Housing and Economic Needs Assessment

Cherwell District and Oxford City Councils

FINAL REPORT

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1 Introduction and Purpose

1.1.1 This study was commissioned by Cherwell District Council and Oxford City Council to prepare a Housing and Economic Needs Assessment (HENA) to inform their individual Local Plans. This follows work originally intended to inform the Oxfordshire Plan, which is no longer being prepared, although the Oxfordshire Growth Needs Assessment (OGNA), was published in 2021.

1.1.2 This HENA is intended to provide an integrated evidence base to help identify the appropriate level and distributions of housing and employment over the period to 2040. The core objectives of the Study are to:

- Refresh the methodology and the growth scenarios in the original OGNA to update Oxfordshire's housing needs over the 20-year Local Plan period of 2020 to 2040
- To provide a detailed, up to date commentary (including the baseline position) on Oxfordshire's housing and employment market, including demographic and economic dynamics and any other key drivers of housing need and how this may change in the period to 2040.
- To identify a range of credible and robust housing need scenarios for Oxfordshire.
- To establish an informed understanding of affordable and specialist housing needs in Oxfordshire.
- To provide an updated assessment of employment land needs.
- To advise on how Local Plans should respond to the uncertainty associated with long-term planning for strategic housing and employment provision.

1.2 Context and nature of the Assessment

1.2.1 The Oxfordshire Plan was to be a joint statutory spatial plan which covers a 30-year plan period from 2020 to 2050. As the individual Local Plans for Cherwell and Oxford City cover a 20-year plan period, the HENA largely considers this period between 2020 and 2040.

1.3 This report

1.3.1 The principal objectives of this housing and economic needs assessment report (HENA) are to:

- Update housing and economic baselines and provide updated demographic and policy reviews.
- Update, and remodel economic scenarios from the original report, including accounting for new economic baselines and post pandemic working from home patterns.

- Bring together the evidence to draw conclusions on the appropriate housing need in Cherwell and Oxford City.
- Update affordable housing needs including the consideration of the need for different types of affordable housing including First Homes.
- Update employment land needs and draw strategic conclusions on the need for employment land in Cherwell and Oxford City.

1.3.2 The HENA is a single report providing overall growth need figures for housing and employment. It profiles local housing market, demographic, economic and commercial property market dynamics, all within the strategic policy environment. These factors are then brought together to provide trajectories for future housing and employment land needs, and resultant high-level implications for commuting and affordability.

1.4 Report structure

1.4.1 The remainder of this report is structured as follows into 3 main sections.

Part A: and Markets Review

- Oxfordshire's current strategic policy environment
- Demographic trends and review
- Housing market review
- Commercial market review and assessment of employment land requirements

Part B: Reviewing and Refreshing Oxfordshire's Growth Scenarios

- Reassessing the original Growth scenario specifications
- Updating the scenario specifications for 2022
- Consideration of commuting and homeworking
- Housing market impacts
- Distribution of housing need in the districts
- Conclusions on overall housing need

Part C: Affordable and Specialist Housing Need, Mix and Tenure

- Need for social and affordable housing
- Newly forming households
- Net need for social and affordable housing
- Establishing the need for affordable home ownership
- The cost of affordable home ownership
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PART A: Policy, Demographics, Housing and Commerical Markets Review

2 Strategic Policy Review

2.1 Introduction

2.1.1 This chapter addresses some of the strategic policy influences on planning for housing and economic development needs.

2.1.2 Government has set out national planning policies in the National Planning Policy Framework (NPPF). The latest version of the NPPF was published in July 2021 and is relevant to the preparation of local plans as one of the 'soundness' tests, against which the Plan in due course, will be assessed is one of the consistency with policies in the Framework.[1]

2.1.3 The NPPF is clear that the purpose of the planning system is to contribute to the achievement of sustainable development (Para 7) within which there are economic, social and environmental components. It sets out a presumption in favour of sustainable development which, for plan making, means that plans should promote a sustainable pattern of development that seeks to: meet the development needs of their areas; align growth and infrastructure; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects. It outlines that strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as needs that cannot be met within neighbouring areas, unless the application of policies that protect areas or assets of particular importance provide a strong reason for restricting the scale, type or distribution of development[2]; or the adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole (Para 11).

2.1.4 The NPPF is clear that the planning system is intended to be 'plan-led' with plans providing the basis for the determination of planning applications. It expects plans to set out strategic policies which articulate the overall strategy for the pattern, scale and quality of development, and make sufficient provision for housing, employment and other forms of commercial development, infrastructure, community facilities and the enhancement of the natural, built and historic environment.

2.1.5 This HENA report seeks to consider the need for housing and employment development. In developing local plans, the Councils will draw this together with consideration of wider sustainability issues including the need to conserve and enhance the natural, built and historic environment, and ensure that new development is supported by necessary infrastructure.

[1] NPPF Paragraph 35.

[2] Areas or assets of particular importance within this context in Oxfordshire include the Cotswolds Area of Outstanding Natural Beauty, the Chilterns Area of Outstanding Natural Beauty, the North Wessex Downs Area of Outstanding Natural Beauty, SSSI, SACs, local green space, Green Belt, areas at risk of flooding, irreplaceable habitats and designated heritage assets including Oxfordshire's only World Heritage Site at Blenheim Palace.

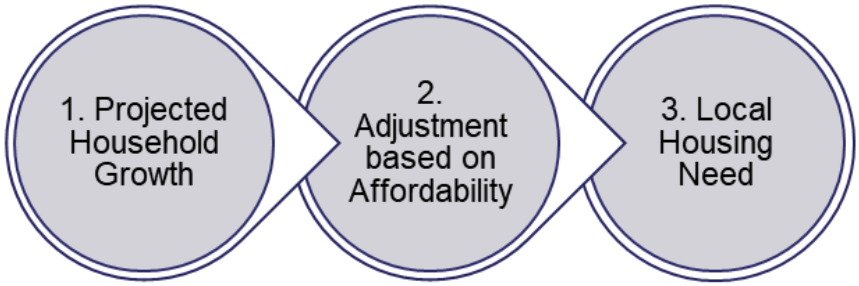
Assessing Housing Needs

2.1.6 The 2021 NPPF sets out that to determine the minimum number of homes needed, strategic policies should be informed by a local housing needs assessment, conducted using the 'Standard Method' in national planning guidance – unless exceptional circumstances justify an alternative approach which also reflects current and future demographic trends and market signals (Para 60).

2.1.7 The 'Standard Method' was introduced by Government in 2018 and uses a formulaic approach to calculate a minimum level of housing need. Government's Planning Practice Guidance sets out that housing need is an unconstrained assessment of the number of homes needed in an area, and is the first step in the process of deciding how many homes to be planned for. It should be assessed separately from assessing land availability, establishing a housing requirement figure (i.e. how many homes to plan for) and preparing policies to address this.[3] In this context, this report considers unconstrained 'housing need' – it does not set a housing target, but is an important input to doing so.

2.1.8 The Standard Method uses Government's 2014-based Household Projections to calculate the average annual household growth over the next 10 years, then applies a percentage uplift to this based on the extent to which an area's median house price-to-earnings ratio is above 4 to calculate a minimum annual housing need figure. A cap is applied to the affordability uplift in generating the minimum figure in some circumstances to ensure the figures derived are deliverable. For some cities and larger urban centres, a further uplift is now applied – but this does not affect authorities in Oxfordshire. The methodology is considered in greater detail in *Chapter 7*.

Figure 2:1: Overview of the Standard Method for calculating local housing need



2.1.9 The Standard Method provides what the guidance states should be a minimum starting point for calculating housing need. However, paragraph 60 in the NPPF and the associated Planning Practice Guidance[4] indicate that use of the Standard Method is not mandatory. Exceptional circumstances must be demonstrated to justify a housing need figure *lower* than that identified using the Standard Method, and such figures must be based on realistic assumptions on demographic growth and market

[3] Planning Practice Guidance Para ID: 2a-001-20190220

[4] Planning Practice Guidance Para ID 2a-015-20190220

signals. The Planning Practice Guidance outlines that more recent household projections (such as the 2016- and 2018-based projections) do not provide an appropriate basis for use in the Standard Method.[5]

2.1.10 In contrast, the guidance notes that where planning authorities can show an alternative approach, identifying a need *higher* than indicated by the Standard Method, this can be considered sound if it adequately reflects current and future demographic trends and market signals.

2.1.11 Specifically, Planning Practice Guidance in Para 2a-010[6] sets out that there will be circumstances when it is appropriate to consider if housing need is higher than the Standard Method indicates, stating that:

> *"The government is committed to ensuring that more homes are built and supports ambitious authorities who want to plan for growth. The Standard Method for assessing local housing need provides a minimum starting point in determining the number of homes needed in an area. It does not attempt to predict the impact that future government policies, changing economic circumstances or other factors might have on demographic behaviour. Therefore, there will be circumstances where it is appropriate to consider whether actual housing need is higher than the Standard Method indicates.*
>
> *This will need to be assessed prior to, and separate from, considering how much of the overall need can be accommodated (and then translated into a housing requirement figure for the strategic policies in the plan). Circumstances where this may be appropriate include, but are not limited to situations where increases in housing need are likely to exceed past trends because of:*
>
> - *growth strategies for the area that are likely to be deliverable, for example where funding is in place to promote and facilitate additional growth (e.g. Housing Deals);*
> - *strategic infrastructure improvements that are likely to drive an increase in the homes needed locally; or*
> - *an authority agreeing to take on unmet need from neighbouring authorities, as set out in a statement of common ground.*
>
> *There may, occasionally, also be situations where previous levels of housing delivery in an area, or previous assessments of need (such as a recently produced Strategic Housing Market Assessment) are significantly greater than the outcome from the Standard Method. Authorities will need to take this into account when considering whether it is appropriate to plan for a higher level of need than the Standard Method suggests."*

2.1.12 Housing provision in the current round of local plans in Oxfordshire is based on evidence showing that Oxfordshire's economic dynamism and its economic growth performance are particular drivers of housing need. Recent Local Plans in Oxfordshire, including those in Oxford City and South Oxfordshire, which have

[5] Planning Practice Guidance Para ID 2a-015-20190220

[6] Planning Practice Guidance, Para ID: 2a-010-20190220

assessed housing need as being above the Standard Method have been found to be sound at independent examination.

2.1.13 The inter-relationship between economic growth potential and housing need are recognised in the PPG through reference to changing economic circumstances; whilst equally the NPPF emphasises in Para 82 that plans should set a clear economic vision and strategy which positively and proactively encourages sustainable economic growth. This HENA explores the inter-relationships between housing need and economic performance.

2.2 Assessing economic development needs

2.2.1 The NPPF is clear that planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt; and that significant weight should be placed on the need to support economic growth and productivity, taking into account local business needs and wider opportunities for development (Para 80). It is clear that this is particularly important where Britain can be a global leader in driving innovation and in areas with high levels of productivity, which would include Oxford and other parts of Oxfordshire.

2.2.2 Planning policies are expected to set out an economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies; which identifies strategic sites for local and inward investment; addresses barriers to investment and is sufficiently flexible to accommodate needs not anticipated in the plan (Para 81).

2.2.3 Planning Practice Guidance outlines that assessments of employment land needs may need to be undertaken on a cross-boundary basis where functional economic market areas cross administrative boundaries, as the OGNA showed is the case in Oxfordshire. This report however should be considered alongside local employment land reviews which further consider local circumstances and employment land supply.

2.3 Oxfordshire Local Industrial Strategy (LIS) and Local Investment Plan (LIP)

2.3.1 The Oxfordshire Local Industrial Strategy (LIS) was agreed with Government and published in September 2019, responding to the UK Industrial Strategy. The NPPF states in Para 81 that plan-making should have regard to local industrial strategies in setting out an economic vision and strategy for the area.

2.3.2 The LIS builds upon the significant business investment over recent years through the Oxfordshire Local Enterprise Partnership. Over £600m worth of government and European funds have been secured through Growth Deals, a City Deal, European Structural Investment Funds and Infrastructure Funds – all part of an overall investment programme in Oxfordshire worth £2.2bn.

2.3.3 The LIS sets out an ambitious economic strategy up to 2040 with the aim of positioning Oxfordshire as one of the top three innovation ecosystems in the world and as a leading science and technology cluster. The important economic sectors, assets and growth opportunities identified in the strategy are spread across the whole of Oxfordshire with the main towns forming important parts of the economy. These

include motorsport technologies around Banbury, Bicester and Grove; life sciences and creative industries around Milton Park and Didcot; and smart living technologies at the Oxfordshire Cotswolds Garden Village.

2.3.4 The Oxfordshire LIS presents a long-term framework against which private and public sector investment decisions can be assessed, grouped around the five foundations of productivity:

- Places - Develop Oxfordshire as a living laboratory to help solve the UK's grand challenges
- Business environment - Become a powerhouse for commercialising transformative technologies
- Infrastructure - Enable greater connectivity and accessibility especially across key growth locations
- Ideas - Establish a globally connected innovation economy
- People - Develop a more responsive skill system creating better opportunities for all

2.3.5 The Oxfordshire LIS will also partly inform future local authority-level industrial strategies to facilitate a supportive business environment, help encourage enterprise and continued economic prosperity.

2.3.6 Since the publication of the LIS and the 2021 OGNA, the Local Enterprise Partnership has produced a Local Investment Plan that identifies a range of investments in key sectors in Oxfordshire. These investments are quantified in terms of likely employment and GVA impacts. This has been taken into account in this report and provides a useful basis for an investment led growth plan.

2.4 Conclusions

2.4.1 There are important national and sub-regional policy influences which are relevant in considering housing and economic development needs in Oxfordshire.

2.4.2 National policy sets out that the Standard Method set out in Planning Practice Guidance is the starting point for considering housing needs.

2.4.3 Wider influences on considering the need for housing and employment land include Oxfordshire's economic dynamics and growth potential and the Local Industrial Strategy that has been agreed with Government.

3 Demographic Review

3.1 Reviewing Population Trends

3.1.1 The analysis in this chapter looks at key demographic trend data in Oxfordshire, particularly focussing on past population growth and the components of population change. This is used to consider the appropriateness of previous ONS demographic projections for Oxfordshire, including the 2014-based population and household projections which inform the standard method.

3.1.2 Initial 2021 Census data was published in June 2022 which provides an update of the current population size and age structure in different areas. However, when developing population projections, ONS uses its mid-year population estimates (MYE) - the latest running to 2020.

Population

3.1.3 Table 3.1 below shows ONS estimates for the population by authority in 2020. The population of Oxfordshire was estimated to be around 697,000 with a fairly even split across different administrative areas.

Table 3.1 Estimated Population by Local Authority (2020) – Oxfordshire

	Estimated population	% of population
Cherwell	151,846	21.8%
Oxford	151,584	21.8%
South Oxon	143,782	20.6%
VoWH	137,910	19.8%
West Oxon	111,758	16.0%
Oxfordshire	696,880	100.0%

Source: ONS MYE

3.1.4 The data above can be contrasted with more recent information from the 2021 Census in Table 3.2. The ONS released initial 2021 Census data on the size and structure of the population in June 2022. The Census shows a higher population in the County than previously estimated with the biggest differences being seen in Cherwell and Oxford.

Table 3.2 Estimated Population by Local Authority (2021) – Oxfordshire

	Estimated population	% of population
Cherwell	161,000	22.2%
Oxford	162,100	22.3%
South Oxon	149,100	20.6%
VoWH	138,900	19.2%
West Oxon	114,200	15.7%
Oxfordshire	725,300	100.0%

Source: 2021 Census

3.1.5 Table 3.3 shows estimated population change between the 2011 and 2021 Census. Oxfordshire's population is shown to have increased by around 11%, with higher changes seen in Vale of White Horse and to a lesser extent Cherwell. Oxford City saw the lowest population growth, at less than 7%.

Table 3.3 Change in Population by Local Authority (2011-21)

	2011	2021	Change	% Change
Cherwell	141,900	161,000	19,100	13.5%
Oxford	151,900	162,100	10,200	6.7%
South Oxon	134,300	149,100	14,800	11.0%
VoWH	121,000	138,900	17,900	14.8%
West Oxon	104,800	114,200	9,400	9.0%
Oxfordshire	653,800	725,300	71,500	10.9%

Source: 2011 and 2021 Census

Estimated Population Size and Structure in 2021

3.1.6 Table 3.4 shows a comparison between the 2018-based subnational population projections (SNPP), the latest official projections prepared by ONS, and the 2021 Census. Data has been taken from the SNPP as this allows an ONS figure for 2021 to be included – it should be noted that the SNPP figure will be based on ONS estimates of trends up to mid-2018.

3.1.7 The Census shows stronger population growth and a higher population in 2021 than previous ONS projections across all Oxfordshire authorities, but particularly in Cherwell, Oxford and South Oxfordshire. This illustrates the extent to which ONS' previous estimates/projections have been inaccurate, but this does need to be understood alongside the relative population growth in different areas shown in Table 3.3.

Table 3.4 Comparing Population estimates and projections for 2021 – Oxfordshire

	SNPP (2021)	Census (2021)	Census difference from SNPP
Cherwell	151,700	161,000	9,300
Oxford	152,900	162,100	9,200
South Oxon	142,500	149,100	6,600
VoWH	138,800	138,900	100
West Oxon	110,700	114,200	3,500
Oxfordshire	696,500	725,300	28,800

Source: ONS

3.1.8 Table 3.5 shows a comparison between these sources of age structure estimates in 2021. There are notable differences in the population across a range of age groups, particularly those aged between 25-39.

Table 3.5 Comparing age structure population estimates and projections for 2021 – Oxfordshire

	SNPP (2021)	Census (2021)	Census difference from SNPP
0-4	37,100	38,000	900
5-9	41,900	41,000	-900
10-14	43,400	43,000	-400
15-19	41,800	45,000	3,200
20-24	48,500	47,900	-600
25-29	44,400	49,400	5,000
30-34	41,900	51,400	9,500
35-39	44,500	49,000	4,500
40-44	43,200	46,400	3,200
45-49	43,300	46,300	3,000
50-54	47,200	49,700	2,500
55-59	47,100	48,300	1,200
60-64	39,600	40,000	400
65-69	33,200	33,600	400
70-74	34,500	34,000	-500
75-79	26,800	25,800	-1,000
80-84	18,600	18,100	-500
85+	19,400	18,300	-1,100
TOTAL	696500	725,300	28,800

Source: ONS

3.1.9 It is however ONS 2014-based demographic projections which are used in the standard method and it is therefore also relevant to consider how the Census 2021 data contrasts to the population predicted in the ONS 2014-based SNPP.

3.1.10 Across Oxfordshire the data shows the Census population at a higher level than was projected in the 2014-SNHP, and for a number of areas (Cherwell, South Oxfordshire and Vale of White Horse) the differences are fairly sizable. In Oxford the Census shows a lower population than was predicted in the 2014-based SNPP, whereas West Oxfordshire is the only location where the difference between the sources is modest (virtually no difference).

3.1.11 This data does suggest the 2014-SNPP no longer reflects a reasonable view about demographic trends and an alternative projection based on demographic trends could be developed. Arguably, West Oxfordshire is an exception to this, however given the inter-connectedness of the authorities it is considered reasonable for any analysis to be undertaken in a consistent manner.

Table 3.6 Estimated Population by Local Authority (2021) – 2014-based projections and 2021 Census

	2014-based SNPP	2021 Census	Difference
Cherwell	151,700	161,000	9,300
Oxford	166,400	162,100	-4,300
South Oxon	142,000	149,100	7,100
VoWH	132,200	138,900	6,700
West Oxon	114,300	114,200	-100
Oxfordshire	706,600	725,300	18,700

Source: ONS

3.1.12 When looking at households, the two sources show fairly similar estimates for 2021 and arguably this would point to the 2014-SNHP as still having a degree of validity. However, given the large differences in population it is clear the data points to there having been some fundamental changes in household formation rates. In addition, for individual authorities there are some notable differences between figures from the two sources – in particular, the Census puts the number of households in Oxford at nearly 7,000 fewer than had been projected in the 2014-SNHP. Overall, this again suggests that the 2014-SNHP may not be the best source to use when looking at housing need based on demographic trends.

Table 3.7 Estimated Households by Local Authority (2021) – 2014-based projections and 2021 Census

	2014-based SNHP	2021 Census	Difference
Cherwell	62,700	65,900	3,200
Oxford	62,100	55,200	-6,900
South Oxon	58,700	61,500	2,800
VoWH	55,200	57,500	2,300
West Oxon	47,900	48,000	100
Oxfordshire	286,500	288,100	1,600

Source: ONS

3.2 Students in the 2021 Census

3.2.1 One age group where the population was smaller than projected is the 20-24 age group which is one in which a high proportion of students would be expected to be found. We have sought to consider the possibility that some students who would normally be recorded as living in those local authorities were excluded from the Census. The timing of the Census was also a relevant factor with data having been collected during the pandemic – Census day (21st March 2021) was during a phased exit from lockdown.

