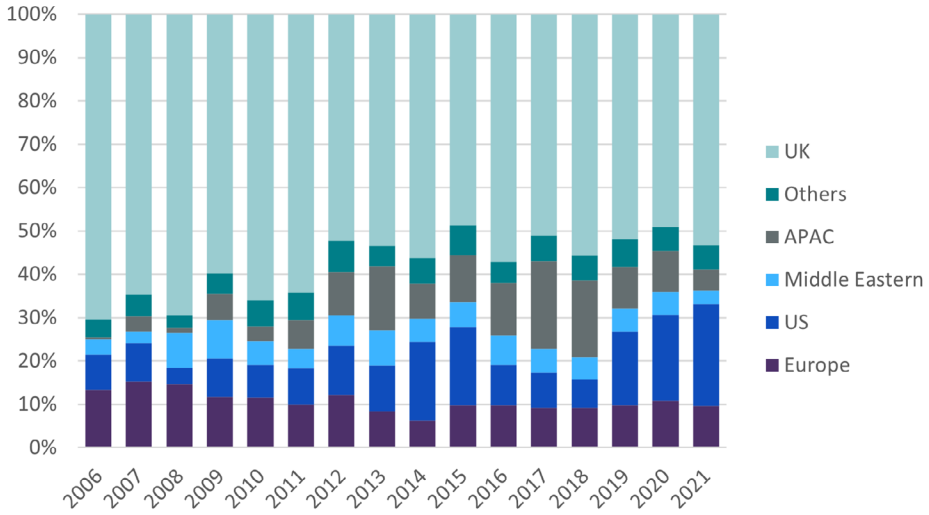


Chart 9: Investments in UK commercial real estate from 2006–2021, breakdown by investor origin (source: BNP Paribas Real Estate, 2022)

Drilling down further to look at investor types, Chart 10 shows that domestic pooled investment vehicles and real estate investment trusts (REITs) have the largest share of investment in UK commercial assets. Notably, UK pension funds have about £40bn invested in such assets, but this is lower than the levels of previous years. In the past, domestic investors mostly favoured retail and office assets located in Southeast England and London, while foreign investors preferred offices in and around the capital.[22] Data from the MSCI UK Annual Index indicates that this split has grown in the last decade, as domestic institutional investors have sold a proportion of their London assets to foreign buyers and broadened their focus, investing mostly into hotels, offices, student accommodation and warehouses across the rest of the UK.[23]

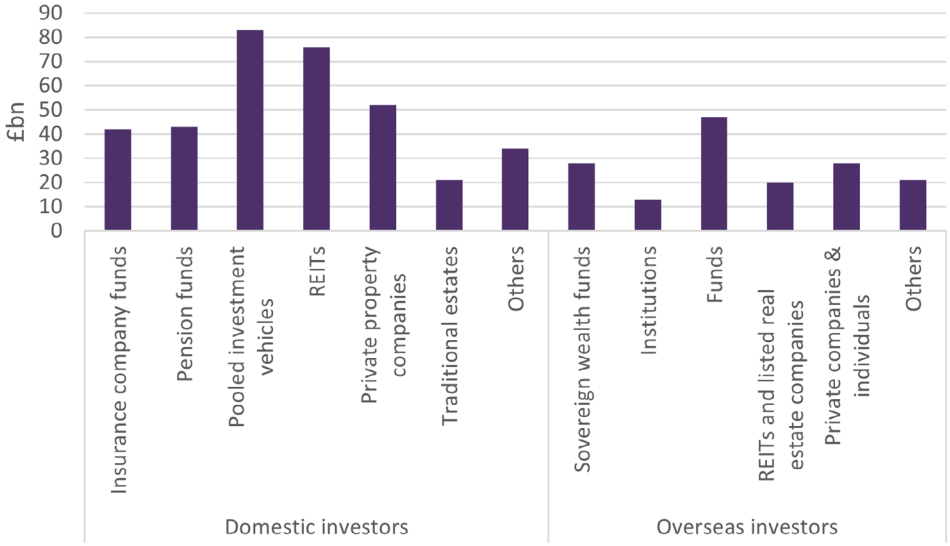


Chart 10: Invested UK commercial real estate as of the end of 2020, by investor type and location (source: IPF, 2022)[24]

22 IPF 2018. The Size & Structure of the UK Property Market – Year-End 2018 Update Tables and Figures. Available at: https://www.ipf.org.uk/resourceLibrary/the-size---structure-of-the-uk-property-market---year-end-2018-update-tables-and-figures-.html

23 Schroders 2021. Levelling up the UK: will real estate investors look outside London? Available at: https://www.schroders.com/en/il/professional-investor/insights/markets/levelling-up-the-uk-will-real-estate-investors-look-outside-london/

24 IPF 2022. The Size and Structure of the UK Property Market: End-2020. Available at: https://www.ipf.org.uk/resourceLibrary/the-size---structure-of-the-uk-property-market-year-end-2020--january-2022--report.html

Charts 11 and 12 show changes in rental value and capital value indexes, respectively, in the last six years. In terms of rental value, industrial assets increased steadily every year and had a significant rise in 2021. The value of offices and other assets grew moderately until 2019 and remained fairly stable afterwards. Conversely, all three types of retail have been losing rental value after 2018, especially shopping centres. Looking at capital value shows similar trends, with industrial asset value rising sharply in 2021. In fact all asset types, except shopping centres, show at least a moderate increase in 2021.

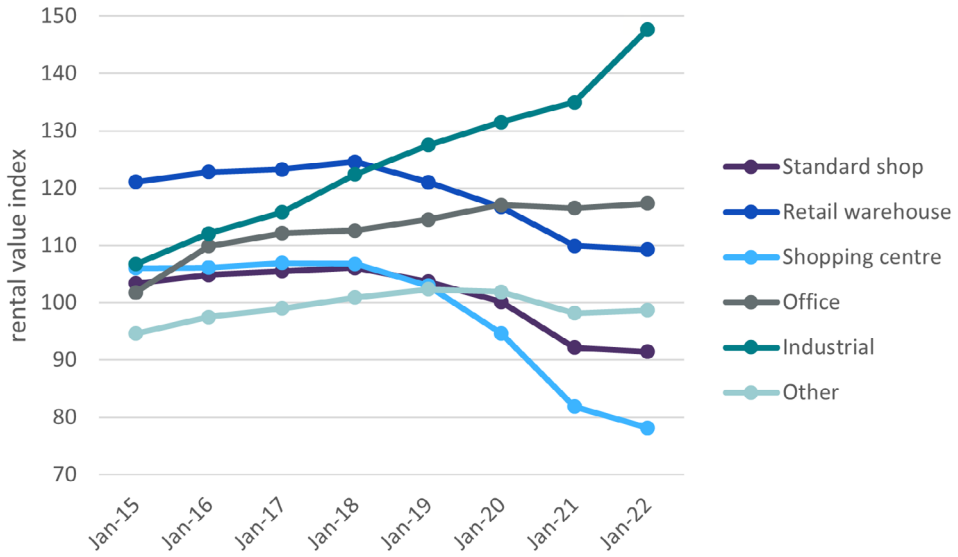


Chart 11: Rental value index from January 2015 to January 2022 (source: CBRE Ltd, 2022)[25]

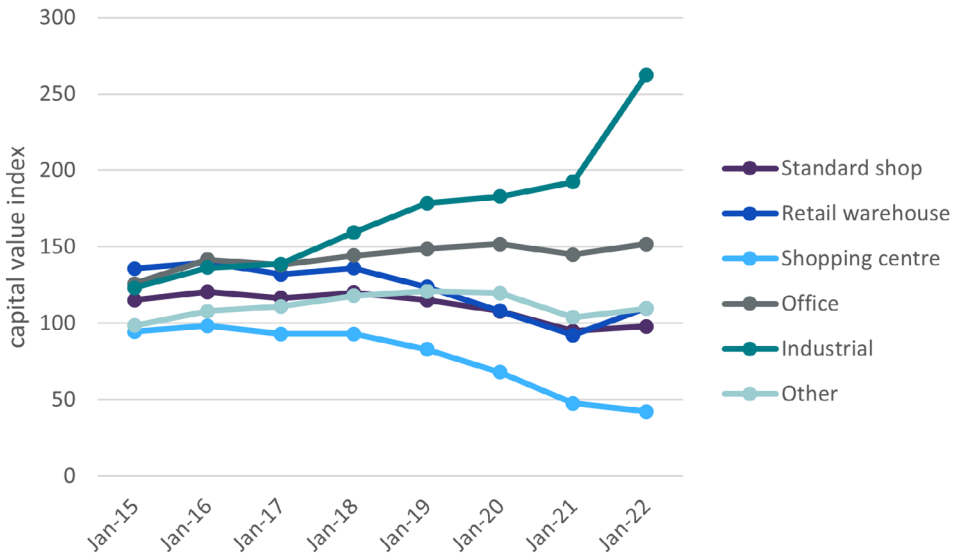


Chart 12: Capital value index from January 2015 to January 2022 (source: CBRE Ltd, 2022)

25 CBRE Ltd 2022. CBRE UK Monthly Index – February 2022

Chart 13 shows a forecast of the performance of the main types of commercial assets up to 2026. Industrial assets are expected to have the most growth in terms of capital and rental values, followed by offices and retail warehouses. The values of standard retail spaces and shopping centres are expected to remain stable or shrink slightly. Returns are forecast to increase for all asset types, although more strongly for industrial buildings and warehouses.

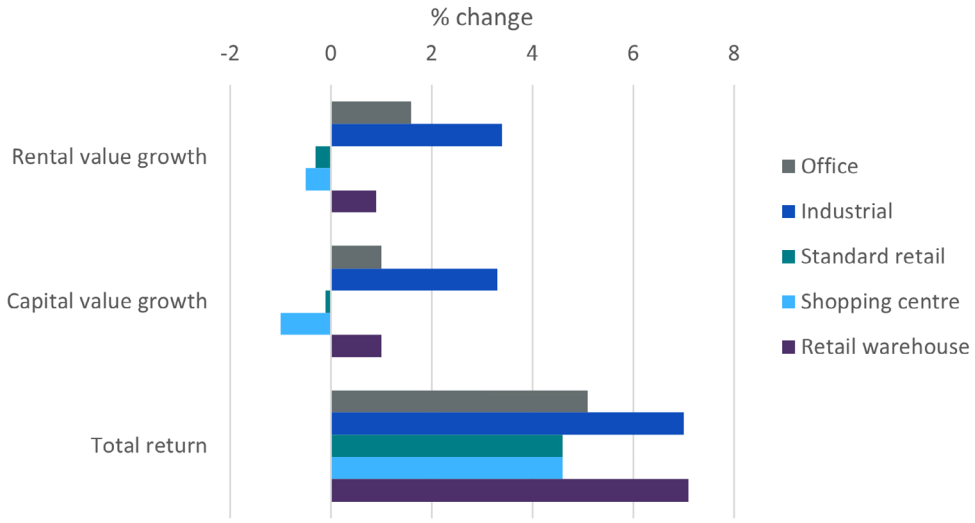


Chart 13: Forecast of UK commercial real estate performance by average annual changes 2022–2026, by subsector (source: IPF, 2022)[26]

26 IPF 2022. Winter 2021-2022 Survey of Independent Forecasts for UK Commercial Property Investment

# 2 Challenges

This section presents an outline of the main challenges faced by the commercial real estate sector, structured across three areas: business, society and environment.

## 2.1 Business challenges

The UK commercial real estate sector is facing major challenges impacting its business performance and viability:

- The current national and international contexts are marked by uncertainties associated with structural changes, recovery from the COVID-19 pandemic, Brexit, the impact of inflation and rising energy prices and concerns about rising political instability.
- The pressure created by structural changes and investors' requirements increases the need to:
  - understand and adapt to changing customer demands
  - upgrade assets and contribute to levelling up objectives, and
  - digitalise business and asset operations.

### 2.1.1 Business performance

As a whole, the commercial real estate sector has struggled in the last five years and was hit particularly hard by the pandemic. Chart 14 shows that after a slow recovery from the 2008 financial crisis, commercial transactions in the UK stalled from 2016 to 2018 below pre-crisis volumes. Transactions had begun to fall in 2019 even before the pandemic, and its effects are clearly visible in the 2020 dip. Volumes picked up again at the end of 2020, and in 2021 returned to levels comparable to those before the pandemic.

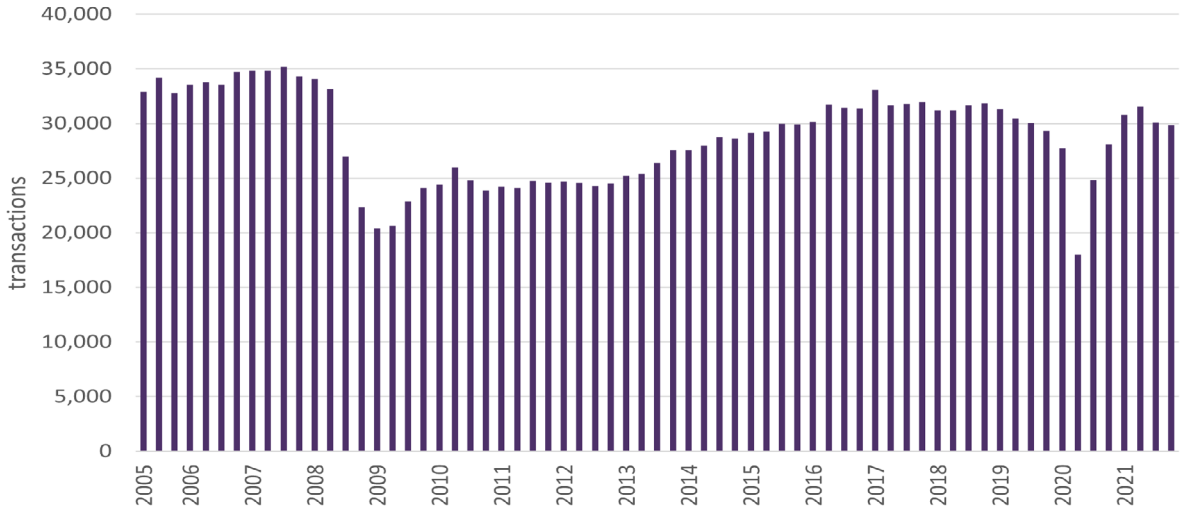


Chart 14: Quarterly non-residential transactions (above £40,000) in the UK from 2005–2021 (source: HM Revenue and Customs, 2021)[27]

27 HM Revenue and Customs 2021. Monthly property transactions completed in the UK with value of £40,000 or above. Available at: https://www.gov.uk/government/statistics/monthly-property-transactions-completed-in-the-uk-with-value-40000-or-above

Generally, the three main subsectors of commercial real estate (retail, office and industrial) have tracked together in the past, but Chart 15 shows their trends diverging since 2016. Occupier demand for industrial assets kept growing until 2019, only suffered a minor setback in 2020, and grew substantially in 2021. Conversely, demand for retail assets had already been diminishing since 2016 – due to the rise of online shopping – and despite a rebound in 2021, is still perceived to be in decline. The office subsector lies in between, as demand remained fairly stable from 2016 to 2019, fell substantially in 2020 and had returned to stability in 2021.

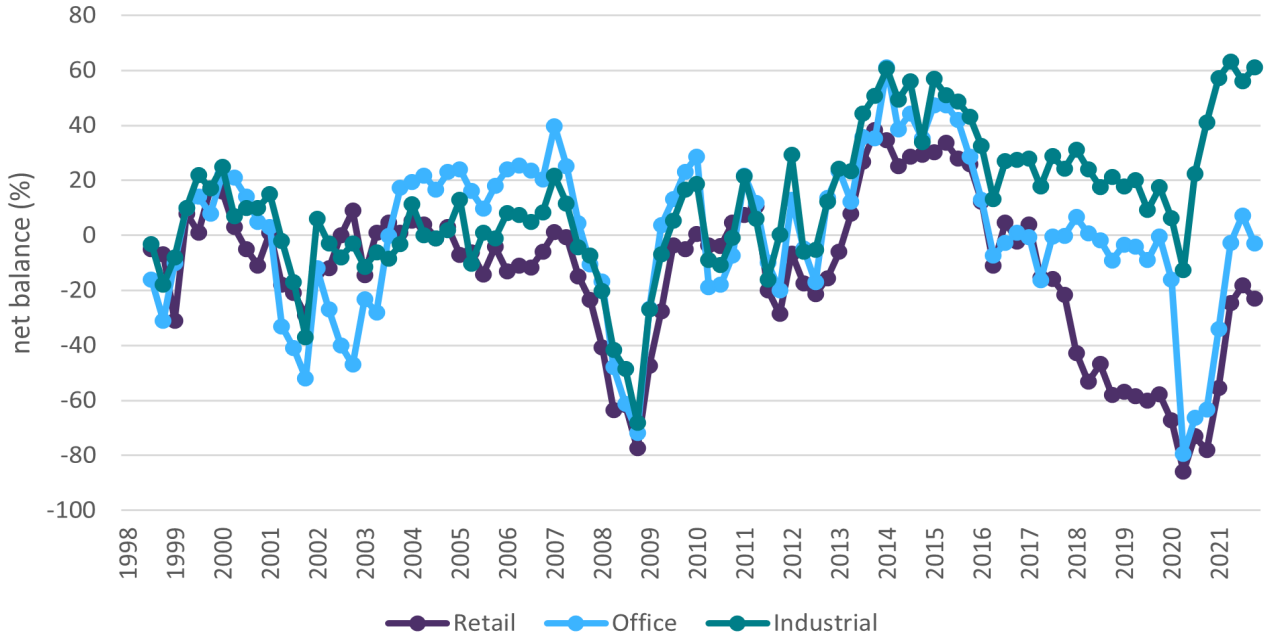


Chart 15: Perception of occupier demand for commercial real estate in the UK, breakdown by sector (source: RICS, 2022)[28]