3.2.2 The specific concern is that students who would normally be recorded as resident at their place of study were only recorded at their place of residence at the time (often back at family home) and this has had an impact on the Census estimates.

3.2.3 It can be seen that the number of people aged 20-24 was lower in the Census than previous ONS estimates (see table 3.6) which could point to some students

having been missed out. It should however also be noted that the 20-24 age group does still show a spike in population (it is the largest 5-year age group), reflecting the inclusion of students.

3.2.4 Overall, it is difficult to be certain if and the extent to which students may have been missed by the Census from the information available at the current time. For the purposes of analysis in this report, it has therefore been assumed that the Census is as accurate as it reasonably can be – and taken forward as a base position for analysis of current and future demographic trends.

Table 3.8 Comparing population estimates and projections for 2021 – Oxford

	SNPP (2021)	Census (2021)	Census difference from SNPP
0-4	7,600	7,100	-500
5-9	8,600	7,800	-800
10-14	8,900	8,600	-300
15-19	12,700	15,900	3,200
20-24	26,000	22,000	-4,000
25-29	15,100	15,400	300
30-34	9,000	13,300	4,300
35-39	8,800	11,000	2,200
40-44	8,100	9,600	1,500
45-49	7,100	8,800	1,700
50-54	7,600	8,800	1,200
55-59	7,600	8,200	600
60-64	6,300	6,400	100
65-69	5,200	5,200	0
70-74	5,000	4,900	-100
75-79	3,700	3,600	-100
80-84	2,600	2,600	0
85+	3,000	2,800	-200
TOTAL	152,900	162,100	9,200

Source: ONS

3.2.5 The evidence indicates that there have been some notable changes in demographic trends for most of the County since the 2014-based projections were released and it is therefore reasonable to look at a revised projection which takes account of recent trends.

3.3 Developing a Trend-based Population Projection in Oxfordshire

3.3.1 This section next moves on to develop trend-based population projections for the five local authorities in Oxfordshire. A key driver of this is due to publication of new (2021) Census data which has essentially reset estimates of population (size and age structure) compared with previous mid-year population estimates (MYE) from ONS.

Overview of Methodology

3.3.2 The start point of the projection was the population age and sex structure in 2021, based on Census data – this was slightly adjusted to take account of the fact that the Census was carried out in March, while demographic data typically looks at mid-year estimates.

3.3.3 For births (fertility) the analysis drew on birth data up to 2020 and used this to estimate a fertility rate in each local authority. This was projected forward on the basis of projected changes within the most recent (2018-based) SNPP. It was considered important to provide an up-to-date estimate of births as (at a national level and locally) it is evident that fertility rates have been dropping and are currently some way below where they were projected to be in the 2014-SNPP.

3.3.4 For deaths (mortality) a similar approach was taken (using data on actual deaths up to 2020). As with the birth data it was considered important to look at up-to-date death rates as mortality has generally been higher in the recent past than was projected by the 2014-SNPP (i.e. a greater number of deaths than had been projected). Combining birth and death data provides information on natural change, which was projected to be lower than previously projected.

3.3.5 For migration two main analyses were undertaken to initially establish a base trend-level of migration. Firstly, the projections looked at how ONS had recorded migration in the past 5-years for which data is available (2015-20). The use of a 5-year period is consistent with projections typically developed by ONS (although in more recent releases they have also looked at different time periods, e.g. 10-year trend). A five-year period is however consistent with the trend period used in the 2014-SNPP.

3.3.6 The second part of the analysis sought to use the Census data to look at the extent to which migration over the decade to 2021 might have been higher or lower than previously estimated. For example, if the Census showed a population of 50,000 people but previous estimates were only at 49,000, then the modelling assumes that 1,000 net migrants have been missed from population estimates – this would be 100 per annum which is used as an adjustment to the 5-year trend as recorded.

3.3.7 The two analyses of migration were used to estimate a base (starting point) for migration (taken to be the 2021/22 year). Moving forward the analysis modelled that migration might change as populations change. For example, as the population of an area increases there will be more people who could be out-migrants.

3.4 Detailed Modelling Assumptions

Fertility

3.4.1 For fertility it is the case that underestimating population will mean that fertility rates in the SNPP are too high (as ONS is essentially assuming a number of births to fewer people). To make an adjustment, the number of births for 2021/22 in the SNPP is used and then an estimate made of how many births the ONS rates would imply if the population age structure for 2021 is replaced as the base against which births are calculated.

3.4.2 There is however some more recent data about births from the 2020 MYE which can be used to compare recorded births over the 2018-20 period with that projected in the 2018-based SNPP.

3.4.3 The two adjustments are then multiplied to give a change to base fertility rates. This results in a downward adjustment to fertility rates, reflecting the general trend

(including up to 2020) for birth rates to be falling as well as adjustments made for Census population estimates.

Mortality

3.4.4 The same issue arises with mortality, in that deaths recorded by MYE are applied to a different population than is now shown. Generally, for mortality any adjustments are far more minor than for fertility, this is because most deaths occur in older age, and generally the MYE is fairly good at estimating the size of the older person population (in part due to them being less likely to be migrants).

3.4.5 A similar adjustment to fertility is made to take account of death data to 2020 again by comparing projected deaths in the 2018-based SNPP to actual data for the 2018-20 period. Again, the two adjustments are multiplied to give a change to base mortality rates.

3.4.6 Overall mortality is adjusted in an upward direction, as death rates have not been improving at the rate previously projected (as well as adjustments made for Census population estimates). So for instance deaths have been higher than was projected in the ONS 2014-based SNPP.

Migration

3.4.7 When looking at migration our starting point is to consider how different migration has been over the 2011-21 period than was previously estimated (and projected) by ONS. **Essentially the difference in population growth between the 2011 and 2021 Censuses is likely to be attributable to migration, as generally births and deaths are likely to have been accurately recorded by ONS.**

3.4.8 Analysis is slightly complicated by MYE data only being available to 2020 but the Census having a clear data point of 2021. The MYE to 2020 has initially been used and the incremental change in the SNPP for 2020-21 added on to get to a 2021 population estimate from the MYE/SNPP data series. This is then compared to the Census data.

3.4.9 Table 3.7 shows the same figures for all authorities in the County. This clearly shows in all areas that population figures shown by the Census are above previous estimates/projections (albeit to a lesser extent in VoWH). It should also be noted from the table that the two 2011 figures are slightly different: this is due to one being a mid-year figure and the other dated as of the Census (which was March). The main difference is seen in Oxford, which looks to be due to ONS removing some people of student-age between the two dates (presumably as students start to return home). To provide a mid-year figure for 2021 based on the Census an adjustment to relate the March 2021 Census position to mid-2021 position has been made based on adjustments seen in 2011.

Table 3.9 MYE and Census population estimates – Oxfordshire authorities

		2011	2021	Change
Cherwell	MYE/SNPP	142,252	152,682	10,430
	Census	141,868	161,100	19,232
Oxford	MYE/SNPP	150,245	150,919	674
	Census	151,906	161,800	9,894
South Oxon	MYE/SNPP	134,961	144,431	9,470
	Census	134,257	149,300	15,043
VoWH	MYE/SNPP	121,891	139,489	17,598
	Census	120,988	138,900	17,912
West Oxon	MYE/SNPP	105,442	112,029	6,587
	Census	104,779	114,200	9,421
Oxfordshire	MYE/SNPP	654,791	699,549	44,758
	Census	653,798	725,300	71,502

Source: Derived from ONS data

3.4.10 It is not known if this difference in population growth (attributed to migration) is due to an under-estimate of in-migration or an over-estimate of out-migration and in reality it is likely to be a combination of the two. For the purposes of modelling it has been assumed that the difference is split equally between these two components.

3.4.11 The projections developed are modelled on 5 year migration trends. Information about migration estimates is shown in the table below with average figures provided for 2015-20 (latest 5-years), 2013-18 (the 5-year period prior to the last published SNPP) and 2009-14 (the 5-year period relevant to 2014-based projections, as used in the Standard Method. These figures shown are all as published by ONS (i.e. excluding any adjustments to take account of differences between the MYE and Census).

3.4.12 The analysis shows net migration to be generally increasing, from an average of around 2,000 people per annum in the 5-years to 2014, up to 2,400 for the 2013-18 period and then approaching 2,800 per annum over the last 5-years for which data is available.

Table 3.10 Past trends in net migration – Oxfordshire

	Oxfordshire
2009/10	2,512
2010/11	2,281
2011/12	616
2012/13	1,438
2013/14	3,318
2014/15	1,455
2015/16	2,057
2016/17	1,802
2017/18	3,529
2018/19	2,235
2019/20	4,135
Average (2009-14)	2,033
Average (2013-18)	2,432
Average (2015-20)	2,752

Source: ONS MYE

3.4.13 Based on recalibrating population trends to take account of the 2021 Census data, the starting point net migration is estimated to be around 5,400 people per annum across Oxfordshire – this is roughly double the migration recorded by ONS and is due to the Census showing a notably higher population in the County than had previously been estimated.

Table 3.11 Base estimate of migration – Oxfordshire

		In-migration	Out-migration	Net migration
Oxfordshire	Average (2015-20)	-	-	2,752
	Adjustment	-	-	2,674
	Base position	-	-	5,426

Source: Derived from ONS data

3.4.14 It is however not a simple process to just apply this for each year of the projection as migration can vary over time. In- and out-migration need to be considered separately.

In-migration

3.4.15 Levels of in-migration will to some extent vary depending on the size of the population from which migrants will be drawn. If, for example, typically 10% of people in Area A move to Area B in any given year then the size of the population in Area A will impact on the actual numbers moving. If in year 1 there are 10,000 people in Area A then 1,000 would be expected to move to Area B, but if in year 2 the population is only 9,000 there would only be 900 movers.

3.4.16 The age structure will also have an influence on the number of moves as typically older people are less likely to be migrant and so an ageing population might see in-migration reduce over time, although an increasing population generally might be expected to see migration increase.

3.4.17 For the purposes of the modelling we have considered the relationship between the national population and the projected number of in-migrants. The latest national projection is a 2020-based ONS publication.

3.4.18 Over time, population growth rates nationally are projected to fall (remaining positive but at a reducing rate) and this is in part (in early years) due to reducing levels of in-migration – although reductions in natural change have the greatest impact over the longer term. It is considered with an increasing population that levels of in-migration will increase over time but at a reducing rate. For the purposes of modelling it has been assumed that future in-migration will broadly track the midpoint between rates remaining in-line with national population change and the rates estimated for the 10-year period to 2020.

Out-migration

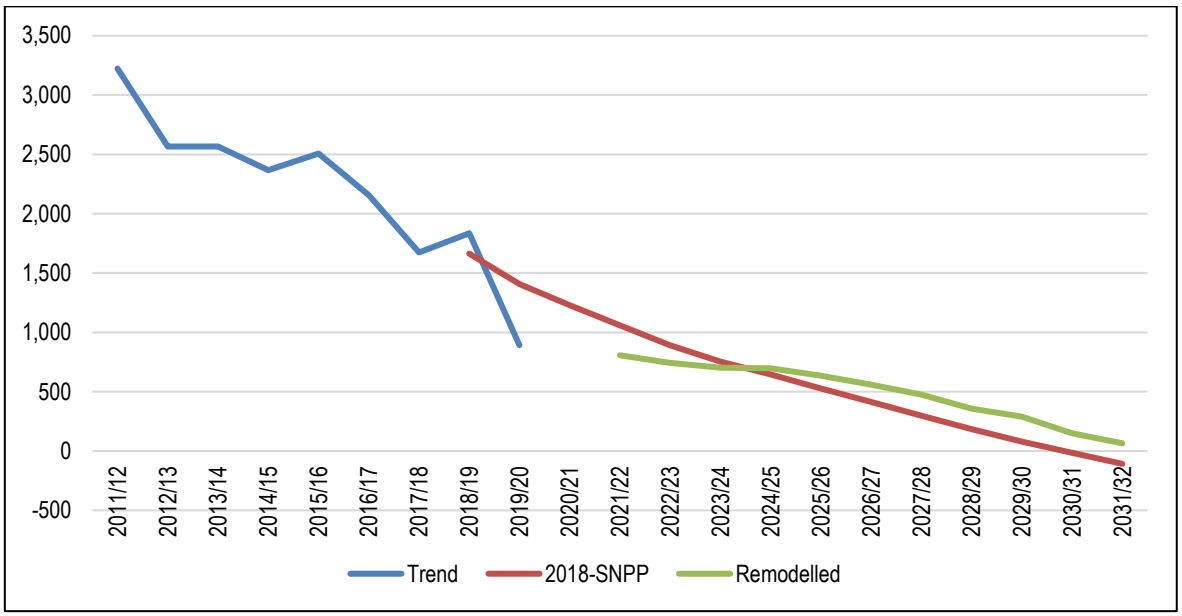
3.4.19 With a growing population, out-migration would typically be expected to increase over time. However, it is also noted that at a national level, out-migration in the early years of the projection is projected to fall, whilst a changing age structure (increasing older person population) will to some extent moderate any changes, as older people are less likely to be migrant.

3.4.20 Therefore, a consistent method to that used for in-migration has been applied for out-migration, that is the estimated level of out-migration is set at the midpoint between estimated past levels of out-migration and the level that would be expected if the ratio between population growth and out-migration were maintained.

3.5 Projection Outputs

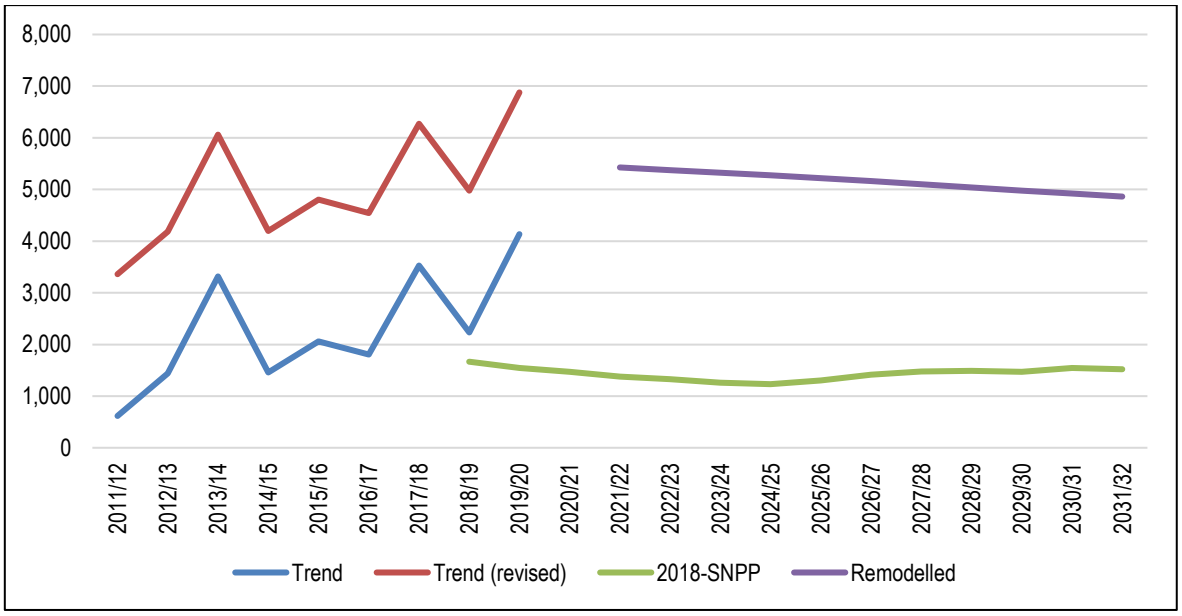
3.5.1 The above estimates of fertility, mortality and migration (including changes over time) have been modelled to develop a projection for the period to 2032. The charts below (Figure 3.1 to 3.3) show key components of population change and overall population change. The projection is compared with that from the 2018-based SNPP, that being the most recent projection released by ONS.

Figure 3.1: Past trends and projected natural change – Oxfordshire



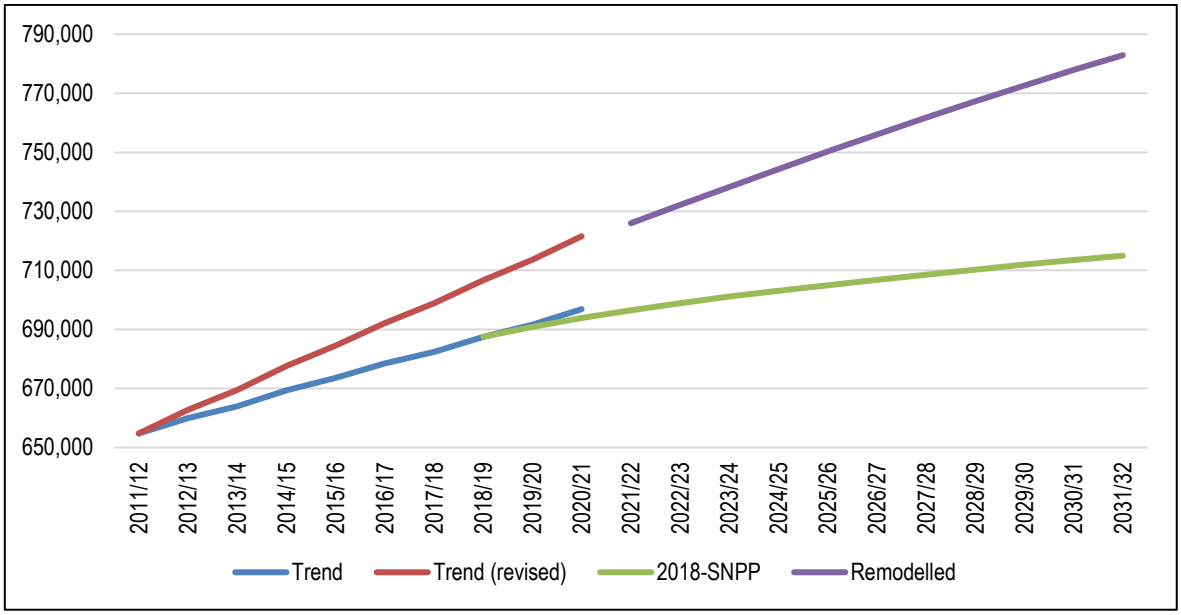
Source: ONS and demographic projections

Figure 3.2: Past trends and projected net migration – Oxfordshire



Source: ONS and demographic projections

Figure 3.3: Past trends and projected population – Oxfordshire



Source: ONS and demographic projections

The Census evidence indicates that past population in Oxfordshire has been under-estimated. An updated demographic projection has therefore been developed. Relative to the latest ONS projections (2018-based), this updated projection generally assumes higher death and lower birth rates but also higher net migration to Oxfordshire over the previous 5 year period. The analysis below sets out the results of this updated projection.

3.5.2 Table 3.12 shows estimated population growth across the County split into 3 broad age bands (which can generally be described as a) children, b) working-age and c) pensionable age). This analysis shows population being projected to increase by around 55,600 people – this is a 7.6% increase over the 10-year period. The population aged 65 and over is projected to see the highest proportionate increase, but in actual number terms the population aged 16-64 is also projected to see a notable level of growth. The increases in in population can be compared with the change shown by the Census (for 2011-21) of 10.9%.

Table 3.12 Projected change in population by broad age group (2022-32) – Oxfordshire

	2022	2032	Change	% change
Under 16	130,584	126,611	-3,972	-3.0%
16-64	468,117	491,462	23,346	5.0%
65+	133,496	169,716	36,221	27.1%
TOTAL	732,196	787,790	55,594	7.6%

Source: Demographic projections

3.6 Household Projections

3.6.1 The final part of the projection is to convert population estimates into households by discounting the communal population (to give a household population) and then applying household representative rates (HRR). The first analysis is

however to estimate the number of households as of 2021. Table 3.13 shows household estimates from the Census and also dwelling counts from DLUHC live tables. Modelling has been undertaken to provide estimated households in 2021 based on looking at the relationship between households and dwellings in 2011 and applying a similar relationship to 2021 dwellings. The number of households is lower than the number of dwellings as some households at any time are vacant to allow for their repair/ renovations and for turnover of properties in a functioning market.

Table 3.13 Change in the number of households and dwellings (2011-21)

		2011	2021	Change
Oxfordshire	Households	258,800	288,100	29,300
	Dwellings	269,400	305,100	35,700

Source: ONS (Census) and DLUHC (Table 125)

3.6.2 In projecting forward, data about household representative rates (HRRs) has been drawn from the 2014-based subnational household projections (SNHP). HRRs can be described in their most simple terms as the number of people who are counted as heads of households (or in this case the more widely used Household Reference Person (HRP)). The 2014-based figures are used as these underpin the Standard Method and generally have attracted less criticism in terms of building in a suppression of household formation than more recent projections.

3.6.3 Recent SNHP (since the 2014-based release) have come under some criticism. This is largely as they are based on data in the 2001-11 Census period and project forward trends in household formation in this period to 2021 – one in which housing affordability deteriorated significantly – with age/sex-specific household formation rates held constant thereafter. In Oxfordshire, this suppression is particularly evident for the 25-34 age group where there was a notable drop in formation rates from 2001 to 2011, and ONS are projecting some continuation of this moving forward to 2021, after which the (lower) rate is held broadly stable. These issues inform why the latest household projections are not used in the standard method; and we agree that the household formation rates in the 2014-based Household Projections are preferable for planning purposes.