## 2.1.2 Post-pandemic recovery and structural changes

The periods of lockdown and restrictions made necessary by the pandemic have forced many commercial tenants to halt their business activities or operate at lower capacity, while most shopping moved to online outlets, accelerating a trend that was already in place. Working from home became the new normal for office workers, which prompted both employers and employees to question the traditional role of the office as the place where work gets done. The recovery from the pandemic is on its way, but it remains to be seen to what extent the changes of the last two years will be reversed, and how they will impact the economic viability of existing and prospective assets.

### Retail

As shown above, the retail subsector was already struggling before 2020. Vacancy rates across the UK were at 13% in 2019, with the lowest in London (9%) and the highest in the Northeast (19%).[29] Average rates increased further during the pandemic and peaked at 14.5% in Q2 and Q3 of 2021, when 10% of high street shops and over 13% of retail units in shopping centres had been empty for over a year.[30]

28 RICS 2022. UK Commercial Property Market Survey: Q4 2021. Available at: https://www.rics.org/contentassets/fcce65aa9cc7444a803beff8ff040461/uk-commercial-property-market-survey---q4-2021.pdf

29 Morton, A. and Elsden, J. 2021. Reshaping Spaces - Building Back Better. London: Centre for Policy Studies. Available at: https://cps.org.uk/wp-content/uploads/2021/07/210716150853-CPSRESHAPINGSPACES2.pdf

30 British Retail Consortium 2021. Vacancies Plateau at Record High. [online] Available at: https://brc.org.uk/retail-insight/content/monitors/vacancies-monitor/reports/2021q3_vr/

Retail parks have fared better, as businesses moved out of towns and needed more storage space to cater for distribution. 'Experiential' high-quality retail units are also among the least impacted asset types. All vacancy rates had started to decline by the end of 2021, although regional differences remain, with the Southeast of England recovering much faster than Scotland and the Northeast.[31]

Research from the Centre for Cities shows significant differences in the way retail businesses were hit by the pandemic and are now recovering from it. To begin with, businesses located in 'weaker' cities suffered fewer losses, as their sales were mostly generated by essential goods, while in 'stronger' cities sales were more reliant on food, drink and entertainment. Stronger cities are defined as those with higher shares of jobs in exporting firms (firms who sell outside the local area) and higher shares of these jobs that are high-skilled. Differences can also be seen within cities, as retail businesses located in the suburbs did not suffer as much as those located in the centre, with an average of 9 weeks of sales lost (since March 2020) in the suburbs against 28 weeks in centres. Moreover, while both hospitality and fashion businesses were hit hard during lockdowns, since summer 2021 hospitality sales have risen above pre-pandemic levels but fashion sales remain well below those levels.[32]

## Office

The office subsector was relatively stable before the pandemic but suffered considerably in 2020, as vacancy rates increased in almost all major UK cities (Chart 16) and have continued to rise. With the easing of COVID-19 restrictions, workers have steadily started going back to the office, but as of November 2021 across the UK only 23% of staff had returned to their office.[33]

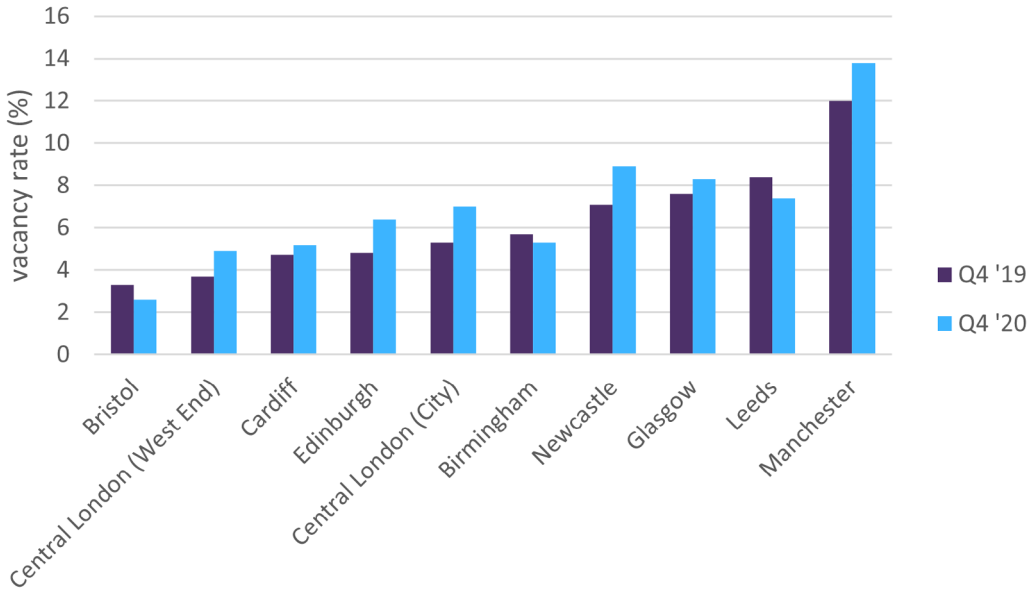


Chart 16: Vacancy rates for offices in major UK cities (source: BNP Paribas Real Estate 2021)[34]

31 British Retail Consortium, 2021. Vacancies Finally Start to Fall. [online] Available at: https://brc.org.uk/retail-insight/content/monitors/vacancies-monitor/reports/2021q4_vr/

32 Centre for Cities 2022. Cities Outlook 2022. Available at: https://www.centreforcities.org/wp-content/uploads/2022/01/Cities-Outlook-2022-2.pdf

33 Financial Times 2021. UK office owners left to sweat on the future of work. [online] Available at: https://www.ft.com/content/d6e2ffb6-375b-4c71-b4d0-e2c7621ea92c

34 BNP Paribas Real Estate 2021. Main office markets in Europe - At a glance Q4 2020. Available at: https://www.realestate.bnpparibas.com/sites/default/files/2021-02/AAG%20Office%20Q4%202020.pdf

Although no one can predict the future, experts see most office workers shifting permanently to some form of hybrid working, where people commute to the office for only part of the week. This is backed up by workforce surveys, as people expressed their preference for flexible solutions and the freedom to choose when to go to the office and when to remain at home. Nearly 80% of respondents to a 2021 JLL survey said they would want to be back in the office at least one day per week.[35] This demand for flexibility is not just a UK trend, as 85% of European respondents to a PWC survey believed that there will be a lasting increase in the proportion of people working remotely.[36] This change is bound to have an impact not only on the demand for office space, but also on the type of space preferred by workers. 60% of respondents to a 2021 survey by RSM expected overall office demand to decrease in the next two years, while over 80% believed demand for flexible office space solutions will increase.[37] In fact, among the respondents to the RICS Commercial Property Monitor for Q4 2021, 76% reported seeing a relative increase in demand for flexible and more local workspaces.[38]

Companies realise that while hybrid working might reduce their need for conventional desk space, their office needs more meeting space, amenities and comfort in order to entice employees to commute. To gain advantage in their market, office owners will need to improve the quality of their assets and services, and learn to be more flexible to meet the needs of their tenants. However, if most UK companies do indeed shift to a hybrid working regime, even a small decrease in office demand might be problematic. A conservative estimate by MSCI based on the share of rental income depending on leases expiring in the next five years shows that around 40% of rental income could be eroded by 2025.[39]