3.6.4 Data about the communal population has also been drawn from the 2014-SNHP. For all areas, the 2014-HRRs have been adjusted to match the estimated number of households shown above with future (projected) years using the same incremental changes as in the base source.

The remodelled demographic projection used in this report therefore adopts consistent assumptions on household formation to the 2014-based Household Projections. The difference arises as the population inputs are different – the population projection developed takes account of more recent migration trends as well as Census data.

3.6.5 The analysis projects an increase of around 3,300 households per annum over the 2022-32 period, as shown in Table 3.14.

Table 3.14 Projected change in households – remodelled projection

	Households 2022	Households 2032	Change in households	Per annum
Oxfordshire	296,596	329,339	32,743	3,274

Source: Demographic projections

4 Housing Market Review

Introduction

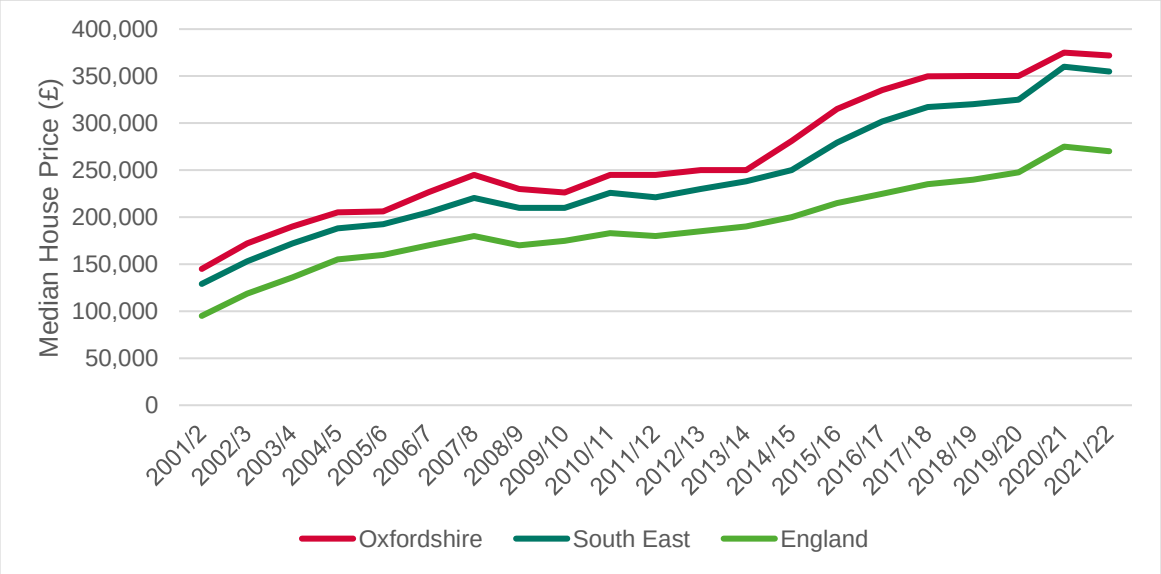
This section provides an analysis of housing market dynamics. It addresses both the sales and private rental markets. It is prepared taking account of the latest data at the time of writing but is prepared at a time of flux in housing market conditions and market uncertainty. It provides an overview of housing costs and affordability issues in Oxfordshire, using the latest data, which feed through to consideration of scenarios for overall housing growth.

4.1 Sales Market

4.1.1 House prices have an important influence on the affordability of market housing to buy. House price changes over time are influenced by inflation and the balance of supply and demand in the market. The ability for house prices to grow is influenced by what households can afford, which in turn is influenced by other factors such as growth in earnings, taxation, interest rates and the availability of mortgage finance.

4.1.2 The long-term trend in house prices is shown below. House prices have grown significantly, increasing in value by a factor of 2.6, influenced by a sustained under-supply of homes. A stronger supply/demand imbalance is evident in the South East region than is the case nationally and this has been borne out in Oxfordshire as well looking over the 20 year period.

Figure 4.1: House Price Trends, 2002-22



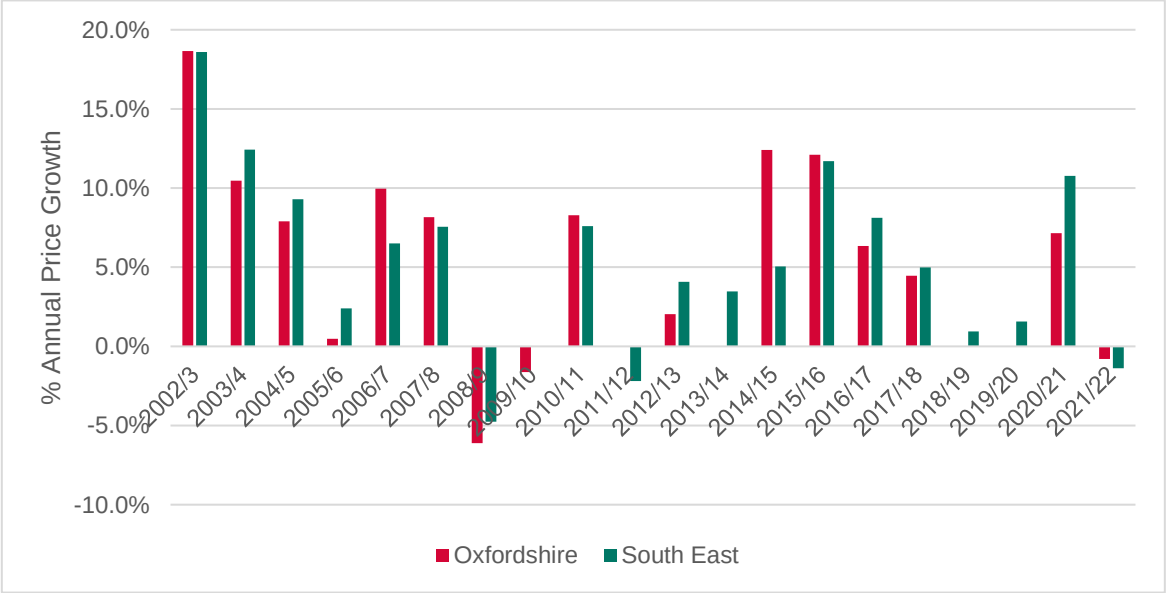
Source: Iceni analysis of ONS HPSSA Dataset 9

4.1.3 A major factor in house purchase decisions is access to mortgage finance. Prior to the credit crunch in 2008, ready access to credit facilitated house purchases and generally supported a strong period of housing demand. An increase in interest rates in 2005 had an evident cooling affect on house prices.

4.1.4 Mortgage availability was then much more restricted between 2008-14 as banks tightened loan-to-value ratios and reviewed lending criteria. As can be seen below, the 2008-14 period was characterised by negative or low house price inflation.

4.1.5 From 2013/14 access to mortgage finance then began to improve, supported by the Bank of England's Funding for Lending Scheme; whilst since 2013 the market has also been supported by the Government's Help-to-Buy scheme which has both reduced risks to lenders and reduced deposit requirements for many First-time Buyers.

Figure 4.2: House Price Growth, Oxfordshire and South East

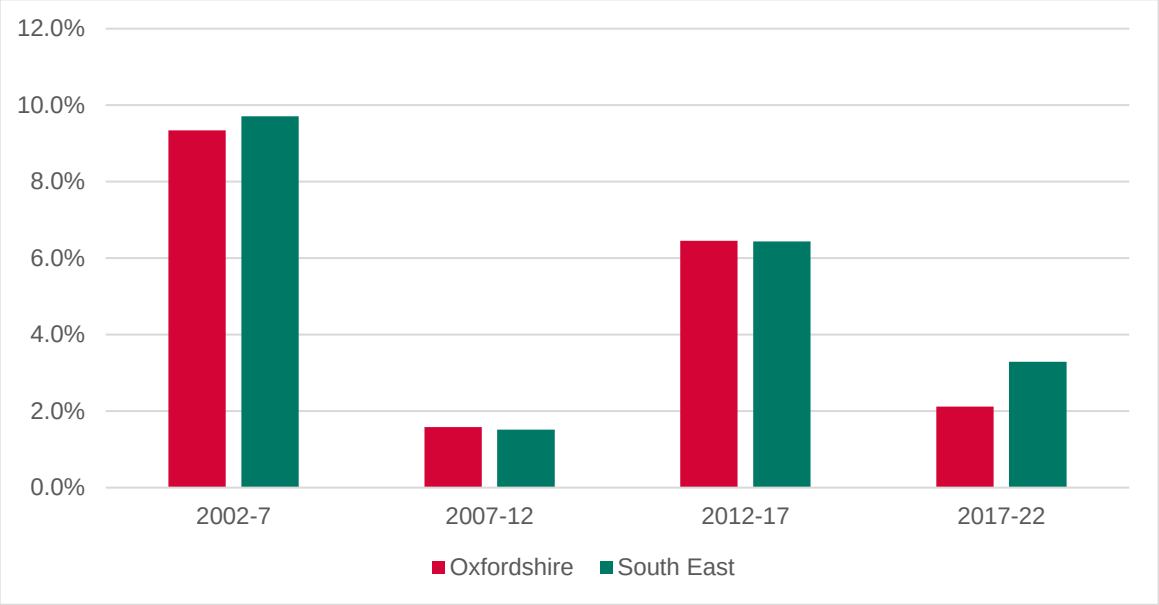


Source: Iceni analysis of HMLR/ONS Median House Prices (ONS Dataset 9)

4.1.6 The graph above however shows that the more recent trend has been of some divergence in price inflation in Oxfordshire, relative to the wider region. In Oxfordshire, house prices have increased by 2.1% pa over the 5 year period since 2016. This is around a third lower than the price growth trend across the region (3.3%) and below that nationally (3.7%). The recent growth in house prices is also notably more modest than the long-term 20 year trend – indeed recent house price growth in Oxfordshire has been less than half of this longer-term trend. This correlates with stronger housing supply across the County.

4.1.7 The 2020-21 period saw stronger house price growth driven by the combined effect of Covid resulting in a spike in demand as households re-evaluated their living circumstances (with buyers particularly seeking greater indoor and external space), combined with the temporary cuts to Stamp Duty (the 'Stamp Duty Holiday') the effect of which was to reduce the transactional costs of moving, which in a high value market such as this can be significant. But once again, house price inflation was weaker in Oxfordshire than across the wider South East.

Figure 4.3: Annual House Price Inflation relative to South East Region



Source: Iceni analysis of HMLR/ONS Median House Prices (ONS Dataset 9)

The evidence shows a positive correlation between a notable increase in housing delivery over the last 5 years in Oxfordshire relative to many other parts of the region and weaker house price growth, despite the county's relatively strong economic performance.

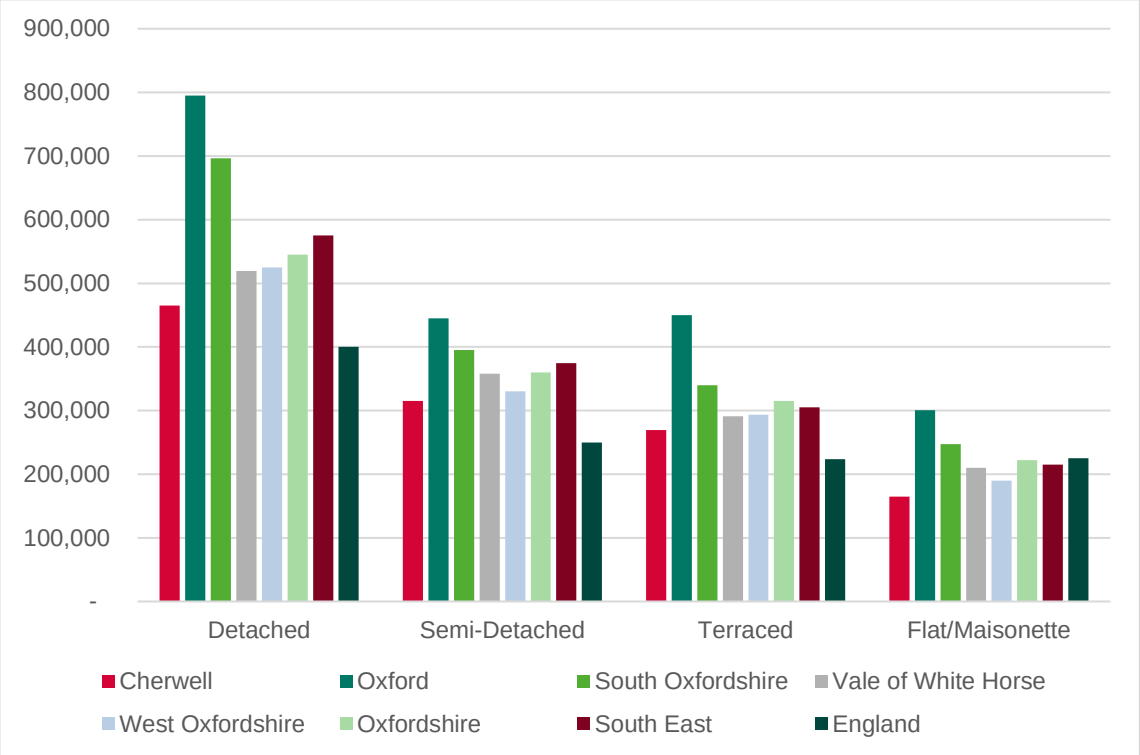
4.1.8 At a district level, the higher relative house prices are in Oxford and South Oxfordshire; with Cherwell being the only authority in which prices are to any significant degree below the South East average.

Figure 4.5: Median House Prices in Oxfordshire Districts, Year to March 2022

Source: Iceni analysis of HMLR/ONS Median House Prices (ONS Dataset 9)

4.1.9 The price premium associated with properties in the City comes out more clearly if relative prices for different products are considered. Relative to the County average, prices in Oxford are 24% higher for semi-detached properties, 35% higher for flats, and 43% and 46% higher for terraced and detached properties. There is an evident and notable price premium across property types. This reflects a combination of the City's economic strength (which influences both demand and earnings) and its more limited supply (particularly for larger homes). Detached prices have seen the strongest price growth through the pandemic.

Figure 4.6: Median House Price by Property Type, Year to March 2022



Source: Iceni analysis of HMLR/ONS Median House Prices (ONS Dataset 9)

4.1.10 Oxford and South Oxfordshire stand out as having seen notably stronger recent house price growth.

Table 4.1: Annual House Price Growth

	2 Yr Growth pa	5 Yr Growth pa	10 Year Growth pa
Cherwell	£8,925	£5,000	£11,500
Oxford	£17,500	£10,000	£18,000
South Oxfordshire	£20,000	£11,000	£16,000
Vale of White Horse	£10,000	£5,700	£12,000
West Oxfordshire	£1,250	£5,500	£11,200
Oxfordshire	£11,000	£7,400	£12,700
South East	£15,000	£10,610	£13,400

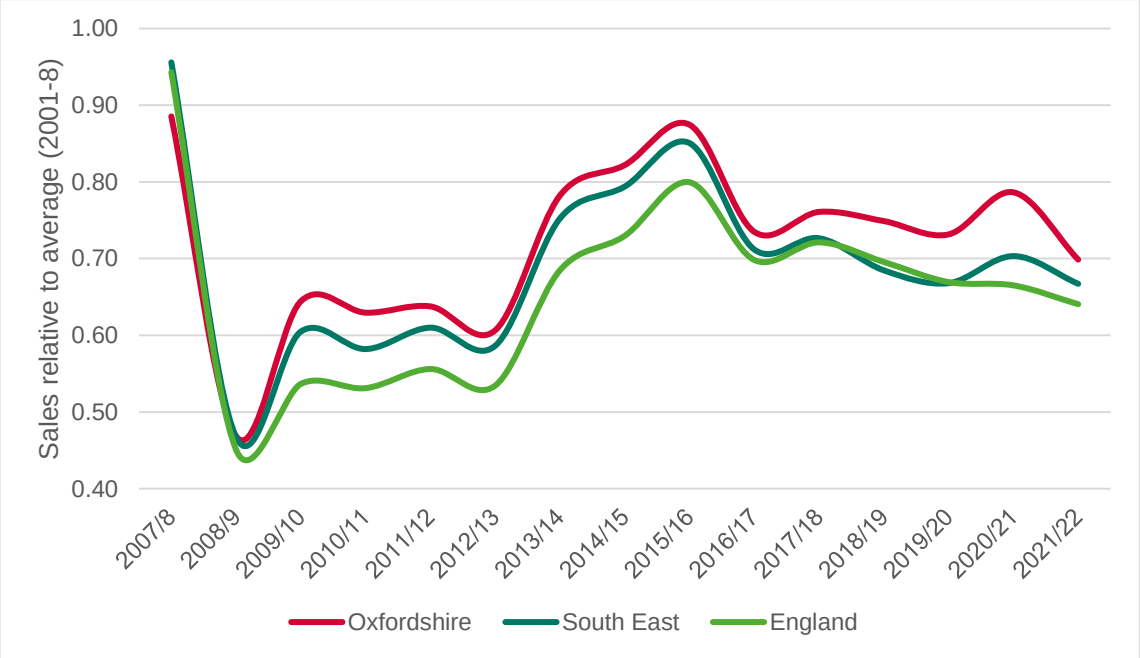
Source: Iceni analysis of HMLR/ONS Median House Prices (ONS Dataset 9)

4.2 Sales Trends

4.2.1 Sales volumes over the past decade have been more modest than those pre-2008 influenced by the low inflation environment (meaning that the value of debt has not been reducing to the same extent in real terms as in previous decades); longer mortgage terms; together with an ageing population who move less frequently with a public policy focus on caring for older people in their own homes (resulting in fewer moves). Added to this, increasing house prices have increased the transactional costs of moving and since 2016 the 3% additional Stamp Duty applicable to investment purchases (together with changes to mortgage interest rate relief) have moderated investment purchases (such as from buy-to-let landlords). These influences have particularly affected higher-value markets such as Oxfordshire.

4.2.2 Sales volumes benchmarked relative to trend prior to the 2008 recession are shown below. Whilst there are clearly macro-economic influences on the trend year-on-year (shown through the similarity between trends at an Oxfordshire to those at a regional and national scale). The upturn in demand from 2013 resulting from increased mortgage availability (and Help-to-Buy support) is evident; as well as the cooling effect of Brexit-related uncertainty from 2016/17. The Covid induced burst of activity in 2020/21 is also clear, with the evidence showing that there was a greater positive uptick in sales seen in Oxfordshire than across the wider region.

Figure 4.7: Comparative Sales Trends

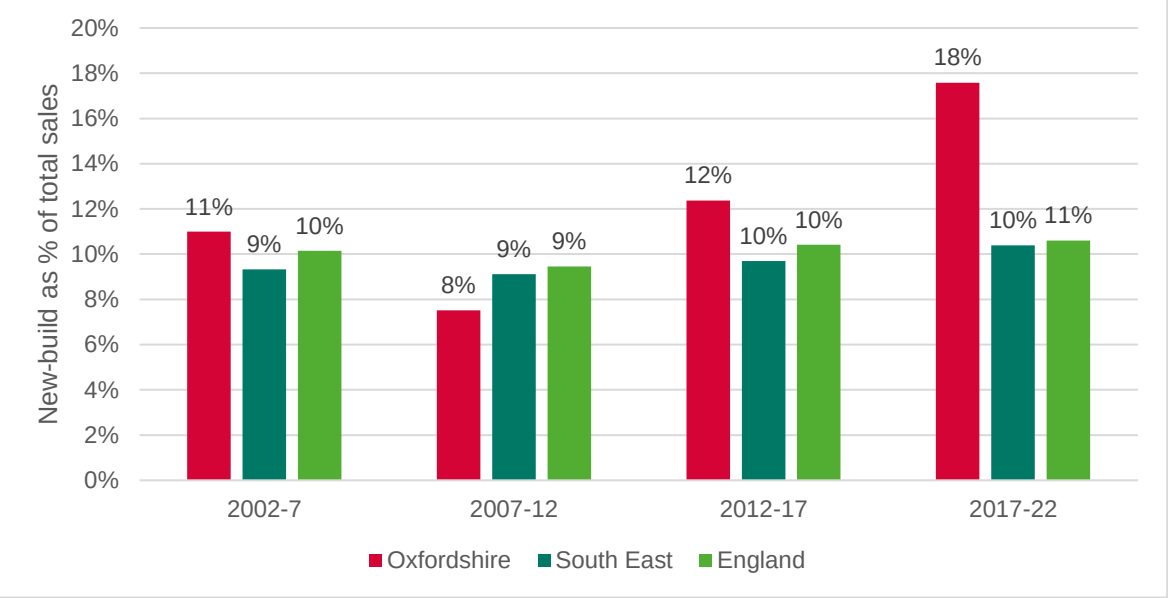


Source: Iceni analysis of ONS HPSSA Datasets 7&8

4.2.3 The evidence indicates that it is the scale of new-build development in Oxfordshire which has particularly supported stronger comparative sales over the period since 2015 relative to wider geographies.

4.2.4 Typically around 10% of total sales are of new-build properties. The Help-to-Buy scheme has helped this to rise to 11% nationally over the most recent 5 year period (2017-22). Over the pre-2012 decade this held true in Oxfordshire as well; but more recently new-build sales volumes have risen – to 12% of sales in the 2012-17 period and to a notable 18% of sales over the five years to March 2022.

Figure 4.8: New-Build Sales – Oxfordshire



Source: Iceni analysis of ONS HPSSA Datasets 7&8

4.2.5 The stronger new-build development thus correlates to stronger overall sales in Oxfordshire in relative terms; and to weaker house price growth relative to the region.

4.2.6 The District level evidence is relatively consistent outside of Oxford City, with a higher proportion of new-build sales evident in each area in the most recent five year period as local plans supporting higher growth have been put in place. The highest proportion of new-build sales have been in Cherwell and Vale of White Horse. Oxford's lower new-build sales is influenced by its constrained land supply.

Table 4.2: % New-Build Sales – Oxfordshire Districts

	2002-7	2007-12	2012-17	2017-22
Cherwell	10%	6%	15%	21%
Oxford	13%	7%	3%	3%
South Oxfordshire	4%	5%	14%	17%
Vale of White Horse	9%	9%	19%	23%
West Oxfordshire	20%	11%	8%	16%
Oxfordshire	11%	8%	12%	18%

Source: Iceni analysis of ONS HPSSA Datasets 7&8

Affordability of Homes to Buy

4.2.7 The standard 'planning measure' of housing affordability is the house price-to-workplace earnings ratio. The latest data, for 2021, points to median house prices of 11x earnings across Oxfordshire with the highest ratio being in Oxford (12.0) and South Oxfordshire (13.1). The ratio in all Oxfordshire authorities is above the South East average. These ratios have a direct bearing on housing need as they influence the 'affordability adjustment' which is applied through the standard method.

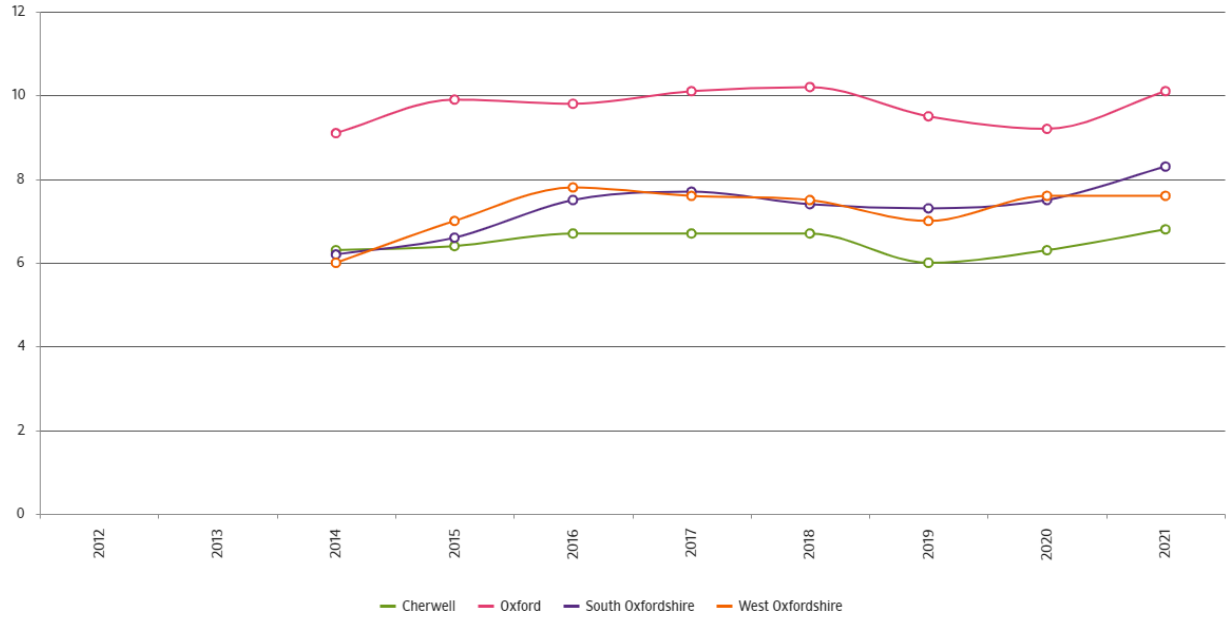
Table 4.3: Median Affordability Ratios (2003-2021)

	2003	2008	2013	2018	2021	Increase 2003-2021
England	5.93	6.97	6.76	8.04	9.05	+3.12
South East	7.22	8.22	8.26	10.37	11.12	+3.90
Oxfordshire	**7.85**	**9.1**	**8.61**	**10.44**	**11.08**	**+3.23**
Cherwell	*7.02*	*8.54*	*8.46*	*9.77*	*10.28*	*+3.26*
Oxford	*8.87*	*9.7*	*9.69*	*11.08*	*12.05*	*+3.18*
South Oxon	*7.86*	*9.71*	*10.49*	*12.37*	*13.07*	*+5.21*
VoWH	*7.55*	*8.35*	*7.5*	*9.87*	*9.96*	*+2.41*
West Oxon	*8.34*	*9.35*	*9.36*	*11.55*	*11.4*	*+3.06*

Source: ONS Workplace-based Affordability Ratios, Iceni Projects

4.2.8 Nationwide's House Price Earnings Ratio (HPER) is an alternative measure which takes Nationwide's data on first-time buyer house prices and compares this with earnings for full-time workers. Their most recent report identifies Oxford as having a ratio of 10.1 for 2021, which is the highest affordability ratio in the region; with the ratio having increased from 9.2 the previous year. As the analysis below shows, this is notably above levels in other Oxfordshire authorities; but the broad trends over recent years have been of relative stability on this ratio.

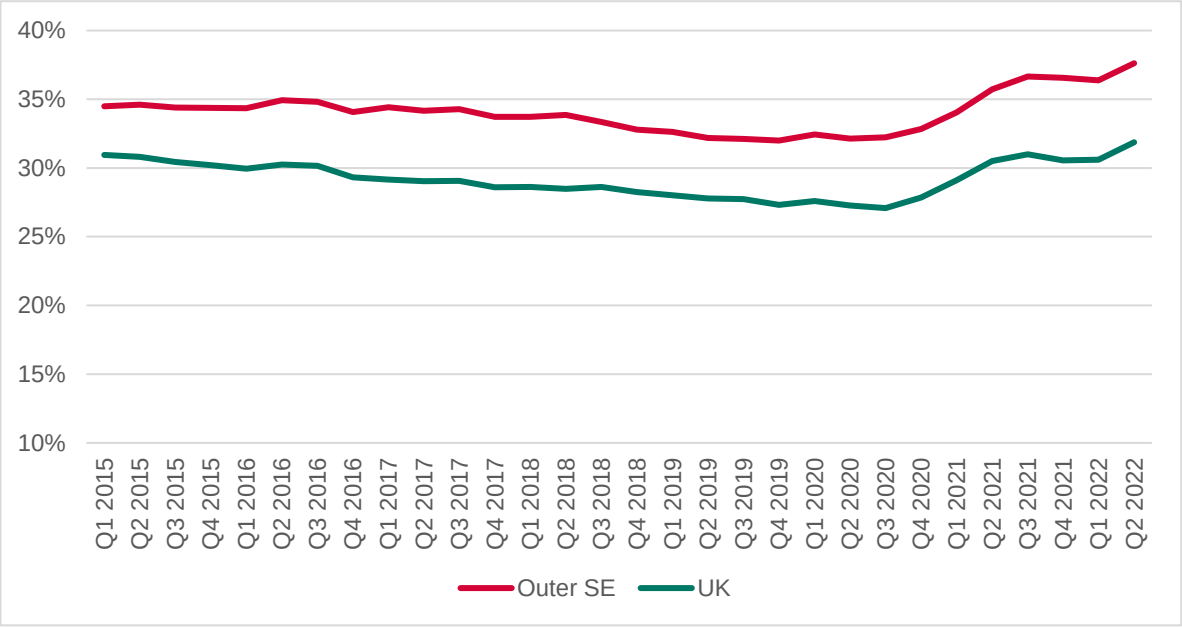
Figure 4.9: Nationwide First-time Buyer Affordability Ratio



Source: Nationwide House Price Index

4.2.9 However, if mortgage payments relative to take-home pay is considered, the pandemic effect on house prices has clearly resulted in affordability for first-time buyers being increasingly stretched.

Figure 4.10: Mortgage payments for 1st Time Buyers as % of Mean Take-Home Pay



Source: Nationwide, Iceni Projects

4.3 Market Outlook

4.3.1 Even before the 'mini budget' of September 2022 the residential market appeared to be cooling. Hometrack's September 2022 publication describes a market which was transitioning to a 'buyers market' with recent house price growth and rising interest rates further pressurising affordability for first-time buyers.

4.3.2 Hometrack's September report indicated that new-build sales appeared to be holding up but with buyer interest weaker than a year previously and sellers beginning to adjust to a more price-sensitive market. It predicted rising interest rates would impact on buying power and refocusing the market more towards smaller properties and cheaper areas – with Hometrack suggesting a particular impact on higher value markets such as Oxfordshire.

4.3.3 Stamp Duty changes introduced by Government in September 2022[7] will have some effect, particularly in Oxfordshire and the greater South East more widely where the Stamp Duty costs of moving home are significant. Whilst this will support First-time Buyers, these transactional costs could well be offset by the ongoing higher costs of servicing mortgages driven by growing interest rates. Market expectations are of rising interest rates as the Bank of England seeks to curb inflationary pressures in the wider economy (driven by energy prices). The recent effects of the September 2022 'mini budget' appear to have compounded with recent weeks seeing 2 year fixed rate mortgage rates increase to over 6%. Some short-term impacts on the housing market appear highly likely with higher interest rates expected to moderate price growth.

4.3.4 Whilst these issues may have a short-term effect on the balance of supply and demand for housing for sale, there remains a long-term structural imbalance between supply and demand in the housing market nationally. It is important that plan-making

[7] Increasing the threshold from which SDLT is payable from £125k to £250k, with a £425k threshold for First-time Buyers; with discounted Stamp Duty costs for First-time Buyers purchasing properties of up to £625,000 in value (up from £500k).

activities take account of these long-term dynamics as they are looking 15-20 years into the future.

4.4 Rental Market

4.4.1 The Private Rental Sector forms an important part of the housing market in Oxfordshire. Median rental costs in Oxfordshire overall, as well as all local authorities, within it are higher than both the South East and England averages. Cherwell sees the lowest median rental costs overall with Oxford City the highest, following the trends seen in the sales market. Prices in Oxford City are exceptionally high with median rents for even one bedroom properties exceeding the overall median monthly rent for the whole South East region.

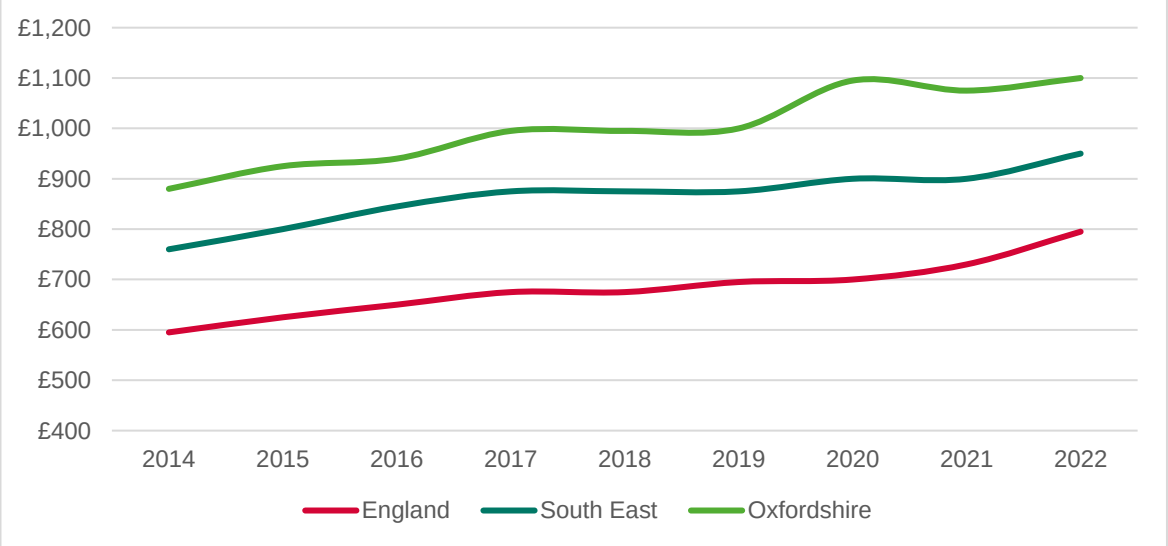
Table 4.4: Median Rents, Oxfordshire Local Authorities (Year to March 2022)

	Room	Studio	1-bed	2-beds	3-beds	4-beds+	Overall
Cherwell	£450	£650	£780	£950	£1,200	£1,688	£975
Oxford	£600	£800	£1,050	£1,250	£1,500	£2,288	£1,275
South Oxfordshire	£513	£627	£825	£1,025	£1,350	£2,200	£1,100
Vale of White Horse	£650	£715	£825	£1,025	£1,250	£1,795	£1,025
West Oxfordshire	£430	£625	£775	£940	£1,295	£1,895	£1,000
Oxfordshire	**£550**	**£695**	**£875**	**£1,090**	**£1,325**	**£2,000**	**£1,100**
South East	**£450**	**£625**	**£775**	**£950**	**£1,200**	**£1,733**	**£950**

Source: Iceni analysis of ONS Private Rental Market Statistics

4.4.2 Since 2019 median rents have increased by £100 in Oxfordshire (10%). This growth rate is higher than that of the South East in that period (8.6%) albeit it is below the England benchmark (14.4%).

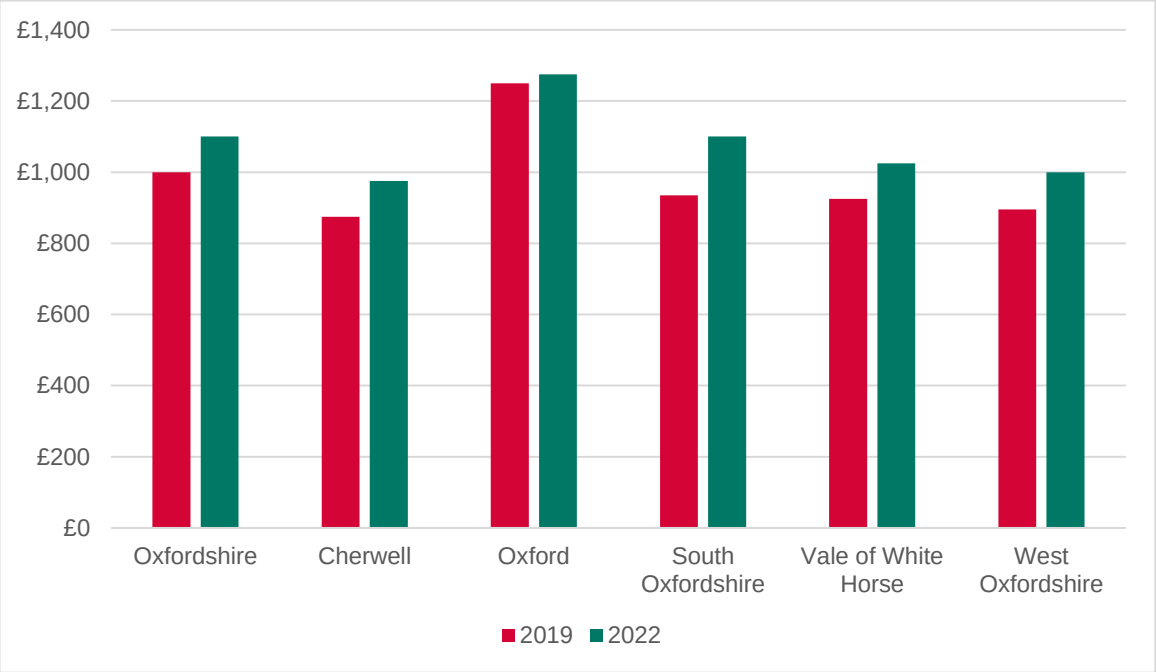
Figure 4.11: Median Rental Costs (2014-2022)



Source: ONS, Iceni Projects

4.4.3 Rental costs appear to have grown more strongly in the Districts outside of Oxford City (2%), with the highest growth in South Oxfordshire (17.6%). In Cherwell, rents have increased by 11.4%.

Figure 4.12: Median rental cost (all property types, 2019 and 2022)

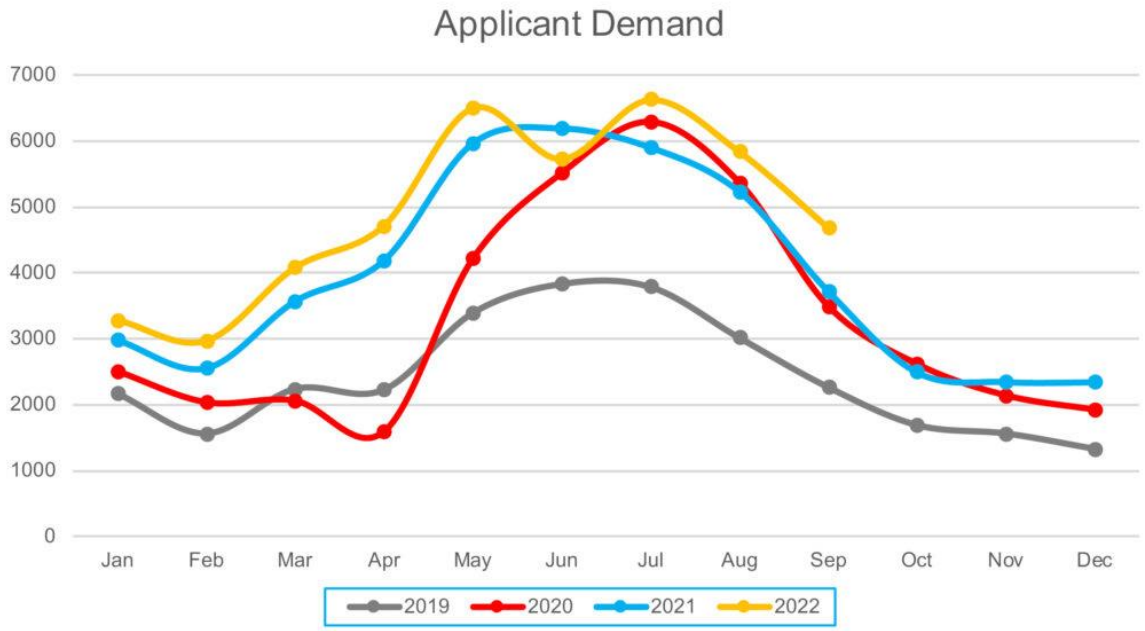


Source: ONS, Iceni Projects

4.4.4 Finders[8] report a continuing chronic shortage of properties to let across Oxfordshire and across all parts of the lettings market. This is consistent with the position nationally. With multiple interested parties, properties are letting rapidly and demand is such that Finders report properties being listed only for a matter of hours; tenants offering on properties which are unseen or bidding higher rents to secure a home. The chart below indicates the profile of applicant demand over recent years, drawn from Finders' website.

[8] https://www.finders.co.uk/news/2022/10/a-busy-summer-with-continuing-demand/#more-9162

Figure 4.13: Applicant Demand for Rental Properties in Oxfordshire



Source: Finders

4.4.5 Increased hybrid working is resulting in higher professional couples now competing with small families for two- and three-bedroom properties. With rising energy costs, tenants are increasingly seeking energy efficient properties and, as with the sales market, the short-term outlook is of growing demand for smaller properties in particular which are more affordable. Hometrack expect that as cost-of-living pressures build in the short-term, renters will be looking to balance the combined impact of rental and running costs as they make home-moving decisions; and Hometrack expect this to support growing appeal for apartments and energy-efficient homes.

4.4.6 In the short-term interest rates rises could restrict First-time Buyer numbers, with households renting for longer and placing further demand pressure on the rental market; albeit that affordability pressures could moderate the scope for further rental growth.

4.4.7 Set against this is supply, which is traditionally difficult to quantify, and has been affected by legislative changes affecting the attractiveness of Buy-to-let Investments. With withdrawal of mortgage interest relief from 2016 together with higher Stamp Duty costs for BTL purchases, the buy-to-let sector has become less attractive. The upcoming Rental Reform Bill will improve the standards of homes but will also increase costs further for landlords. These issues are impacting on the supply and influence the trend in rental growth.