### 2.1.3 Increasing costs

The rebound in demand after the COVID-19 pandemic and the aftermath of Brexit are having an impact across all sectors of the UK economy, including commercial real estate. Foreign investors are concerned about the available supply of construction materials and their rising costs. This is due to a combination of logistical issues and additional cost for imports, as well as price increments due to the rising energy costs of product manufacturing.[40]

Chart 17 shows that prices of materials used in new construction and repairs have increased considerably since the end of 2020. Changes in immigration policies have also reduced the pool of workers available to the construction industry and therefore increased employment costs.[41]

35 JLL 2021. Shaping the future of work: Four foundational truths. Available at: https://www.jll.co.uk/content/dam/jll-com/documents/pdf/articles/Shaping-the-future-of-work-white-paper-design.pdf

36 PwC and the Urban Land Institute. Emerging Trends in Real Estate Europe 2022. London: PwC and the Urban Land Institute, 2021. Available at: https://www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/emerging-trends-in-real-estate-europe-2022.pdf

37 RSM 2021. Real Estate 360 - 2021. Available at: https://www.rsmuk.com/ideas-and-insights/real-estate-360#Download

38 RICS 2022. Economy and Property Market Update – February 2022. Available at: https://www.rics.org/globalassets/rics-website/media/knowledge/research/market-surveys/rics-economy-and-property-update-february-2022.pdf

39 MSCI 2020. MSCI Real Estate Research Snapshot Part 2. Available at: https://www.msci.com/www/research-paper/msci-real-estate-research/02218886297

40 CBRE 2021. A Perfect Storm for Building Costs [online] Available at: https://www.cbre.co.uk/services/business-lines/building-consultancy/build-insight/articles/a-perfect-storm-for-building-costs

41 RIBA Journal 2021. Material concerns and labour pain: is construction facing a major crisis? [online] Available at: https://www.ribaj.com/intelligence/materials-and-skills-shortages-in-construction

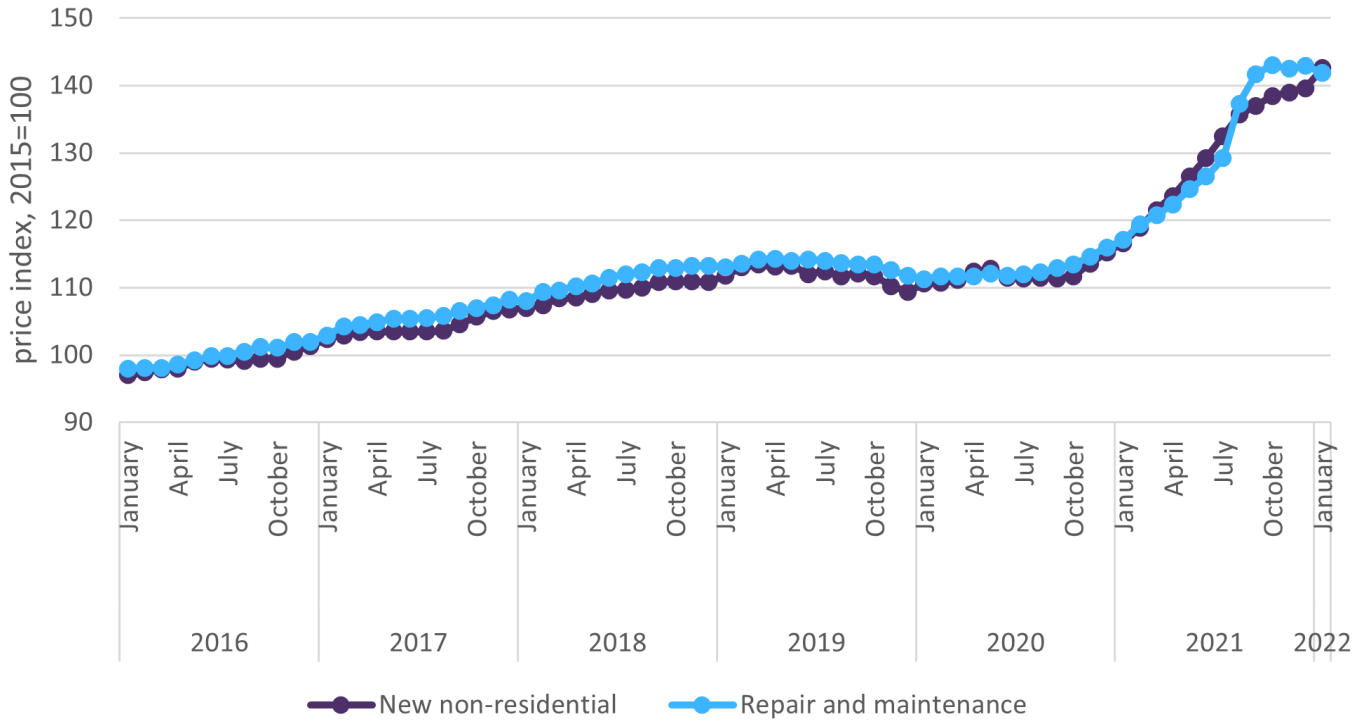


Chart 17: Price index for construction materials used in new non-residential construction/repair and maintenance activities in the UK, 2016–2022 (source: BEIS, 2022)[42]

### 2.1.4 Realising the levelling up agenda

A key objective of the levelling up agenda is the revitalisation of urban centres and high streets in the less-developed areas of the UK. The retail sector was already suffering due to the increase in online shopping; the pandemic aggravated this situation by forcing closures and discouraging people from shopping in person. The move to home-based working also took away much of the activity generated by offices in urban centres. While people are returning to in-person shopping and office-based working, it is considered unlikely that the changes brought about by the pandemic will be entirely reversed.

Commercial properties form an essential part of vibrant high streets, as social activity gravitates towards shops and services while workplaces bring businesses and visitors.[43] But lively city centres are outcomes of healthy urban economies rather than drivers,[44] and the provision of high-quality spaces is critical for a vital economy. Research by the Centre for Cities (Chart 18) shows that strong city centres have much larger proportions of floorspace for offices than retail, and that those offices are of high quality. Strong city centres also have, on average, lower vacancy rates in commercial properties.[45] However, the current trend towards flexible working may reduce the need for office space. The research suggests that weak city centres should re-evaluate their need for retail spaces, and enable commercial property firms to renovate and adapt their assets into diverse uses that can

42 BEIS 2022. Building materials and components statistics: February 2022. Available at: https://www.gov.uk/government/statistics/building-materials-and-components-statistics-february-2022

43 PWC 2021. Levelling up the UK - Five success factors for delivering a fair recovery. Available at: https://cloud.uk.info.pwc.com/levelling-up-uk

44 Centre for Cities 2022. High streets. [online] Available at: https://www.centreforcities.org/high-streets/

45 Centre for Cities 2022. Cities Outlook 2022. Available at: https://www.centreforcities.org/wp-content/uploads/2022/01/Cities-Outlook-2022-2.pdf

attract both residential and commercial tenants. The significant impact of lockdown measures on the economic performance of urban centres that lack local residents (such as central London) points to the importance of creating economic resilience by combining commercial and residential buildings.

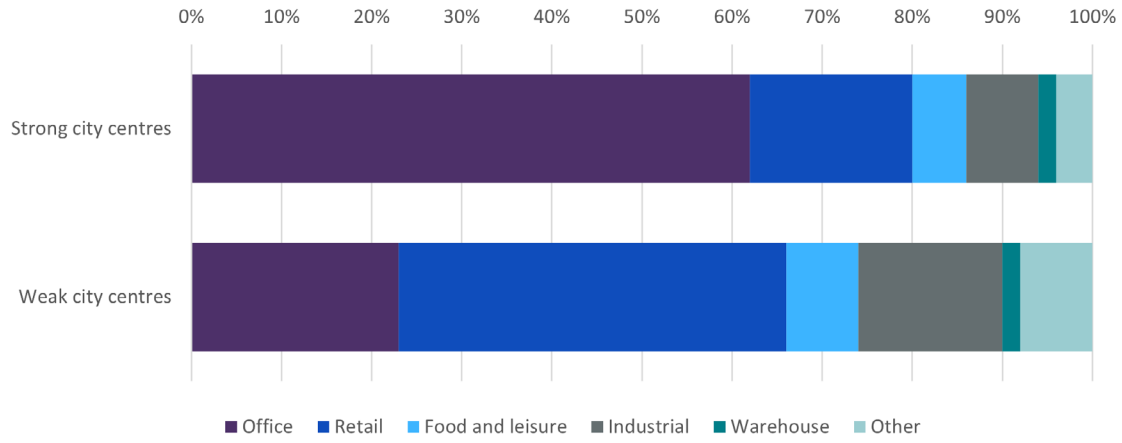


Chart 18: Composition of commercial floorspace in different types of city centre in the UK in 2017 (source: Centre for Cities, 2018)[46]

There is also a need to support businesses through public funding, as commercial property owners in secondary and tertiary locations are much less able to afford the cost of upgrading their assets, including the necessary improvements in environmental performance. However, the spending power of local authorities has fallen in recent decades, and the government commitment to funding for local authorities appears to be substantially less than what is estimated to be needed to keep basic services at current levels.[47] Moreover, investment for levelling up is often seen as synonymous with investment into infrastructure. While this is certainly needed, there is a risk that capital will flow disproportionately towards infrastructure and other asset types with high returns.