4.4.8 Hometrack expect limited prospect of significantly improved rental supply (probably particularly for smaller landlords) in the short-term, with private landlords continuing to sell off homes. Higher mortgage costs can be expected to compound demand pressures within the PRS. Together the short-term prospects are therefore for further rental growth.

4.4.9 Market conditions are clearly attractive for institutional investment in the sector through Build-to-Rent development, particularly within Oxford City and the larger

towns where there is a concentration of potential tenants. The dynamics of this market, and that for CoLiving, are considered further in Section 8.

4.5 Local Letting Agents View

4.5.1 In the last 18 months the rental market has changed dramatically. This is principally due to a lack of supply but also increased demand.

4.5.2 The lack of supply has come from higher house prices resulting in many smaller (single home) landlords seeing it as a good time to sell up. On the rare occasions some properties have come back on the market having failed to sell but overall there has been a reduction in supply.

4.5.3 A number of agents note that tenants are staying in their homes for longer, thus the turnover of rental properties is slowing. This was due to uncertainty in the jobs market and rising house/rental costs making people less inclined to move.

4.5.4 Previously the average length of stay would be 18 months but it is now well in excess of two years. One agent noted that only around 10% of tenants now live in a home for less than 18 months.

4.5.5 Rising house prices have also meant that people are selling their home at what they see as the peak and moving out before they find a new home of their own. As a result, the short term letting market for family housing has boomed.

4.5.6 All the agents noted that rents have increased significantly. Landlords are seeking the most money they can get for their property. This has resulted in bidding for rental accommodation which was relatively uncommon in the City before now. Examples of how this drives up the market include:

- A home that was advertised as £2,500 pcm is going for £3,000 pcm
- A 1-bed flat that was advertised at £850 pcm is going for £1025 pcm.

4.5.7 Such is the demand, new properties are regularly seeing 50-60 enquiries the day they are advertised. They are also frequently let on the same day.

4.5.8 In relation to the built to rent market, the agents agreed that there will always be demand for rental accommodation. Once agent suggested that co-living would work with visiting academics and those on sabbatical at the University. Often these people are working long hours on their research and just want a place to rest their heads.

4.5.9 Another agent noted that the teaching hospitals also provide a steady stream of professionals looking for rental accommodation. They are contracted for reasonably short terms and as a result may seek short term lets in a professional setting. The hospitals in Oxford do have some accommodation of their own on site.

4.5.10 Demand for rental accommodation would likely to be from young professionals and recent graduates. Younger people on a higher wages are still looking for apartments or flats and in areas where there is good nightlife.

4.5.11 One agent noted a distinct lack of smaller studios and one-bedroom flats in the region of £900 pcm. This would also feed into the narrative of an unmet demand for co-living and other build to rent products.

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5 Office and R&D Market Review

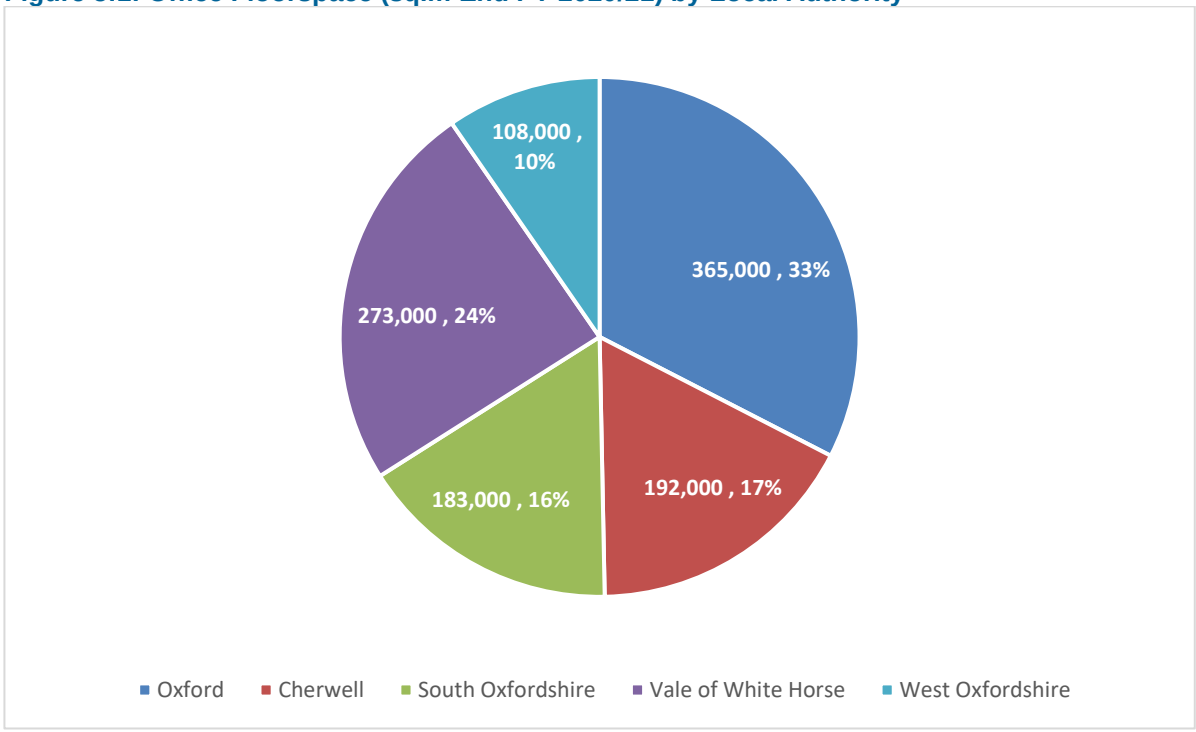
Introduction

Sections 5 and 6 consider commercial property market dynamics. They address dynamics in the office, lab/R&D, industrial and warehousing sectors based on information at the time of writing in Autumn 2022. They provide an understanding of commercial property market dynamics for office & research and development floorspace (Use Classes E(g)(i) and E(g)(ii), which is set out in Section 5; and for industrial floorspace (Use Classes E(g)(iii), B2 and B8), as set out in Section 6, which then feeds into the consideration of future employment land needs in Section 8 of the report. The understanding of commercial market dynamics also informed the consideration of economic growth scenarios in Section 7. Whilst the analysis focuses on these commercial property sectors as this feeds into the employment land forecasting in Section 8; the economic forecast scenarios considered in Section 7 also consider other types of employment including in education, retail, health and other consumer-related services, beyond those typically associated with the B-class sectors.

5.1 Office Stock

5.1.1 At the end of FY 2020/21, there was 1,121,000 sqm of office floorspace across Oxfordshire accounting for 9% of the South East's stock. The pie chart below breaks this down by local authority area. Oxford accounts for a third of office floorspace in the County and is the largest market. The stock in Cherwell is more modest (17%).

Figure 5:1: Office Floorspace (sq.m End FY 2020/21) by Local Authority



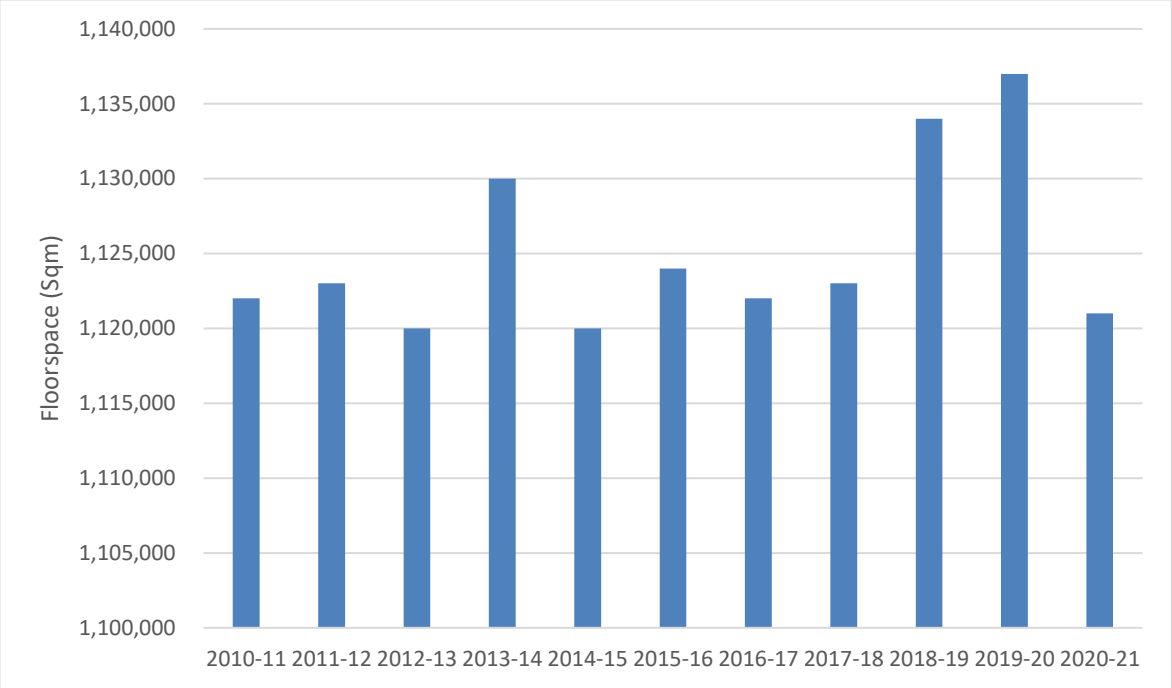
Source: Iceni analysis of VOA data

5.1.2 CoStar suggests that Oxfordshire had 1.4 million sqm of office floorspace at the end of FY 2020/21 which is 25% higher than the VOA data suggests. This difference

is due to a number of reasons including that the definition of office space used by CoStar differs to that used by the VOA (which for instance treats labs as “other” floorspace) and the fact that data is collected in a different manner by each organisation.

5.1.3 The VOA dataset indicates that the amount of floorspace remained relatively constant between 2010/11 and 2017/18 before a sharp rise to a peak in 2019/20. In 2020/21 floorspace then dropped back, by c. 1.5%, to 2010/11 – 2017/18 levels.

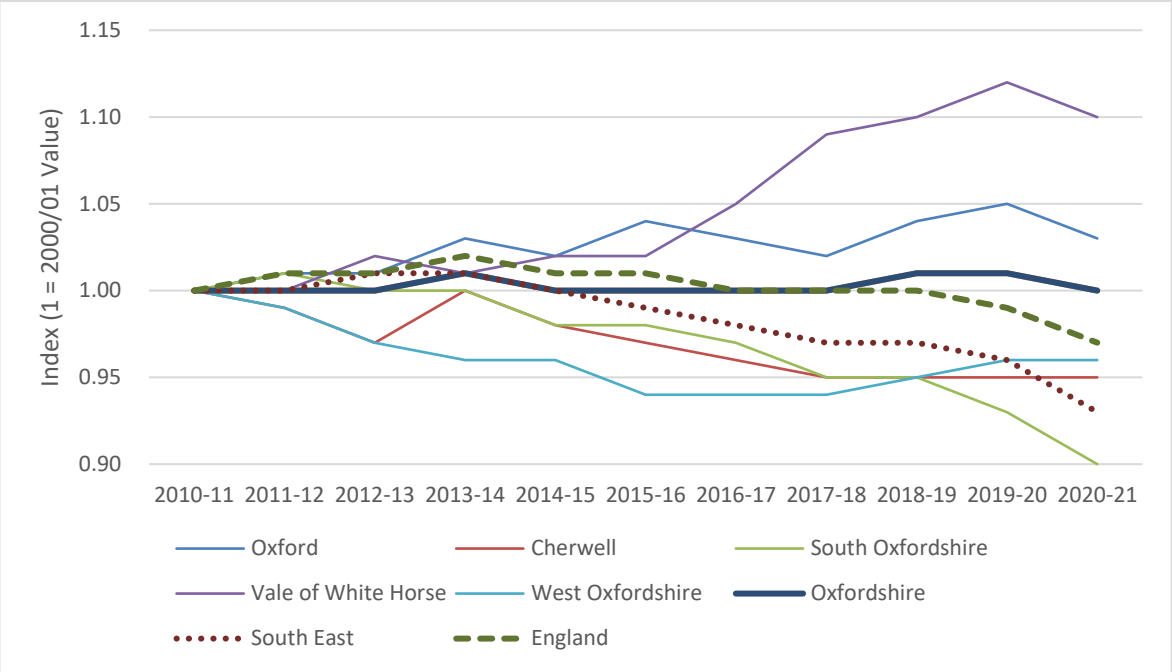
Figure 5.2: Trends in Office Floorspace across Oxfordshire



Source: Iceni analysis of VOA data

5.1.4 At a district level, office floorspace in Oxford and the Vale of White Horse has grown over the last 10 years; whereas it has fallen in other authorities, similarly to what can be seen across the South East and England as a whole. The trend over the last decade has typically been ‘spaceless growth’ in office-based activities as space is used more intensely (with hot-desking / agile working) and growth in home working.

Figure 5.3: Indexed Office Floorspace Change, 2011-21



Source: Iceni analysis of VOA data

5.1.5 The quality of office stock varies spatially. Oxford has the highest percentage of good quality floorspace (3 star and above, based on CoStar ratings) at 85%, followed by the Vale of White Horse (75%). In Cherwell, 60% is good quality.

Table 5.1: Office Floorspace by CoStar Grade

	Stock Grade			
	1	2	3	4
Cherwell	2%	39%	59%	1%
Oxford	0%	15%	72%	13%
South Oxfordshire	2%	39%	57%	2%
Vale of White Horse	0%	24%	59%	16%
West Oxfordshire	2%	40%	56%	1%
Oxfordshire	1%	27%	63%	10%

Source: Iceni analysis of CoStar data

5.1.6 The table below shows the split of Oxfordshire's office floorspace by age (built or renovated – the later of the two). Overall, 62% of floorspace was built before the year 2000. The highest percentages of floorspace built since the year 2000 are in Oxford and Vale of White Horse (at 38% and 50% respectively) which reflects the fact that these areas have concentrations of modern science and technology parks.

Table 5.2: Age of Office Floorspace

	Pre 1940	1940-1979	1980-1999	2000-2009	2010-2019	2020-2022
Cherwell	21%	21%	27%	22%	7%	2%
Oxford	20%	16%	26%	27%	11%	0%
South Oxfordshire	24%	8%	35%	25%	4%	3%
Vale of White Horse	5%	11%	34%	28%	15%	7%

West Oxfordshire	13%	8%	55%	20%	4%	0%
Oxfordshire	16%	14%	32%	26%	10%	3%

Source: Iceni analysis of CoStar data

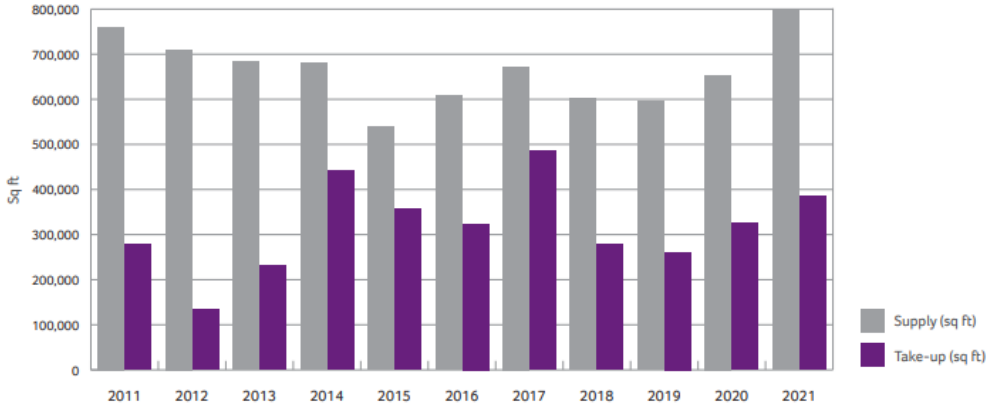
Overall, Oxfordshire's office market is relatively large, with a third of stock concentrated in Oxford. Office stock was growing pre-pandemic but this trend has since been reversed. The quality of office stock in Oxfordshire is decent although this varies between authorities. However, 62% of office floorspace was built before the year 2000.

5.2 Office Market

5.2.1 Whilst many office markets were hit hard by Covid-19 and the changes to working patterns induced by this, Oxfordshire's market has faired better. Indeed, Oxfordshire has been at the forefront of the fight against Covid-19 including in the development of vaccines; and demand from the life sciences sector in particular has significantly influenced sub-regional market dynamics.

5.2.2 The strength and growth potential of the life sciences sector is supporting significant investment and development interest. VSL report aggregate office/lab take-up of 384,700 sq.ft in 2021 which was approximately 10% above the 5 year average implying that this was around 350,000 sq.ft (32,500 sq.m).

Figure 5.4: Office Take-Up and Supply – A34 Corridor



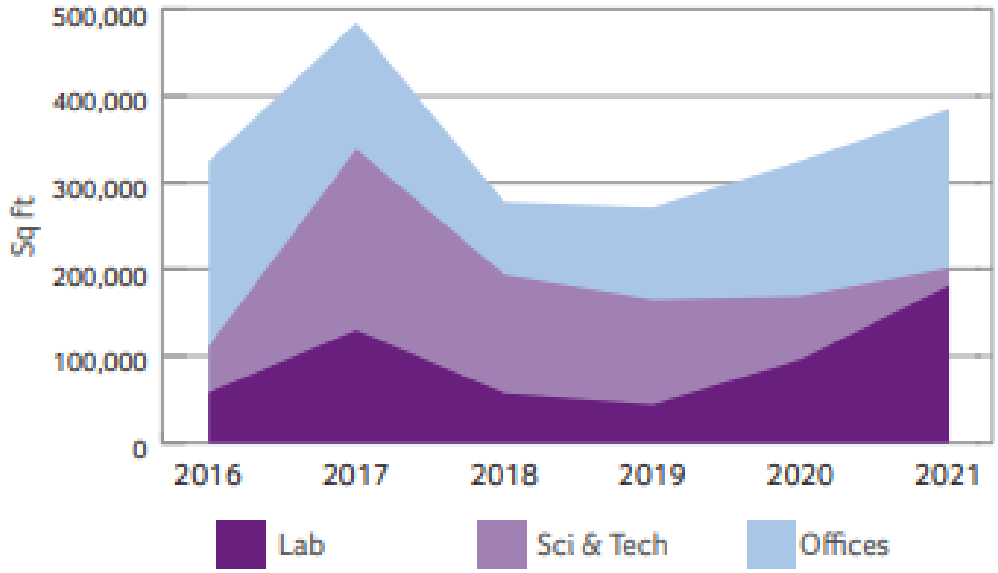
Source: VSL Oxfordshire Commercial Property Market Update 2021

5.2.3 Take-up in 2021 was particularly focused on Oxford, which in 2021 accounted for 75% of office take-up across the sub-region/A34 market. Over a 5-year period it has been around 50% of the total. Bidwells however report a strong period of leasing activity at Harwell Campus in H1 2022.

5.2.4 Demand for lab space in Oxfordshire is reported as strong with requirements for incubator space, grow on space and HQ facilities and companies expand. The wider office market has however not been immune to the effects of increasing use of modern telecoms technologies and growth in home and hybrid working. Whilst there remains some uncertainty and the market has not fully 'settled down', the trend is one of occupiers seeking to consolidate (and reduce) their office space on lease events as home working reduces the scale of physical space needs.

5.2.5 What results is an office market which is increasingly orientated towards lab and other R&D space; and away from traditional offices. This is illustrated most clearly in the chart below, drawn from the VSL 2021 Market Report. Lab lettings have risen notably since 2019 and in 2021 accounted for 50% of all office space take-up based on VSL's analysis. Figures from commercial agents differ slightly, with Savills reporting that 64% of office take-up in 2021 could be attributed to the bioscience sector (with 10% technology and 10% professional services).

Figure 5.5: Composition of Office Floorspace Take-Up – A34 Corridor



Source: VSL Oxfordshire Commercial Property Market Update 2021

5.2.6 Bidwell's Arc Databook (Summer 2022) equally provides separate data on offices compared to labs. It indicates five year office take-up of around 250,000 sq.ft (23,200 sq.m) per annum of which c. 100,000 sq.ft is for Grade A space. Lab take-up has averaged 135,000 sq.ft pa (over half of the office total), but with over 200,000 sq.ft taken in 2021 and the evidence for 2022 pointing to a further strong year. Bidwells report demand for lab space having "sharply risen" over the last 18 months.

5.2.7 Given this somewhat "two speed" market, we have segmented our analysis to consider the lab/R&D market separately from more traditional commercial office space where the data allows. Some commercial information is however presented for office and labs together.

Net Absorption and Vacancy Trends

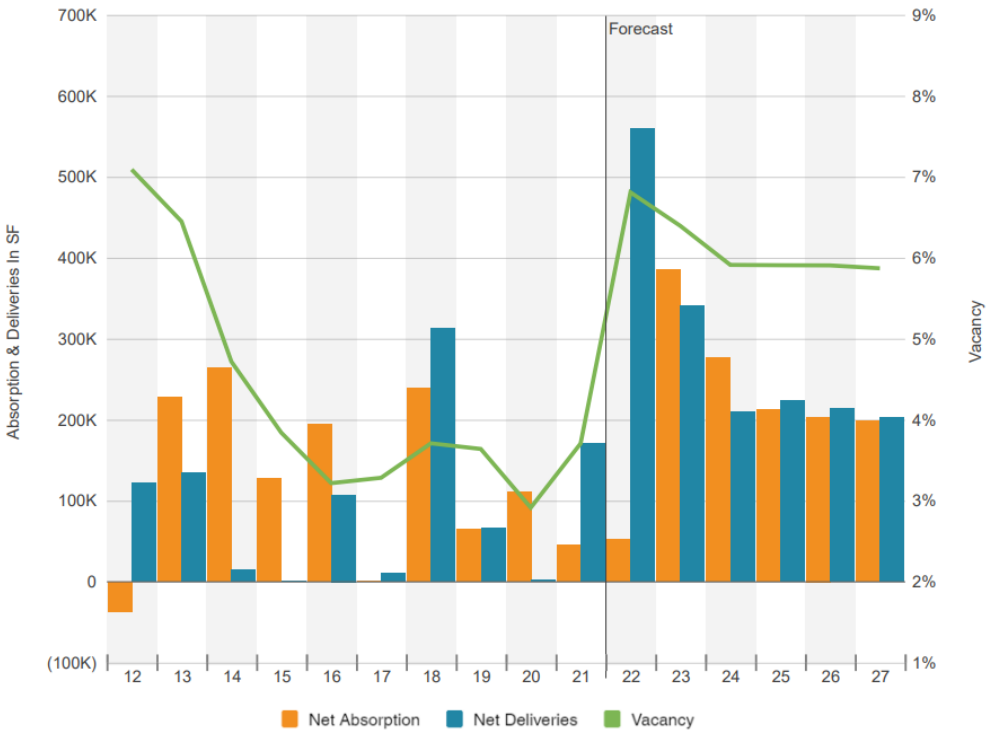
5.2.8 CoStar provides data on net absorption and net deliveries. Net absorption is the balance between the amount of space moved into and moved out of (i.e. net absorption = move ins – move outs). It provides an indicator of the strength of demand. Net deliveries are the difference between floorspace delivered (i.e. constructed and brought onto the market) and demolished (or otherwise taken out of use and removed from the market). When net absorption is greater than net delivery this leads to a falling vacancy rate and vice versa.

5.2.9 The figure below shows net absorption, net deliveries and their resulting impact on vacancy rates across Oxfordshire. Vacancy rates fell between 2012 and 2016 due

to strong net absorption and weaker net deliveries. Between 2016 and 2021, the vacancy rate has remained relatively stable at between 3-4%, meaning net absorption and net deliveries were roughly in balance. The relatively low vacancy rate however will have helped to spur further development.

5.2.10 However more recently the vacancy rate has started to climb, driven in particular by negative net absorption; and CoStar forecast it to rise further to around 7% at year end due to a strong peak in net deliveries of office floorspace. The vacancy rate is then forecast to settle at around 6%.

Figure 5.6: Net Absorption, Net Deliveries and Vacancy Rates, Oxfordshire



Source: CoStar

Vacancy Rates and Availability by Authority Area

5.2.11 CoStar reports that the current office vacancy rate in Oxfordshire is 4.7%. However it should be noted that whilst Oxford's vacancy rate is 6.2% it should be noted that the City Centre (termed the 'Oxford Central' market by CoStar) has a vacancy rate of 2% and the rest of the area (termed the 'Oxford Fringe by CoStar) has a vacancy rate of 9.3%.

Table 5.3: Vacancy Rates by Authority Area, Sept 2022

Authority Area	Vacancy Rate
Cherwell	2.6%
Oxford	6.2%
South Oxfordshire	1.8%
Vale of White Horse	4.4%
West Oxfordshire	8.7%
Overall	4.7%

Source: Iceni analysis of CoStar data

5.2.12 Bidwell's Arc Databook records 733,800 sq.ft of office floorspace available as at Summer 2022. Whilst availability of office space (as separate for labs) increased between 2019 and 2021 to peak at over 10%; the evidence suggests that this has now started to fall and currently stands at 9.9%. The evidence also points to a growth of availability of Grade A space.

5.2.13 The reported office floorspace availability would equate to around 3 years' supply based on five year take-up trends. However the supply position is one of limited supply of office floorspace in central locations, in particular with the loss of office stock to a growing number of lab repurposing schemes; with agents expecting that this will result in further rental growth in the short-term.

5.2.14 The availability of office and lab space in the Oxford market grew by 18% in 2021, based on Savills figures, predominantly as Grade B space came onto the market; resulting in availability rising to c. 740,000 sq.ft at the end of the year. This is expected to recede in 2022.

5.2.15 The table below summarises current levels of availability across Oxfordshire and its constituent authorities recorded on CoStar, taking into account existing floorspace and floorspace which is under construction. The evidence points to:

- Relatively low office floorspace availability in Central Oxford, but offset by the greatest concentration of available space being in the 'Oxford Fringe' business/ science park locations;

- Reasonable level of available space in Cherwell and Vale of White Horse, but focused towards units of < 5,000 sq.m.

5.2.16 Overall, it can be seen that around a third of available floorspace is in the 500 – 2,000 sqm size band. The only available space above 5,000 sqm is in Oxford (Fringe).

Table 5.4: Availability by Authority Area, Sept 2022[9]

	0-100 sqm	100 - 500 sqm	500 - 2,000 sqm	2,000 - 5,000 sqm	5,000 - 10,000 sqm	10,000 + sqm	Total
Cherwell	341	4,860	6,456	33,615			45,273
Oxford Central	311	2,082	4,473	3,019			9,885
Oxford Fringe	231	3,990	20,007	5,943	21,133	15,282	66,585
South Oxfordshire	304	2,469	4,092				6,865
Vale of White Horse	396	6,533	14,808	6,214			27,951
West Oxfordshire	451	3,345	5,289				9,085
Oxfordshire	2,034	23,279	55,125	48,791	21,133	15,282	165,644

Source: Iceni analysis of CoStar data

5.2.17 The only site with over 10,000 sqm of available space is at Plot 16, Robert Robinson Avenue in Oxford Science Park. The building will be 15,300 sqm when completed in 2023 and will provide flexible office/lab space. There is also one property with 5,000 – 10,000 sqm of available space which is currently under construction at Edmund Halley Road on Oxford Science Park in Oxford. The building will be 7,400 sqm when complete in 2023 and will again provide flexible office/lab space.

5.2.18 Bicester has traditionally struggled as an office location and has limited stock; but there is potential for this to grow influenced by its relative affordable housing stock, housing and workforce growth, and its good communications. It has seen some recent investment by tech companies, particularly in the engineering/motorsports sectors.

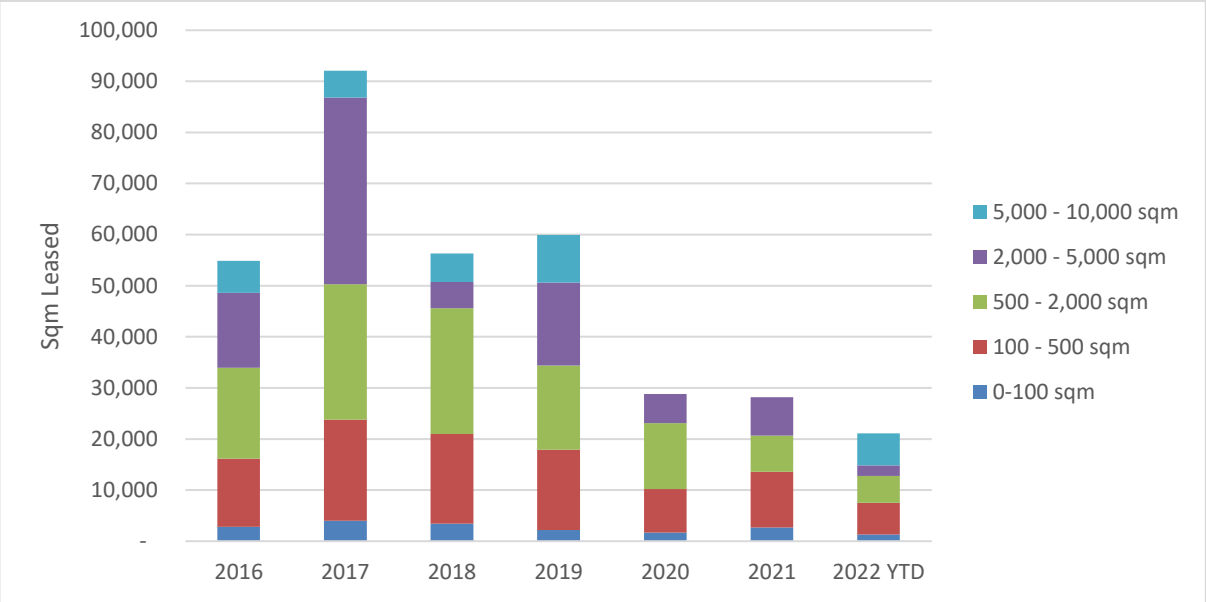
Demand by Size and Authority Area

5.2.19 The amount of leasing activity which has occurred in various size bands has been assessed to provide an indication of office demand by size band. Leasing activity differs from absorption in that it refers to the amount of space which is leased (i.e. signed for rather than physically moved in to). However, it should be kept in mind that leasing activity is constrained by the size of available stock.

5.2.20 Office leasing activity evidently fell significantly during the pandemic, in particular with no deals of over 5,000 sqm. These large deals have since returned (in 2022). Indeed leasing activity since 2020 has been notably weaker than in the years prior to this.

[9] Including existing stock and stock under construction

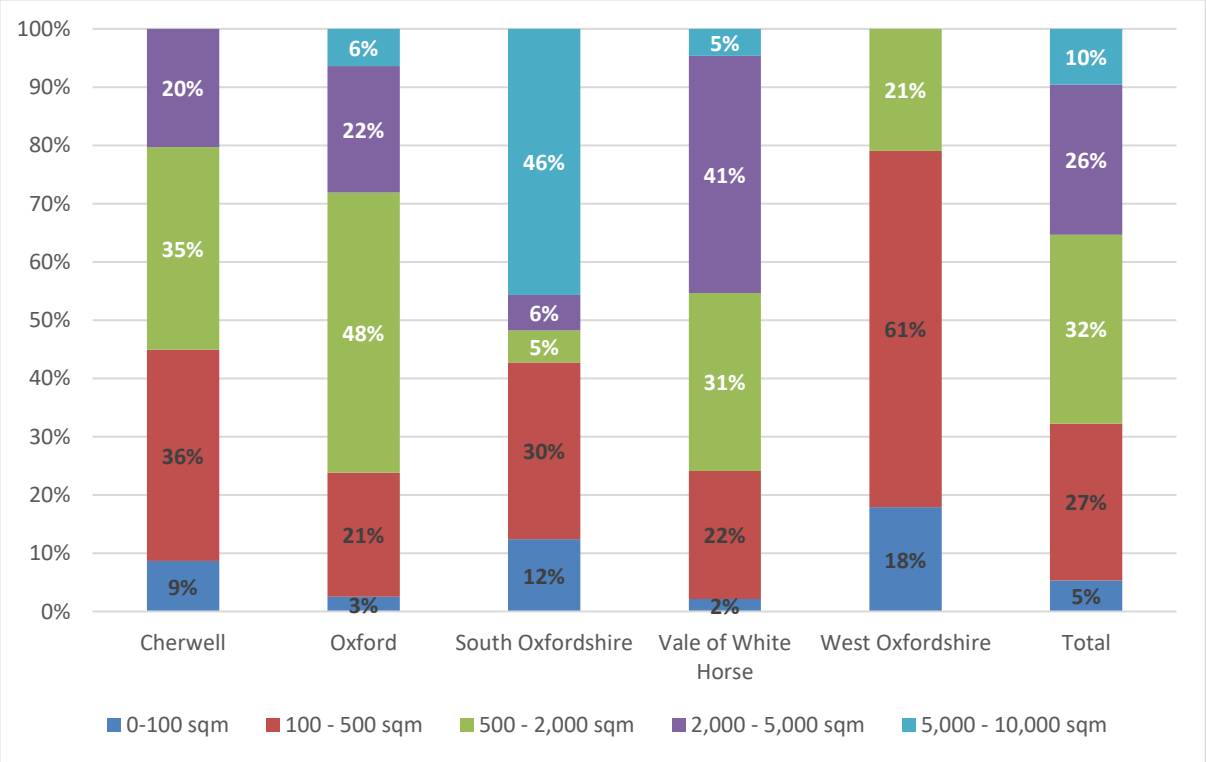
Figure 5.7: Leasing Activity by Size Band and Year, Oxfordshire



Source: Iceni analysis of CoStar data

5.2.21 The chart below shows the split of leasing activity by size band for each authority area and across Oxfordshire as a whole from 2016 onwards. There has been a relatively even split between the amount of floorspace leased in the middle three size bands with less at the extremes. West Oxfordshire is a prominent outlier in that 79% of floorspace leased was in deals of under 500 sqm.

Figure 5.8: Leasing Activity by Size Band, 2016-2022 YTD, Oxfordshire



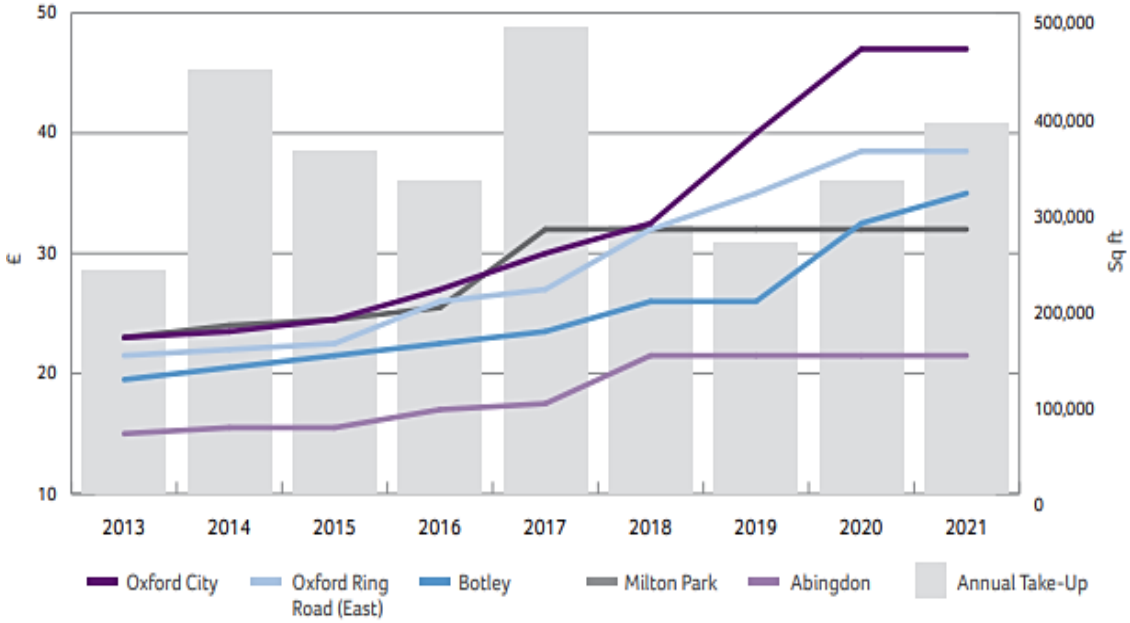
Source: Iceni analysis of CoStar data

5.2.22 The market is however seeing a number of larger corporate occupiers downsize, including Oxfam, British Gas, and a number of solicitors and accountancy firms, influenced by the shift towards more flexible working patterns. The mainstream market is therefore seeing a "flight to quality." VSL's 2021 Market Report identifies 4 major professional service occupiers that reduced their floorspace by 40-60% in 2021. This has driven a significant increase in the supply of office floorspace on the market, which increases 24% in 2021 to 796,000 sq.ft (VSL data).

Rental Trends

5.2.23 VSL's Market Report identified headline office rents in 2021 in Oxford City Centre of c. £47 psf; as against £38 psf on the Ring Road and £35 psf at Botley. Rents at Milton Park have been more steady at around £32 psf. Rents have been supported by a number of factors, including a low level of available supply in the City Centre; and the loss of stock to lab conversions.

Figure 5.9: Offices Rental Trend – Key Oxfordshire Markets



Source: VSL Oxfordshire Commercial Property Market Update 2021

5.2.24 Headline office rents for Grade A stock are reported now at between £50-55 per sq.ft for space in Oxford City Centre, and £30-40 psf for office space in more fringe/ periphery, based on our engagement with CBRE and wider market publications. Fitted lab space (< 10,000 sq.ft) is now achieving higher rents in the mid £60s. Market commentators expect office rental values to grow, with Bidwells Oxfordshire Market Databook (Summer 2022) expecting headline office rents to rise to £59.50 psf by 2026. However the wider economic backdrop is weakening at the time of writing.

Office market fundamentals in Oxfordshire remain stronger than in many locations, influenced by its focus towards life sciences and technology-focused businesses. There is a limited supply in Central Oxford; whilst around the ring road there is

greater availability with a pipeline of schemes coming forwards which will support market growth.

The core market is focused on Oxford and includes the City Centre and Science/ Technology Parks, and then stretching south to Harwell Campus and Milton Park in Didcot down the A34. In the short/medium-term, demand is considered likely to remain focused in these areas.

5.3 Labs Market

5.3.1 There is a strong market for laboratories, which includes both dry and wet labs, in Oxfordshire. This section should be considered a sub-set of the wider office market analysis. Underpinning the strength of the sub-region's commercial property market are:

- The close inter-relationship between the Universities and industry. Oxford University is ranked 1st of universities in the UK but also globally. It has a global brand but also significant **research depth**.

- This generates significant volumes of **spin-out companies** through successful commercialisation of academic innovation. Of spin outs from UK universities over the 1998-2008 decade analysed by GovGrant, the University of Oxford accounted for 16% ranking it No1 and generating a total value of £6.4 billion. Key spin outs include Oxford Nanopore Technologies (valued at £2.4 bln), NigthstaRx (£665m), Oxford Immunotec, Perspectum, Vaccitech, and Semmle. There is a particular focus on the life sciences sector.[10]

- Supporting this **entrepreneurial ecosystem** is Oxford Science Enterprises (OSE) which since its foundation in 2015 has invested £0.5 billion and provided access to start-up space and business support, focused on three high-growth sectors – life sciences, health tech and dept tech.

- A strong **investment market** with commercial investment volumes reaching £805 million in 2021, as reported by Savills, which included investment by Singaporean investor GIC at Oxford Science Park; and Brookfield Asset Management's acquisition of Arlington which included the Oxford Business Park.

- Inward investments which result from businesses' desire to co-locate with the world-class academic institutions.

5.3.2 In the lifesciences sector, OxBox, Oxford Biomedica's new 84,000 sq.ft facility opened in January 2021. Other recent completions include the Bellhouse Building at Oxford Science Park (30,000 sq.ft) and the Zeus Building at Harwell. The delivery of the Vaccines Manufacturing & Innovation Centre at Harwell has evolved and is now being built out by Catalent as a working factory capable of making a range of vaccines and therapeutics.[11] Oxford University also established the Ineos Oxford Institute of Antimicrobial Research (IOI) in January 2021 focusing on antimicrobial resistance. This will be based in the new 25,000 sqm Life and Mind Building (which is

[10] https://www.govgrant.co.uk/university-spinout-report/

[11] https://biologics.catalent.com/oxford/

under construction) once completed in 2023. Another notable deal was the Ellison Institute for Transformative Medicine's acquisition of Plot 18 at Oxford Science Park, announced in July 2022, connecting to the adjacent Littlemore House site which it acquired in 2021.

5.3.3 At Oxford Business Park, Brookfield is refurbishing second-hand space to attract science occupiers and looking at hybrid office/industrial development. It is also planning to bring forward 10 acres of consented land to deliver c. 750,000 sqft of office and lab space. Kadans has purchases the 75,000 sq.ft Quadrant scheme at Abingdon Science Park with the intention of enhancing the laboratory offer.