### 2.1.5 Digitalisation

The pandemic highlighted the importance of digitalising assets and services, and accelerated the pace of the digital transformation in many sectors of the economy. Most industry leaders now understand the shortcomings of their companies' digital capabilities,[48] and so after years of slow uptake the commercial real estate sector is more open to the multiple benefits of digitalisation, such as the following:

- Access to detailed and accurate data on asset use and occupancy patterns creates clarity on performance, increases business efficiency and provides new ways to meet the changing demands of clients. With the majority of commercial assets being held and traded in essentially a private market, data is not widely shared and information asymmetry rewards buyers of mispriced assets. Data for many assets is currently poorly curated, in many cases available only in document form

46 Centre for Cities 2018. Building Blocks. The role of commercial space in Local Industrial Strategies. Available at: https://www.centreforcities.org/publication/building-blocks/

47 Local Government Association 2021. Local services will cost at least £8bn more by 2024, which cannot be funded by council tax alone. [online] Available at: https://www.local.gov.uk/about/news/lga-local-services-will-cost-least-ps8bn-more-2024-which-cannot-be-funded-council-tax

48 Deloitte 2021. 2021 CRE Outlook. Available at: https://www2.deloitte.com/za/en/pages/financial-services/articles/2021-commercial-real-estate-outlook.html

at best, and both cultural and technological barriers need to be overcome to develop structured datasets that support improved asset management, retrofit, building performance and safety, and arguably to support a more transparent and lower-risk investment class given the exposure of lenders and retail investors to major market corrections.

- Robust data on building performance and occupancy allows for better management of operations, with opportunities to lower energy use and thus operational costs and carbon emissions. Accurate monitoring of building use also enables better access control and improves the security of occupants.[49] With the vast majority of commercial properties lacking sensors and other smart building management systems, there is a considerable challenge in understanding and managing building performance, which is compounded by information barriers between landlord and tenant on energy use, emissions and waste data.

However, digitalisation is also a risk as investment in early innovations is challenging and may not result in the expected benefits. In fact, most digital transitions fail, often because of a lack of buy-in from staff.[50] Managers feel the need to digitalise but lack the technical knowledge to set out a clear strategy with objectives that can be understood and shared by the rest of the company, and the execution is left to under-resourced IT teams.[51] Digitalisation also comes with other risks, most notably cybersecurity.[52] Occupancy data can provide sensitive information about people and businesses, and while remote access and control of building functions can be beneficial, it also creates new opportunities for security breaches.

## 2.2 Social challenges

As with the rest of the economy, the commercial real estate sector must answer:

- the growing demand for social value creation and the acknowledgement of corporate responsibility in the face of rising social inequality, and
- the need to address physical and mental health and well-being issues.

While businesses cannot be expected to have all the solutions, it is clear that these problems are particularly relevant for the sector. In the latest survey of European real estate leaders by PWC and ULI,[53] a large majority of respondents (64%) indicated social inequality as a concerning issue, and an overwhelming majority (92%) believed that health and well-being will remain a very important factor for the sector.

49 Forbes 2021. The State Of Digital Transformation In The Real Estate Industry 2021: The Good, The Bad And The Ugly. [online] Available at: https://www.forbes.com/sites/forbesrealestatecouncil/2021/04/29/the-state-of-digital-transformation-in-the-real-estate-industry-2021-the-good-the-bad-and-the-ugly/?sh=4bb172815a9b

50 McKinsey 2016. The 'how' of transformation. [online] Available at: https://www.mckinsey.com/industries/retail/our-insights/the-how-of-transformation

51 World Economic Forum 2021. Driving Digitalization: Value Creation for Commercial Real Estate. Available at: https://www3.weforum.org/docs/WEF_Driving_Digitalization_Real_Estate_2021.pdf

52 PwC and the Urban Land Institute. Emerging Trends in Real Estate Europe 2022. London: PwC and the Urban Land Institute, 2021. Available at: https://www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/emerging-trends-in-real-estate-europe-2022.pdf

53 PwC and the Urban Land Institute. Emerging Trends in Real Estate Europe 2022. London: PwC and the Urban Land Institute, 2021. Available at: https://www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/emerging-trends-in-real-estate-europe-2022.pdf

### 2.2.1 Social value

Across the world, and particularly in developed countries such as the UK, there is increasing pressure to measure and report non-financial metrics that describe the social and environmental impact of business activities. The rise of related concepts such as ESG reporting, sustainable finance and 'impact investing'[54] pushes firms not only to measure their impacts but also to take actions to improve them, in order to gain reputation and attract investment. This creates a shift in fiduciary duties towards the inclusion of non-financial objectives alongside economic returns. Besides pressure from clients and investors, businesses will soon face regulations imposing ESG reporting and requiring positive environmental and social impacts in order to access finance and incentives.

On the social side, the attention of investors and institutions (including the UK government) is focused on the ability to create and enhance social value through economic activity. Social value can be broadly defined as 'the quantification of the relative importance that people place on the changes they experience in their lives'.[55] Practically, it encompasses a range of personal factors (such as well-being and self-esteem), relational factors (such as governance and social interactions) as well as material ones (such as income, health and natural environment quality). As the built environment has a large role in shaping these factors, the real estate sector is expected to do its part by changing the way developments are assessed, designed and delivered, and by making social value measurement and reporting an integral part of asset management.[56]

As with other facets of sustainability, the lack of consistency in the measurement of social value is a significant challenge and an obstacle to its delivery in practice.[57,58] This applies to all sectors of the economy, but is a particularly acute issue for commercial real estate, as buildings are occupied for decades by different types of users, and bear environmental and social consequences that go well beyond the perimeter of the site. The construction and operation of buildings create significant potential for social value gains and losses that are difficult to understand and foresee in their entirety, and nearly impossible to translate into a fixed set of quantitative metrics.

### 2.2.2 Health and well-being

One of the less expected consequences of the pandemic has been the increased importance that people have placed on their health and well-being, both physical and mental. Besides re-evaluating personal life choices and habits, many people are reconsidering their working arrangements and the extent to which their employees provide them with comfortable and healthy workplaces. Combined with a backlog of people who had held on to unsatisfactory jobs during the pandemic and are now looking for new employment, this created the 'great resignation' that many companies are experiencing across developed countries, including the UK. A 2021 survey by Randstad[59] found that

54 Impact Investing Institute, 2022. Estimating and describing the UK impact investing market - March 2022. Available at: https://www.impactinvest.org.uk/wp-content/uploads/2022/03/Estimating-and-describing-the-UK-impact-investing-market.pdf

55 Social Value UK 2022. What is social value? [online] Available at: https://socialvalueuk.org/what-is-social-value/

56 UK GBC 2020. Driving social value through real assets. Available at: https://www.ukgbc.org/wp-content/uploads/2020/04/Driving-Social-Value-Bitesize-Briefing.pdf

57 PwC and the Urban Land Institute. Emerging Trends in Real Estate Europe 2022. London: PwC and the Urban Land Institute, 2021. Available at: https://www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/emerging-trends-in-real-estate-europe-2022.pdf

58 UK GBC 2020. Delivering Social Value: Measurement. Available at: https://ukgbc.s3.eu-west-2.amazonaws.com/wp-content/uploads/2020/04/05145348/Delivering-Social-Value-Measurement.pdf

59 Randstad 2021. The great resignation: 69% of UK workers ready to move job. [online] Available at: https://www.randstad.co.uk/about-us/industry-insight/great-resignation/

nearly 70% of UK workers felt confident about getting a new job in the next few months, and 24% were planning to do so within three to six months. This is against a typical annual rate of 11% of workers changing their job.