5.3.4 Strong recent demand has led to a position where lab space is in short supply at the start of 2022. VSL report unsatisfied demand for between 400,000 – 600,000 sq.ft. Savills estimate requirements for "a couple of million square feet from companies looking to get into the Oxford market."[12] Savills describe the situation as follows:

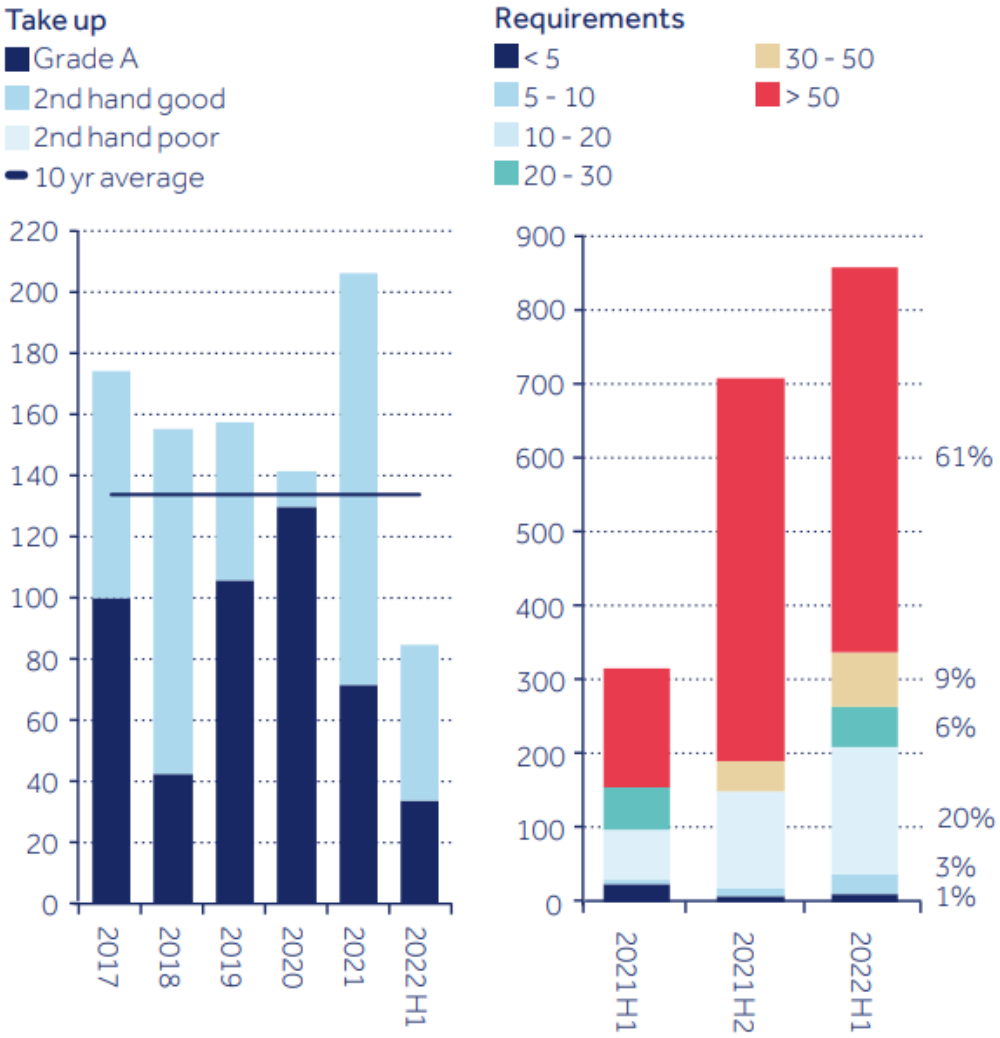
"What is clear, as seen in other markets across the UK, is the availability of Grade A office and laboratory space, which is severely limited in Oxford in the city centre and key ring road locations. The development pipeline for this year and 2023 is very low. The strength of the science sector, driven by the global reputation of the academic institutions, as well as the city's contribution to the global pandemic, has ensured the city is a top target location for companies, of all sizes, working within the many areas of human health."[13]

5.3.5 Bidwells' more recent Summer 2022 Databook identifies requirements for c. 860,000 sq.ft for labs space from 24 companies. Their analysis of take-up trends points to a 5 year average of c. 135,000 sq.ft (12,500 sq.m) annually, but indicates that this has been growing since the pandemic.

[12] Savills Spotlight: Oxford Offices and Laboratories, March 2022

[13] Savills Spotlight: Oxford Offices and Laboratories, March 2022

Figure 5.10: Laboratory Demand – Oxfordshire, June 2022



Source: Bidwells Offices and Labs Databook (Summer 2022)

5.3.6 The impacts of the energy crisis, inflationary pressures and weakening economic outlook have inevitably had some market impact. Bidwells report that venture capital funding is slowing, albeit reporting "*Q2 2022 funding still exceeded every quarterly funding level recorded in 2020. Whilst both late stage (down 38% year on year) and early stage funding (down 18% year on year) tightened, seed finance bucked the trend, growing by 9% over the comparable Q2 2021 figure. Office and lab demand in Oxford remains driven in large part by high growth VC funded companies*." Whilst there is thus some evidence of funding slowing; trends in spin-out companies appear to be accelerating and some companies have been growing very rapidly.

5.3.7 Headline rents track office rents. Much of the lab space in the Oxford market is outside the City Centre, but laboratory-enabled buildings command a premium rent akin to that in the City Centre. Over time, Savills expect rents for lab space to exceed those in Oxford City Centre. Lab-enabled buildings at Milton Park have reached a rent of £35 psf.

5.3.8 For fully-fitted labs, rental cost are around £65 psf currently; and Bidwells forecast that these can be expected to rise significantly over the next few years to reach £72.50 in 2027.

5.4 Key Development Sites

5.4.1 Key development sites for the office/lab market include:

- **Oxford Business Park** – located on the south-eastern side of the City in Cowley, the business park is home to a range of high-tech businesses. There are two large office/lab spaces of over 1,500 sq.m each (available short-term) and four plots available for development[14] providing collectively 10.5 acres (4.3 ha).

- **Oxford Science Park** – an existing established science park, with a particular concentration of lifescience and technology companies, there is potential for over 300,000 sq.ft of further development space. There are 6 identified plots of land currently available for development with potential to provide 44,300 sq.m.

- **Oxford North** – hybrid planning permission was granted for a mixed use scheme on this site in 2021[15] including provision for up to 87,300 sq.m of E(g) space. The first phase of development is expected to deliver 15,793 sq.m (170,000 sq.ft) of laboratory and office space in three buildings including flexible office space, and two office/dry lab buildings of 55,000 sq.ft each.[16]

- **Begbrooke Science Park** – An established science park which provides an environment that helps innovative science & technology businesses through the difficult early stages of growth by providing a range of flexible property offers. The park is home to a mix of start-ups, spinouts, growing technology companies, R&D groups from larger international businesses (around 30 overall), and University research groups (around 20). The science park offers a countryside setting with sustainable transport links and easy access, together with a mix of listed buildings alongside modern labs and office space. Oxford University Development Ltd recently received permission for a further 12,500 sqm of new lab and office space, doubling the existing offer. One of the two new buildings will be used by University research groups with the other leased to innovative private companies. In the longer term the University hopes to transform the wider area around the Science Park into a world-leading innovation district, including housing, schools, communal facilities, green spaces and sustainable transport links.

- **Abingdon Science Park** – Located in the heart of the 'Science Vale', Abingdon Science Park contains approximately 75,000 sqft of office and laboratory space anchored by Oxford University and also including a world-leading cancer gene therapy company and data science firms. Kadans Science Partner, the owners of the park, have secured planning permission for a new, purpose-built laboratory and office building at the park (around 20,000 sqft). The scheme also brings forward communal and café space to the park.

- **Harwell Campus** - Harwell is a leading UK science and innovation campus. There are plans in place to deliver in excess of 1.5m sqft of cutting-edge labs, office and

[14] Plot 1 (3.35 acres); Plot 2 (1.39 acres); Plot 3 (2.79 acres); and Plot 4 (3.01 acres), as at Sept 2022

[15] It is being brought forward through a JV between Thomas White Oxford, Cadillac Fairview and developer Stanhope on land close to the junction of the A40 and A34

[16] https://www.oxfordnorth.com/offices/

advanced manufacturing space alongside 3.5m sqft of new hotel, conference centre, homes and amenities by 2027.

- **Milton Park, Didcot** – The UK's largest single ownership business community with business, science and technology space for 250 companies and over 9,000 people. By 2040 the park aims to create flexible laboratory space to accommodate 10,000 new jobs along with new amenities and a 24/7 sustainable transport hub.

- **Oxford Technology Park** – A permitted 400,000 sqft technology park office, R&D and 'high-technology' business space to let, starting from 5,000 sqft and going up to 49,000 sqft. The site contains a mix of unit sizes and offers high levels of flexibility to occupiers. The park will also have an on-site hotel and restaurant. The lab-enabled 'Building One' of 34,000 sqft is now complete and will be occupied by TNAC, one of the world's leading suppliers of high-quality reagents for infectious diseases.

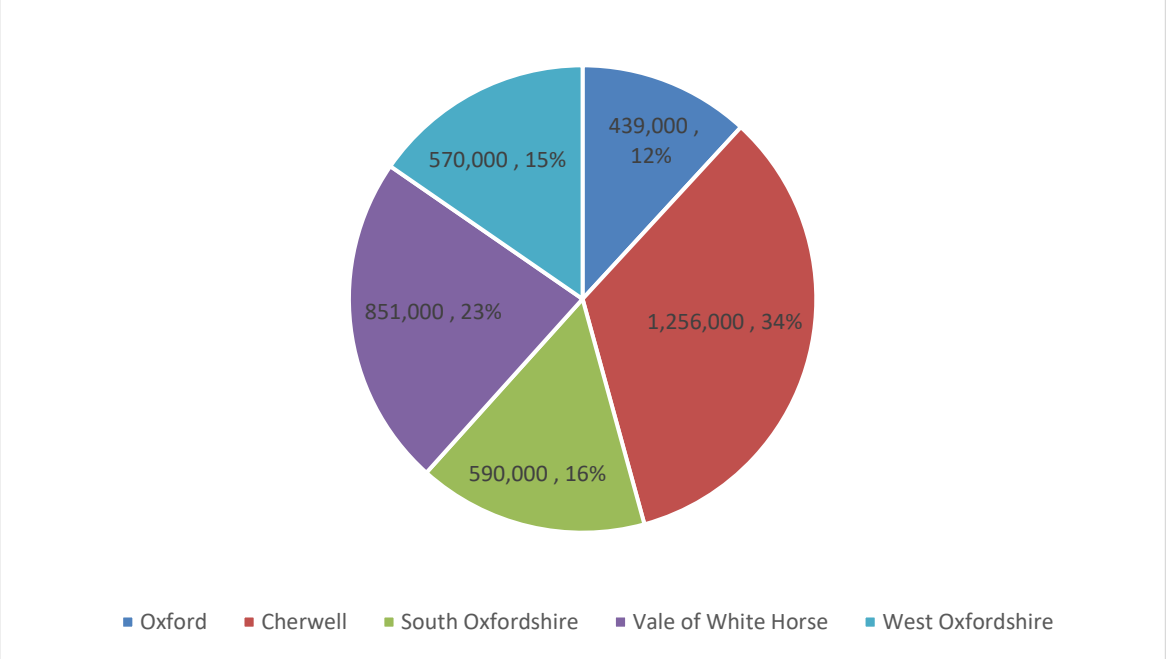
6 Industrial Market Review

6.1 Industrial Stock

6.1.1 The VOA[17] provides information on the amount of industrial floorspace by administrative area. In Oxfordshire at the end of FY 2020/21, there was 3,706,000 sqm of industrial floorspace in total accounting for 10% of the South East's stock. Figure 6.1 breaks this down by local authority area.

6.1.2 Cherwell has the largest share of Oxfordshire's industrial market but each authority has a significant proportion of stock.

Figure 6.1 Industrial Floorspace (End FY 2020/21) by Local Authority



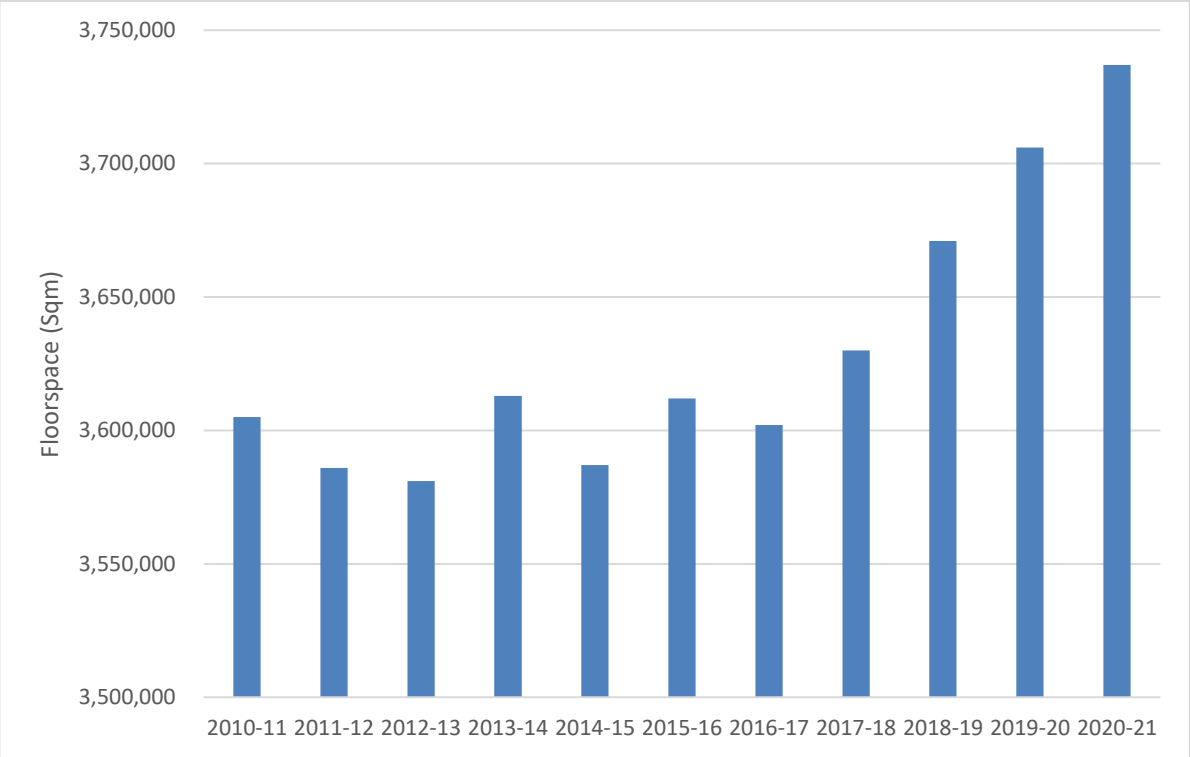
Source: Iceni analysis of VOA data

6.1.3 Co-star suggests that Oxfordshire had around 4,039,770 sqm of industrial floorspace at the end of FY 2020/21 which is 9% higher than the VOA data suggests. This difference is due to a number of reasons including that the definition of office space used by CoStar differs to that used by the VOA and the fact that data is collected in a different manner by each organisation.

6.1.4 Figure 6.2 shows the amount of industrial floorspace in Oxfordshire between 2010/11 and 2020/21. It can be seen that the amount of floorspace remained relatively constant between 2010/11 and 2016/17 before a sharp rise to a peak in the latest year for which data is available 2020/21. This has been driven by industrial development in Cherwell.

17 VOA: Non-domestic rating: stock of properties including business floorspace, 2021

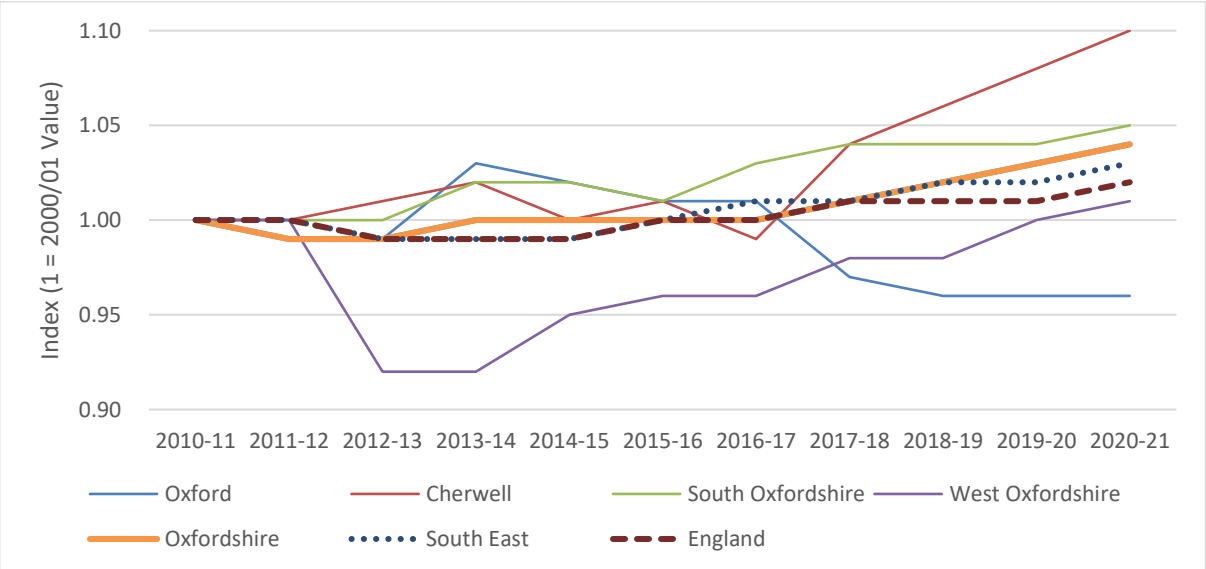
Figure 6.2 Industrial Floorspace (2000/01 – 2020/21)



Source: Iceni analysis of VOA data

6.1.5 Figure 6.3 shows how the amount of industrial floorspace has changed in each local authority and Oxfordshire as a whole relative to the region and England. It can be seen that Cherwell and South Oxfordshire's industrial markets grew at a faster rate than the South East and England. West Oxfordshire's industrial market has seen little overall change despite a decline between 2010/11 and 2012/13. The only authority to lose industrial space was Oxford.

Figure 6.3 Indexed Office Floorspace Change (2010/11 – 2020/21)



Source: Iceni analysis of VOA data

6.1.6 Table 6.1 shows the split of Oxfordshire's industrial floorspace by quality (in terms of CoStar star rating). It can be seen that over a third of floorspace is 3-star rated, with 23% 1-2 star and just 10% 4-5 star. Cherwell and the Vale of White Horse have the highest percentages of 4-5 star floorspace whilst Oxford, South Oxfordshire and West Oxfordshire have very little of this high quality floorspace. However, Oxford has a very low percentage of 1-2 star floorspace.

Table 6.1 Industrial Floorspace by CoStar Grade, 2022

	Stock Grade				
	1	2	3	4	5
Cherwell	1%	26%	57%	15%	2%
Oxford	1%	7%	90%	1%	0%
South Oxfordshire	1%	28%	67%	3%	0%
Vale of White Horse	1%	18%	69%	13%	0%
West Oxfordshire	2%	34%	61%	3%	0%
Grand Total	1%	22%	67%	9%	1%

Source: Iceni analysis of CoStar data

6.1.7 Table 6.2 shows the split of Oxfordshire's industrial floorspace by age (built or renovated – the later of the two). It can be seen that 57% of Oxfordshire's industrial floorspace was built before the year 2000.

6.1.8 Cherwell and the Vale of White Horse have the highest percentages of the most modern floorspace (built/renovated from 2010 onwards). Whilst Oxford has very little floorspace built/renovated from 2010 onwards, nearly half of its floorspace has been built from 2000 onwards. South Oxfordshire and, to a lesser extent, West Oxfordshire have the highest percentages of stock built pre-2000.

Table 6.2 Age of Industrial Floorspace

	Pre 1940	1940-1979	1980-1999	2000-2009	2010-2019	2020-2022
Cherwell	2%	21%	30%	15%	25%	7%
Oxford	1%	23%	29%	45%	3%	0%
South Oxfordshire	2%	24%	47%	14%	8%	5%
Vale of White Horse	1%	16%	32%	19%	22%	9%
West Oxfordshire	1%	22%	42%	16%	12%	7%
Grand Total	2%	21%	34%	21%	17%	6%

Source: Iceni analysis of CoStar data

6.1.9 Table 6.3 below at the scale and spatial distribution of strategic B8 units (units over 9,000 sq.m in size). It can be seen that the majority of strategic B8 units are in Cherwell with the District accounting for 55% of the total. However, the figures for Cherwell are more modest than those for instance in West Northamptonshire reflecting the stronger market for space on the M1 relative to the M40.

Table 6.3 Profile of Strategic B8 Floorspace by Area

	sq.m	% Total
Cherwell	481,226	55%
Oxford	73,313	8%
South Oxfordshire	81,123	9%
Vale of White Horse	198,100	23%
West Oxfordshire	45,122	5%
Oxfordshire	878,883	100%

Source: Iceni analysis of CoStar data

6.1.10 The table below looks at the age of strategic B8 floorspace across Oxfordshire. It shows that the majority of floorspace was built from 2000 onwards. This points to a relatively low level of 'replacement demand' arising and could moderate future development needs.