The 2021 JLL Workforce Preferences Barometer survey[60] showed that most employees (60%) considered health and well-being the key element that will make their employer unique in the long term, and only 36% are able to maintain strong working and personal interactions with colleagues when working from home. In order to retain their current staff and attract new talent, companies understand that they need to offer workplaces that are not just pleasant and well-equipped, but are also 'as comfortable as home' and create the right conditions for creative and collaborative work. JLL defines this concept as the 'regenerative workplace': a place where the conventional contrast between work and personal life is resolved, and employees feel safe and looked after by their employers.[61]

Meeting such aspirations requires buildings of high quality, as well as managers who can make the best of their assets and find innovative holistic solutions to meet the demands of their occupants. Commercial real estate firms are at the very centre of this trend, as they must step up their services while taking care of their own staff, who have also been significantly impacted by the pandemic.[62,63]

There are signs that the sector is becoming aware of this need; for example, the RICS Facilities Management survey shows that between 30% and 40% of respondents generally indicate health and well-being to be the area of sustainability that has seen the largest increase in investment in the last year (Chart 19).

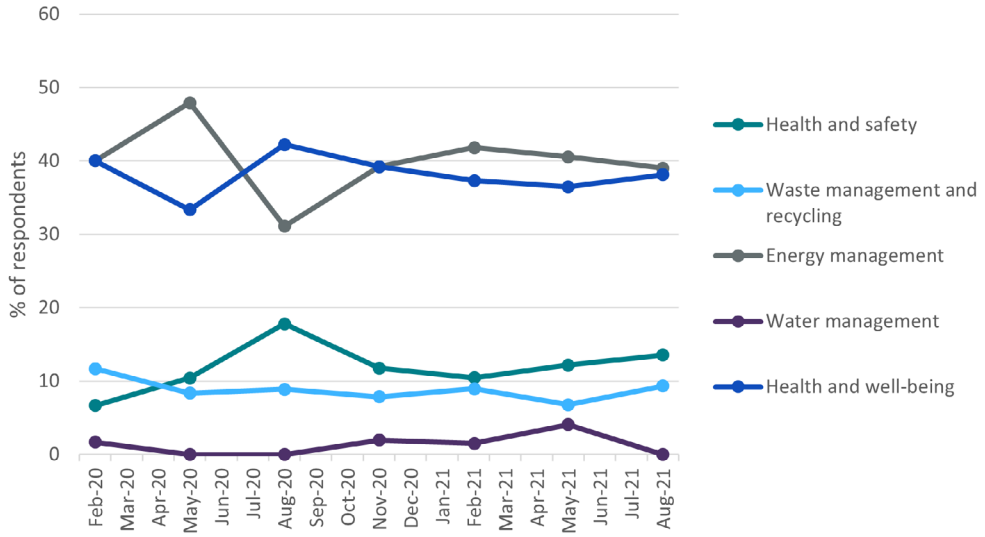


Chart 19: Responses to the question 'Which of the following areas of sustainability has seen the strongest growth in investment over the past 12 months?', contained in the RICS Facilities Management survey (source: RICS, 2021)[64]

60 JLL 2021. Worker Preferences Barometer. Available at: https://www.jll.co.uk/en/trends-and-insights/research/worker-preferences-barometer

61 JLL 2021. Regenerative Workplace. Available at: https://www.jll.co.uk/en/trends-and-insights/research/regenerative-workplace

62 Agents Together 2020. Workplace Mental Health in Estate Agency. Available at: https://www.yumpu.com/en/document/read/65230795/workplace-mental-health-in-estate-agency-20-21

63 Lionheart 2021. Impact Report 2021. Available at: https://www.lionheart.org.uk/news/lionheart-2021-impact-report-published

64 RICS 2021. UK Facilities Management Survey Q3 2021. Available at: https://www.rics.org/globalassets/rics-website/media/news/press-releases/q3-2021-rics-facilities-management-survey.pdf

## 2.3 Environmental challenges

After decades of being a controversial topic, climate change is finally acknowledged as the great challenge of our time, and its consequences are becoming apparent across the world. The UK has pledged to do its part in reducing carbon emissions, and its commercial real estate sector must do its part too, although its assets are responsible for less than a third of the total emissions associated with UK buildings.[65]

To avoid having its assets fall into obsolescence and lose economic viability, the commercial real estate sector needs to:

- accelerate the decarbonisation of its building stock
- mitigate the risks posed by climate change and
- respond to investors' demands for truly sustainable buildings, marked by the rise of ESG reporting and sustainable finance.

### 2.3.1 Decarbonisation of commercial buildings

Buildings generate carbon emissions throughout their life cycle. When a new building is constructed or an existing one is renovated, the upstream emissions associated with materials extraction, manufacturing and transportation become 'embodied' in the asset as an upfront carbon expenditure. During the use phase of the building, 'operational' emissions are constantly generated due to energy consumption for heating, cooling, ventilation and other services, either on site or remotely via electricity use. Commercial buildings are no exception, and in fact some asset types (such as offices) have much higher operational emissions per square meter than dwellings,[66] due to high energy demand from building services.

Just as residential landlords do, commercial landlords face the need to lower the emission rates of their properties substantially in order to align with national targets. For reference, the average UK office should decrease its emissions from about 120 to below 50 $kgCO_2eq/m^2$ per year by 2030, and to nearly zero by 2050.[67] The UK government intends to measure this transition through Energy Performance Certificate (EPC) ratings, possibly requiring commercial properties to achieve at least a class B rating by 2030. Given the lack of transparency and comparability associated with the SBEM (Simplified Building Energy Model) methodology used to calculate EPC ratings for non-residential buildings, it is arguable that in their current form EPCs are not sufficient to monitor and target decarbonisation efforts in the commercial real estate sector. Moreover, as they only measure predicted performance, they are inherently not appropriate for regulating real carbon emissions (based on metered energy use) that arise from the actual operation of buildings.

Notwithstanding the methodological issues of EPCs, most new construction projects can achieve and surpass EPC B ratings through passive design principles and renewable energy sources, which can be mandated through building regulations and planning requirements. The greatest challenge lies with existing buildings, as most properties are highly energy- and carbon-intensive, and many will still be in use for decades. These buildings require substantial interventions such as fabric insulation and service replacement in order to achieve acceptable levels of carbon emissions. Such measures are expensive and have long payback periods, but must be rolled out across the UK building stock rapidly in order to

65 Committee on Climate Change 2015. Buildings factsheet. Available at: https://www.theccc.org.uk/wp-content/uploads/2014/08/Fact-sheet-buildings-updated-July-2015.pdf

66 CRREM 2021. CRREM Global Pathways. Available at: https://www.crrem.org/pathways/

67 CRREM 2021. CRREM Global Pathways. Available at: https://www.crrem.org/pathways/

follow the decarbonisation path to 2050. This requires substantial investments of capital and a skilled workforce capable of delivering the right retrofit measures for each individual property. While owners of commercial assets in prime locations can more easily recuperate capital investments and access large pools of professionals, those who own properties in less favoured locations risk being unable to fund, design and procure the necessary measures, and will see their assets become stranded (see next section).

To complicate matters further, it is also clear that having a 'green building' (either new or retrofitted) is necessary but not sufficient to guarantee low operational carbon emissions. To realise their potential, green buildings must be managed by skilled professionals who actively pursue the minimisation of energy use and carbon emissions associated with building operations. Asset and facility managers of commercial properties have an essential role in the transition to a truly decarbonised commercial real estate sector by closing the performance gap and delivering real carbon savings through innovative energy management practices. Meanwhile, the progress of the proposal[68] by the government for a 'performance-based policy framework in large commercial and industrial buildings', which was open for consultation in summer 2021, appears to have halted.

Addressing embodied carbon is also a complex matter. While operational emissions usually represent the largest share of carbon across the whole life of an asset, most embodied emissions occur at the beginning of the life cycle and represent a sunk cost that must be subtracted from the already meagre budget of acceptable emissions on our way to zero carbon by 2050. Measuring and reporting embodied carbon is possibly even more difficult than operational carbon, as it relies on the accurate measurement of material quantities and associated material carbon intensities. Data transparency and consistency of reporting remain an issue in this field, and the industry struggles to understand the extent to which embodied carbon must be reduced and how it can be verified.

Against this background, the commercial real estate sector is becoming aware of the urgency of addressing climate change, and is looking to the government for clear guidance and the reassurance that the transition will provide opportunities for renewal and improvement, rather than rushed intervention and business disruption.

### 2.3.2 Risks of climate change and the carbon transition

Extreme weather events are becoming more intense and frequent across the world. Although the British Isles are less exposed to extreme weather than other regions, flooding events pose a significant tangible risk of physical damage to all types of assets. Such events will increase in severity and frequency, as the UK climate is forecast to become wetter in winters and drier in summers.[69] In England and Wales, areas at flood risk are home to over 4 million people and have property worth over £200bn.[70] To prevent flood damage, some measures can be taken on site, while others are taken at urban and regional scales. Such measures require investment but also provide substantial savings.

68 BEIS 2021. Introducing a performance-based policy framework in large commercial and industrial buildings. [online] Available at: https://www.gov.uk/government/consultations/introducing-a-performance-based-policy-framework-in-large-commercial-and-industrial-buildings

69 Met Office 2021. UK and Global extreme events – Heavy rainfall and floods. [online] Available at: https://www.metoffice.gov.uk/research/climate/understanding-climate/uk-and-global-extreme-events-heavy-rainfall-and-floods

70 Foresight Flood and Coastal Defence Project 2004. Future Flooding. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/300332/04-947-flooding-summary.pdf

The UK government estimated that flood defence schemes prevented £2.1bn of additional damage during the 2019-2020 winter.[71]

Summers are also expected to become warmer, which will aggravate the problem of overheating,[72] as UK buildings are designed largely to retain heat rather than dissipate it. Some property types, such as offices, are particularly prone to overheating due to the widespread use of glass facades. When indoor temperatures rise and surpass comfort levels, spaces become effectively unusable unless additional energy (and money) is spent on cooling services. In the face of rising energy costs, commercial tenants are likely to eschew buildings where summer means choosing between high utility bills or uncomfortable occupants. To prevent the loss of building functionality due to overheating, changes must be made in the way new buildings are designed, and existing properties must be retrofitted to reduce direct sunlight exposure and heat retention. But building regulations for non-residential buildings still do not cover overheating risks.

Besides the risks posed by the consequences of climate change, the transition itself creates the risk of stranding assets that do not adapt to the new climate and/or are seen as irredeemably inefficient. While green buildings command a rental premium (up to 11% in central London) and lower vacancy rates,[73] properties that fall behind are likely to suffer a 'brown discount' on their value. With each passing year, the cost of retrofitting these properties in line with decarbonisation targets increases, and will eventually pass the point where it remains economically feasible. Up to 50% of commercial buildings could be in this situation by 2035.[74] In addition to the loss of value for their owners, these properties might be abandoned and form a derelict landscape across the UK.

Funding streams are needed to support renovation of the existing commercial stock on a large scale, mitigating the risks of both function loss and asset stranding. The rapid rise of sustainable finance could supply such funding, but there is a risk that an excessive focus on the most sustainable assets could divert resources away from where they are actually most needed. In the short term, financing a new building that can relatively easily achieve net zero operational emissions can appear a better option than financing the renovation of an existing one that cannot achieve the same level of performance. But when emissions are considered over the whole life cycle of assets, renovations are often preferable over new constructions as they avoid large quantities of upfront embodied carbon.

71 Environment Agency 2020. Flood and coastal erosion risk management report: 1 April 2019 to 31 March 2020. Available at: https://www.gov.uk/government/publications/flood-and-coastal-risk-management-national-report/flood-and-coastal-erosion-risk-management-report-1-april-2019-to-31-march-2020#flood-risk

72 Betts, R.A. and Brown, K. 2021. Introduction. In: The Third UK Climate Change Risk Assessment. Technical Report [Betts, R.A.,Haward, A.B. and Pearson, K.V.(eds.)]. Prepared for the Climate Change Committee, London. Available at: https://www.ukclimaterisk.org/wp-content/uploads/2021/06/Technical-Report-The-Third-Climate-Change-Risk-Assessment.pdf

73 JLL 2020. The impact of sustainability on value: Central London. Available at: https://www.jll.co.uk/en/trends-and-insights/research/the-impact-of-sustainability-on-value

74 Carbon Intelligence 2020. Net Zero - The Guide for Commercial Real Estate. Available at: https://carbon.ci/landingpages/net-zero-the-guide-for-commercial-real-estate/

### 2.3.3 ESG reporting and sustainable finance

Activity around ESG reporting and sustainable finance has risen significantly in recent years. The United Nations Conference on Trade and Development (UNCTAD) estimated sustainability-themed financial products to be worth $3.2tn in 2020, an increase of more than 80% from 2019.[75] Competition to attract ESG flows is increasing on the global stage, with cities and regions positioning themselves as hubs for sustainable business. In the UK, investment products integrating ESG factors amounted to nearly half of the total invested assets in 2020, and most of the public wants their money to have a positive impact on society and the environment.[76]

For commercial real estate, this trend represents an opportunity to access finance as well as a risk. Two-thirds of institutional commercial real estate investors and property professionals have seen both the capital and rental values of their UK portfolios decrease due to poor ESG ratings, and over three-quarters fear this decrease might reach 20% if their ESG performance does not improve.[77] Addressing ESG factors in the commercial real estate sector is particularly challenging, as the environmental performance of assets is largely dependent on tenant operations over which landlords have limited control. Moreover, the long-term approach needed to pursue ESG objectives is difficult to maintain in an environment where lease terms are decreasing. New lease models are needed to ensure buildings are operated efficiently and can maintain high ESG ratings.

As there is no universally adopted set of metrics to measure the ESG performance of real estate assets, investors and owners face a plethora of different reporting frameworks, which creates confusion and the risk of 'greenwashing'. Most commercial real estate stakeholders and owners rely on green building certification schemes to measure asset performance but these are not easily translated into ESG metrics, and the lack of transparency of some schemes adds to the issue of greenwashing.[78] However, international efforts to harmonise reporting practices are on their way, and the UK government has committed to mandate disclosures aligned with the framework set out by the Task Force for Climate-Related Financial Disclosures (TCFD). The UK government also intends to create a taxonomy (in a similar fashion to the one developed by the EU) through which sustainable economic activities can be evaluated on the basis of clear quantitative criteria. However, these are only partial solutions and it remains to be seen how they will apply to the commercial real estate sector. In particular, TCFD disclosures do not cover social factors, and not all are detailed enough to provide clear quantitative metrics. Meanwhile, the criteria used in the EU taxonomy to measure the environmental sustainability of real estate activities are imperfect, and demonstrate the inherent difficulty of condensing the complexity of building performance and environmental impact into a set of measurable and verifiable metrics.

75 UNCTAD 2021. World Investment Report. Available at: https://unctad.org/system/files/official-document/wir2021_en.pdf

76 DFID and PWC 2019. Investing in a Better World: Understanding the UK public's demand for opportunities to invest in the Sustainable Development Goals. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/834207/Investing-in-a-better-wold-full-report.pdf

77 Deepki 2021. A sustainable future for commercial real estate. Available at: https://content.deepki.com/en/deepki_white_paper_research_report

78 PwC and the Urban Land Institute. Emerging Trends in Real Estate Europe 2022. London: PwC and the Urban Land Institute, 2021. Available at: https://www.pwc.com/gx/en/asset-management/emerging-trends-real-estate/assets/emerging-trends-in-real-estate-europe-2022.pdf

# 3 Solutions

Section 1 described the value and impact of the commercial real estate sector in the UK, while section 2 outlined the numerous challenges that the sector is currently facing. This final section recommends a range of measures to address these challenges, comprising:

- policy interventions that should be adopted by the government, and
- actions that should be taken by firms and professionals in the sector.

## 3.1 Policy measures

To address the uncertainty created by structural challenges and the pandemic, the disparities in opportunities and development across UK regions, and the urgency of mitigating climate change, it is essential that the UK government and those of the devolved nations focus on long-term policies that combine sustainable economic recovery, levelling up regional differences and driving stock decarbonisation.

In the context of commercial real estate, the government should consult and coordinate with representatives of the sector and civil society to create policy measures that are just, feasible and effective, avoiding unbalanced trade-offs between different objectives. This means creating opportunities for economic and social development out of the need to level up urban centres, upgrade assets and decarbonise building construction and operations. Taking a whole-life approach to the reduction of carbon emissions, 'transition' activities that reuse and improve existing assets should be favoured over new developments. Of course, measures must be evaluated in the context of local needs, which might justify demolition and new construction to address a specific demand.

In terms of specific measures, several interventions should be taken by the government to support businesses in the delivery of a sustainable commercial real estate sector:

- Ensure long-term economic sustainability of regions, focusing on driving economic development and attracting investment:
  - Establish a framework that supports regional strategies to attract inward foreign investment for economic regeneration in regions, focusing on patient investors willing to finance long-term development with social value creation. Regional strategies should understand and respond to customer needs for both commercial and residential assets, and prepare the ground with investment in physical and digital infrastructure such as public transportation and broadband.
  - Reform business rates to introduce proportionality/connection to ESG performance. We call on the government to extend the improvement relief for eligible works being introduced from April 2023 beyond the proposed 12 months, in order to support occupiers who are investing in their business premises and to actively incentivise all sustainability improvements in business premises, in addition to rates exemptions for renewable plant and machinery used in onsite renewable energy generation and storage available from 2022 to 2035. Given the importance of retrofitting commercial real estate assets to meeting national net zero emissions targets, we recommend a sufficiently long period of business rate relief.

- Measurement and reporting of social and environmental impacts should be regulated and made an integral part of business-as-usual. In particular:
  - Social value assessments should be harmonised to provide clarity and comparability. Selecting a fixed set of quantitative metrics appropriate for all projects is not possible nor recommended. Instead, existing guidance[79] should be adopted and developed further into a range of metrics and indicators (both quantitative and qualitative) based on established methodologies, and illustrating their relevance in the context of different projects.
  - Carbon embodied in new projects and renovations should be progressively regulated:
    - Embodied carbon assessment should be mandated for all new developments as well as major renovations. Measurement of embodied carbon in buildings is already standardised through BS EN 15978:2011 and RICS guidance,[80] although some methodological details remain to be defined. What is missing is a clear requirement to assess and report on embodied carbon at specific project stages. Some local authorities have already started, but this should be regulated at a national level.
    - Mandating embodied carbon assessment is not an end in itself, but a necessary step to allow the introduction of limits on embodied carbon in construction projects. Parts of the sector already strongly support this measure, as demonstrated by the industry-led initiative for the proposed Part Z amendment to the Building Regulations 2010.[81] The government should review this proposal together with the body of research on embodied carbon regulation, and establish maximum thresholds for embodied carbon in different building types, to be progressively tightened over time. This measure is an integral part of the roadmap to net-zero whole-life carbon produced by the cross-industry initiative led by the UK Green Building Council.[82]
  - Although the measurement and containment of operational emissions in buildings is already standardised and mandated (Building Regulations Part L), there is clear evidence that the main policy instrument in this field (the EPC) is inadequate to support decarbonisation efforts, especially in the context of addressing metered operational emissions (as opposed to predicted emissions). Therefore, the sector and government should work in collaboration to:
    - review and improve the EPC methodology to improve transparency and accuracy, and allow easier comparison of buildings
    - establish suitable EPC-based targets (for building design, renovation, sales and letting) that are clearly aligned with decarbonisation targets, and
    - accelerate the creation of a rating based on metered energy and emissions (by either upgrading the existing Display Energy Certificate scheme or adopting the NABERS UK framework) to regulate and incentivise the reduction of operational emissions through efficient building operations.

79 For example: UK GBC 2020. Delivering Social Value: Measurement. Available at: https://ukgbc.s3.eu-west-2.amazonaws.com/wp-content/uploads/2020/04/05145348/Delivering-Social-Value-Measurement.pdf and SROI Network 2012. A guide to Social Return on Investment. Available at: https://socialvalueuk.org/wp-content/uploads/2016/03/The%20Guide%20to%20Social%20Return%20on%20Investment%202015.pdf

80 RICS 2017. Whole life carbon assessment for the built environment - 1st edition, November, 2017. RICS Professional Statement. Available at: https://www.rics.org/globalassets/rics-website/media/news/whole-life-carbon-assessment-for-the--built-environment-november-2017.pdf

81 Part Z: https://part-z.uk/

82 UK GBC 2021. Net Zero Whole Life Carbon Roadmap - Summary for Policy-Makers. Available at: https://www.ukgbc.org/wp-content/uploads/2021/11/UKGBC-Whole-Life-Carbon-Roadmap-Summary-for-Policy-Makers.pdf

- Both public and private finance streams should be leveraged to support the renovation of carbon-intensive commercial properties, focusing on buildings located in secondary and tertiary locations where the risk of stranding assets is greater and owners are unable to recover the cost of improvements due to low rental values. These streams would contribute to the regeneration of urban centres and the creation of job opportunities.
- To enable the delivery of building renovation measures on a large scale, the government should work with the sector to upskill the construction workforce in new technologies and carbon awareness, transforming the need for skilled workers into an opportunity to support local jobs and businesses.

## 3.2 Sector actions

All actors in the commercial real estate sectors (investors, landlords, tenants and professionals) have a role to play in addressing the challenges outlined in this report. The sector should come together to recognise its value to society, as well as take responsibility for its impact. The evolution of customer demand must be acknowledged and addressed appropriately to deliver a commercial property stock that can attract investment and is fit for the future. Synergies within the sector and with other industry sectors should be pursued, in order to work together towards common objectives. This is particularly relevant in the context of levelling up, where commercial real estate is certainly not the only sector that would benefit from regional economic regeneration. It is also becoming clear that a balanced combination of commercial and residential spaces in new developments is essential not only to deliver social value, but to ensure the viability of those commercial spaces through their proximity to residential buildings. Developers and investors need to accept the risk and complexity associated with mixed-use developments.

To take full advantage of the opportunities offered by the rise of sustainable finance and impact investing, the sector should take a proactive attitude towards ESG measurement and reporting. This means making an effort to understand and measure the metrics that are particularly relevant to commercial real estate as a distinct asset class. It also means that the negative impacts of the sector (both in environmental and social terms) must be acknowledged rather than hidden, which is the first step towards improving them. Well-founded instruments are available to support the sector in this journey, notably the Value Toolkit[83] developed by a coalition led by the Construction Innovation Hub, and the RICS Responsible Business Framework.[84]

Without waiting for government intervention, the sector should make carbon assessment and management an integral part of business practice. Carbon emissions across the whole life cycle of assets should be measured as consistently and accurately as possible, just as is done with cost, and the two metrics should be analysed in conjunction to understand trade-offs. Valuable instruments for this purpose are the International Cost Management Standard (ICMS3),[85] which combines cost reporting with carbon reporting, and the decarbonisation pathways provided by the CRREM project.[86] Embodied carbon assessment and benchmarking is technically challenging, and data quality and access continues to be an issue in this field. For this reason, RICS has published detailed guidance

83 Available at: https://constructioninnovationhub.org.uk/value-toolkit/

84 RICS 2021. Responsible business: a framework for real estate management, 1st edition, December 2021. Available at: https://www.rics.org/globalassets/rics-website/media/upholding-professional-standards/sector-standards/real-estate/responsible-business-framework/responsible-business_final2.pdf

85 ICMS Coalition 2021. ICMS: Global Consistency in Presenting Construction Life Cycle Costs and Carbon Emissions, 3rd edition, November 2021. Available at: https://icmscblog.files.wordpress.com/2021/11/icms_3rd_edition_final.pdf

86 Available at: https://www.crrem.eu/

through its professional statement on whole-life carbon assessment[87] (planned to be updated in 2022) and has brought together a coalition of industry bodies and professional associations to develop a publicly-accessible repository of carbon data projects and products, the Built Environment Carbon Database (BECD).[88]

Besides tackling embodied carbon, the commercial real estate sector has much to do to address its other main source of carbon emissions: the daily operations of buildings. Asset and facility managers are in the best position to take measures to close the performance gap and deliver real carbon savings. The RICS International Building Operation Standard (IBOS)[89] provides these professionals with the framework needed to understand and manage the complex variables at play. The other key action to improve operations is investment in digital technologies for building monitoring and control. Besides improving business services and efficiency, such technologies enable the efficient management of energy demand (and related carbon emissions), as well as the reduction of operational costs. To get support for their digitalisation journey, firms can join the RICS Tech Partner Programme,[90] a global platform that brings together real estate businesses and technology developers.

87 RICS 2017. Whole life carbon assessment for the built environment, 1st edition, November 2017. RICS Professional Statement. Available at: https://www.rics.org/globalassets/rics-website/media/news/whole-life-carbon-assessment-for-the--built-environment-november-2017.pdf

88 Please visit: https://www.becd.co.uk/

89 RICS 2022. IBOS: International Building Operation Standard, 1st edition, February 2022. Available at: https://www.rics.org/globalassets/rics-website/media/upholding-professional-standards/sector-standards/real-estate/ibos/ibos---international-building-operation-standard_1st-edition.pdf

90 More information at: https://www.rics.org/uk/surveying-profession/global-professional-network/rics-tech-partner-programme/

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