Table 6.4 Age of Strategic B8 Floorspace

	Units	Floorspace sq.m	% Floorspace
Pre 1980	5	60,993	7%
1980-89	11	157,141	18%
1990-99	8	149,735	17%
2000-09	7	155,656	18%
2010-19	12	206,627	24%
2020+	6	148,731	17%
Total	49	878,883	100%

Source: Iceni analysis of CoStar data

6.1.11 Demand for large-scale warehousing and logistics space has increased notably over recent years, driven in particular by the growth in e-commerce, increased stock holding requirements and the need for modern warehousing space with sufficient power capacity (to support automation and increasing moving forwards electric vehicles) and appropriate sustainability credentials. We have also seen growth in demand for last mile logistics, including cross-docking facilities at the edge of urban areas where consignments are reloaded from HGVs to LGVs for final mile delivery.

6.1.12 For warehouse development, the employment land forecasts in this report are based on historical completions trends.

Overall, Oxfordshire's industrial market is significantly sized and has seen some growth over the last 10 years, driven by growth in Cherwell and South Oxfordshire. In general, Oxfordshire's industrial floorspace is of a middling quality and around 67% of the area's industrial floorspace was built before the year 2000.

Oxfordshire has relatively modern strategic B8 stock which is predominantly located in Cherwell.

6.2 Industrial Market

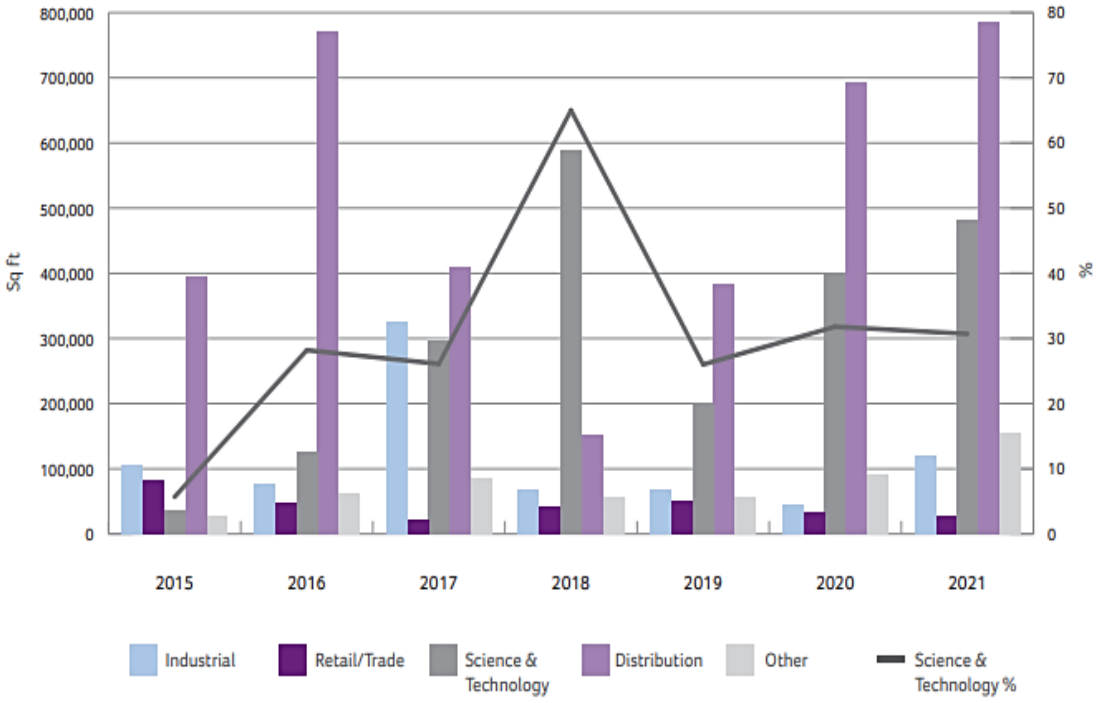
6.2.1 The last couple of years has witnessed record take-up of industrial property, with VSL recording record take-up of 1,573,083 sq.ft in 2021 – a 24% uplift on the level in 2020 which itself surpassed previous records. As a result the level of available supply has been diminishing and is approaching all-time lows.

6.2.2 In the Oxfordshire market, key drivers of demand include logistics/distribution, which VSL report accounted for 50% of take-up in 2021; as well as science and technology (31%). The latter accounted for 482,200 sq.ft of space in 2021.

VSL's analysis of take-up by sector is shown in Figures 6.4 and 6.5. This shows that:

- For Oxfordshire's industrial market, logistics/distribution and science and technology are key drivers of overall demand for industrial space;
- There is a notable upward trend in the take-up in both of these areas in recent years, with the growth of e-retailing and increased stock-holding requirements driving demand for warehouse space and investment and growth in life sciences underpinning science & technology. Demand from more traditional industrial/manufacturing businesses is more modest.

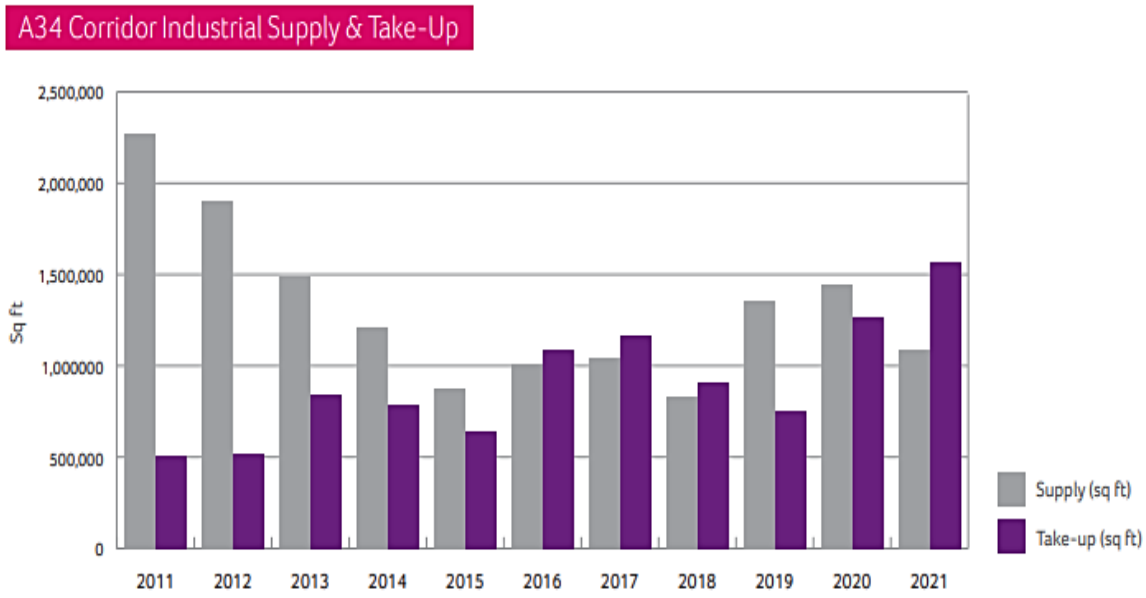
Figure 6.4 Industrial Take-up by Sector – Oxfordshire



Source: VSL Oxfordshire Commercial Property Market Update 2021

6.2.3 The aggregate take-up across sectors shows a notable upturn in 2020 and 2021 in particular. Speculatively development schemes have been brought forward at Banbury, Bicester, Witney and Didcot.

Figure 6.5 Industrial Take-up and Supply – Oxfordshire



Source: VSL Oxfordshire Commercial Property Market Update 2021

6.2.4 VSL report that the pace of take-up of new-build space has led to a shortage of good quality available space which will continue through 2022. They report 1.1m sq.ft of available industrial space, which is less than 1 years' supply based on recent take-up. This could support further rental growth (depending on wider economic circumstances).

6.2.5 In terms of the supply of land, CBRE suggest that opportunities are drying up which is exacerbated by the relative strength of the life sciences market and crucially power supply constraints. They note that the most suitable land supply is likely to be around Didcot and Bicester around the M40.

Net Absorption and Vacancy Trends

6.2.6 CoStar provides data on net absorption and net deliveries. Net absorption is the balance between the amount of space moved into and moved out of (i.e. net absorption = move ins – move outs). It provides an indicator of the strength of demand. Net deliveries are the difference between floorspace delivered (i.e. constructed and brought onto the market) and demolished (or otherwise taken out of use and removed from the market). When net absorption is greater than net delivery this leads to a falling vacancy rate and vice versa.

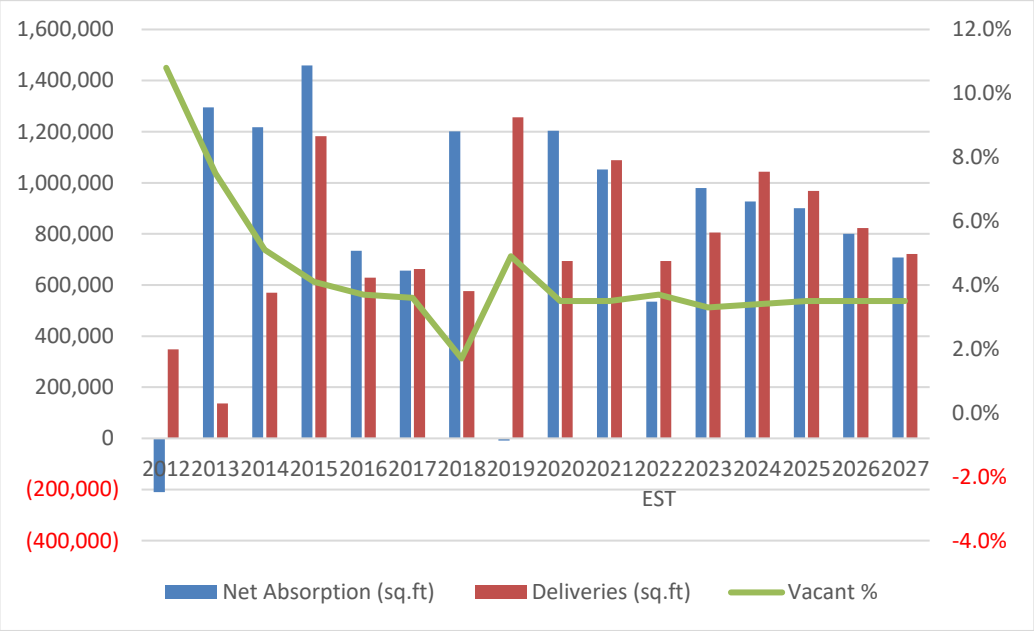
6.2.7 Figure 6.6 below shows net absorption, net deliveries and their resulting impact on vacancy rates across Oxfordshire. It can be seen that vacancy rates fell from around 11% in 2012 to around 2% in 2018, driven by strong net absorption which was not matched by deliveries (particularly in 2013, 2014 and 2018). By the end of 2019, the vacancy rate grew to around 5% due to a year without net absorption and record levels of delivery.

6.2.8 2020 saw strong net absorption (matching national trends of high demand, particularly from the logistics sector) with less but still decent levels of delivery. This caused a slight decline in the vacancy rate. 2021 saw similarly strong levels of net absorption and deliveries.

6.2.9 2022 is forecast to see a slightly increased vacancy rate driven by strong deliveries and lower net absorption. This is mainly driven by strong levels of delivery in Q2. The current vacancy rate is 4.1% which is forecast to increase slightly to 4.2% by the end of the year. This is a low vacancy rate which suggests a strong demand for industrial space relative to supply and a constrained market.

6.2.10 From here, the vacancy rate is forecast to fall slightly to 3.4% due to strong forecast net absorption in 2023, before settling at 3.5% up to 2026. This suggests that the demand could continue to outweigh supply in the medium term meaning the market will remain constrained.

Figure 6.6 Net Absorption, Net Deliveries and Vacancy Rates, Oxfordshire



Source: CoStar

Vacancy and Availability by Authority Area

6.2.11 Table 6.5 below sets out vacancy rates by local authority. It can be seen that Cherwell and Oxford have the lowest vacancy rates suggesting there is particularly strong demand relative to supply in these areas. On the other hand, the Vale of White Horse and West Oxfordshire have higher vacancy rates suggesting there is less imperative to improve supply at present in these areas.

Table 6.5 Vacancy Rate by Authority Area

Authority Area	Vacancy Rate
Cherwell	2.9%
Oxford	2.2%
South Oxfordshire	3.9%
Vale of White Horse	6.3%
West Oxfordshire	7.3%
Overall	4.1%

Source: CoStar

6.2.12 Table 6.6 summarises current levels of availability across Oxfordshire and its constituent authorities recorded on CoStar, taking into account existing floorspace and floorspace which is under construction. The evidence points to:

- Oxford having the most available industrial space, the vast majority of which is between 500 and 2,000 sqm in size.
- The Vale of White Horse and West Oxfordshire has the least available floorspace.

It can be seen that over half of available floorspace is in the 500 – 2,000 sqm size band.

Table 6.6 Availability by Authority Area, October 2022[18]

	0-100 sqm	100 - 500 sqm	500 - 2,000 sqm	2,000 - 5,000 sqm	5,000 - 10,000 sqm	10,000+ sqm	Grand Total
Cherwell	99	13,766	47,851	10,495		31,903	104,113
Oxford	73	5,816	121,709			11,148	138,747
South Oxon	921	13,815	21,612	16,071	7,831		60,250
Vale of White Horse	700	7,560	32,002	4,693		32,137	77,093
West Oxon	2,856	11,302	20,951	37,686	6,875	11,619	91,288
Grand Total	4,650	52,259	244,124	68,945	14,706	86,807	471,491

Source: Iceni analysis of CoStar data

6.2.13 Cherwell and the Vale of White Horse have the most 10,000 sqm plus floorspace available. This includes 20,000 sqm of existing space at Frontier Park.

[18] Including existing stock, stock which is in 'final planning' and will start construction in the next 12 months and stock under construction.

Demand by Size and Authority

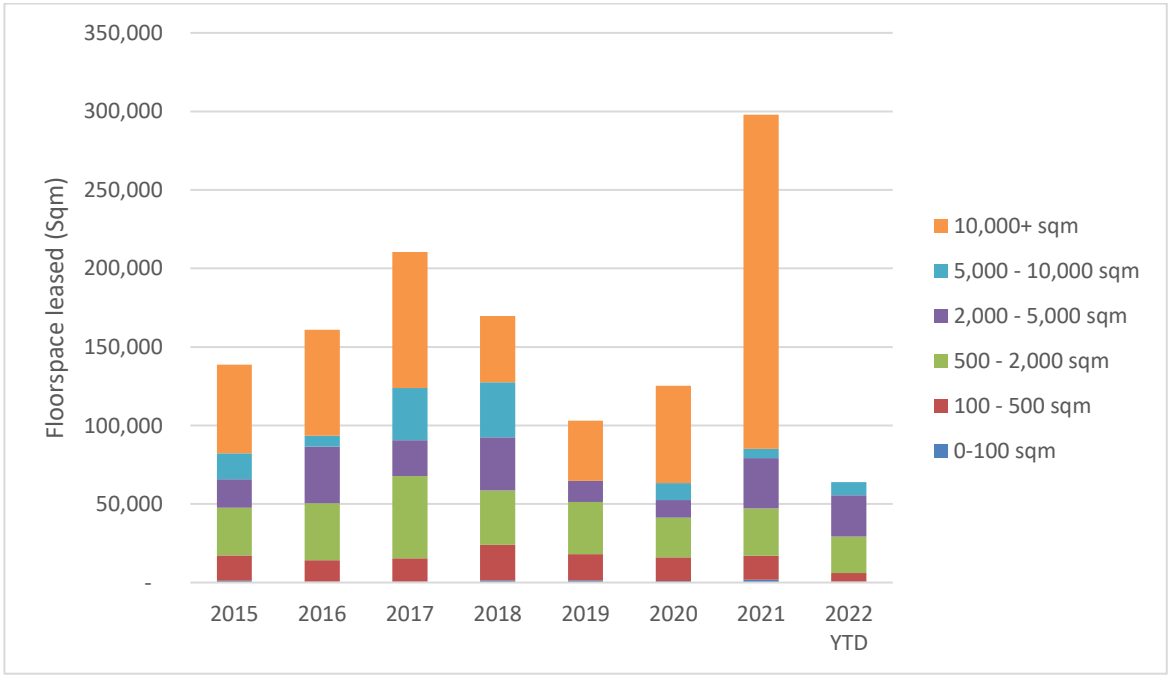
6.2.14 The amount of leasing activity which has occurred in various size bands has been assessed to provide an indication of industrial demand by size band. Leasing activity differs from absorption in that it refers to the amount of space which is leased (i.e. signed for rather than physically moved in to). However, it should be kept in mind that leasing activity is constrained by the size of available stock.

6.2.15 As can be seen in the figure below, industrial leasing activity across Oxfordshire spiked in 2021 in line with nationwide demand for industrial (particularly logistics) floorspace during the pandemic. This was particularly driven by leasing of 'big box' space (over 10,000 sqm in size), most of which was by large-scale logistics operators (including 65,000 and 28,000 sqm leases by DHL at Axis J10 in Bicester, a 41,873 sqm lease by Asda at Sutton Courtenay Road in Abingdon, and 19,000 sqm by Amazon at Southam Road in Banbury).

6.2.16 DTRE suggest that the M40 corridor has historically been second favourite to the M1 in terms of big box space However there is potential for the M40's role to develop over time. DTRE believe that historically lower take-up around the M40 may be because there are a limited number of sites which can come forward quickly, as well as less speculative development.

6.2.17 The graph at Figure 6.7 below also shows a consistent take-up of smaller space. This is backed up by DTRE who suggest that there is a strong market from smaller occupiers and for trade counter space in Oxfordshire. CBRE also noted a strong demand from trade counter operators.

Figure 6.7 Leasing Activity by Size Band and Year, Oxfordshire



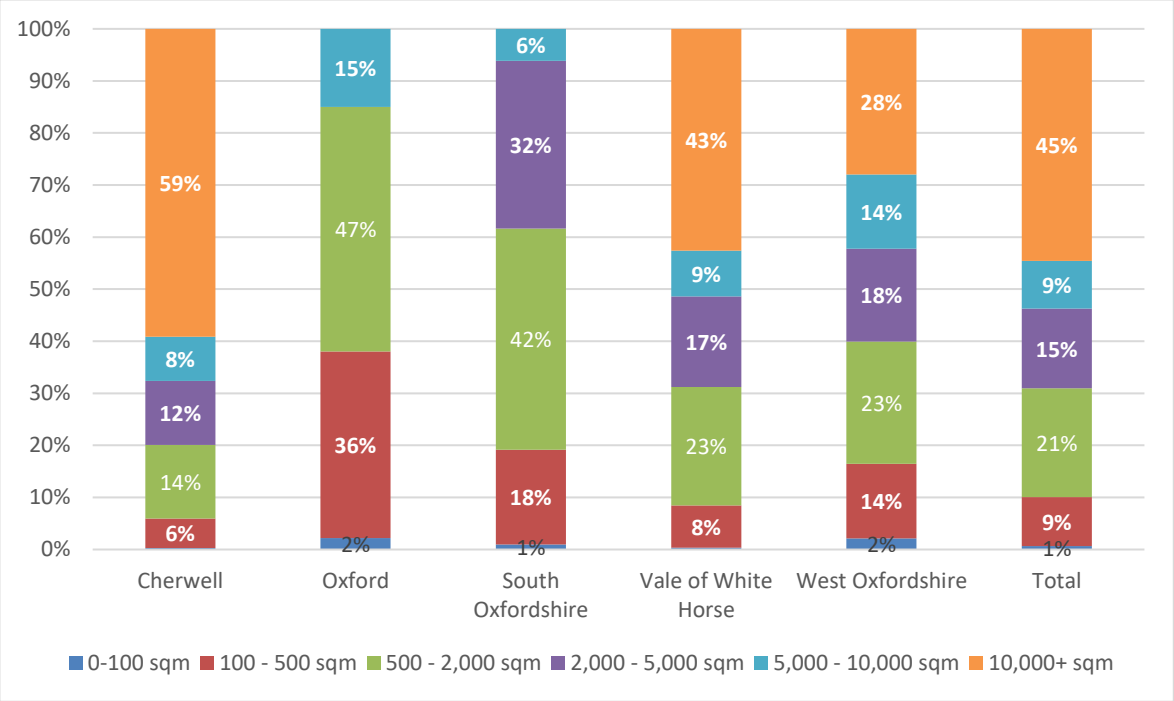
Source: Iceni analysis of CoStar data

6.2.18 Figure 6.8 below shows the split of leasing activity by size band for each authority area and across Oxfordshire as a whole from 2015 onwards. It can be seen that 45% of leasing activity across Oxfordshire is for space over 10,000 sqm (again

most of which is for strategic logistics). There is a relatively even split of floorspace leased in deals of less than 10,000 sqm.

6.2.19 It can be seen that when compared to Oxfordshire as a whole, Cherwell has a larger proportion of leasing of greater than 10,000 sqm. This is backed up by DTRE who suggest that the logistics market is currently focussed on Bicester and Banbury. On the other hand Oxford and South Oxfordshire have no leasing of greater than 10,000 sqm which are characterised by a prominence of small to mid-sized leases.

Figure 6.8 Leasing Activity by Size Band, 2016-2022 YTD, Oxfordshire

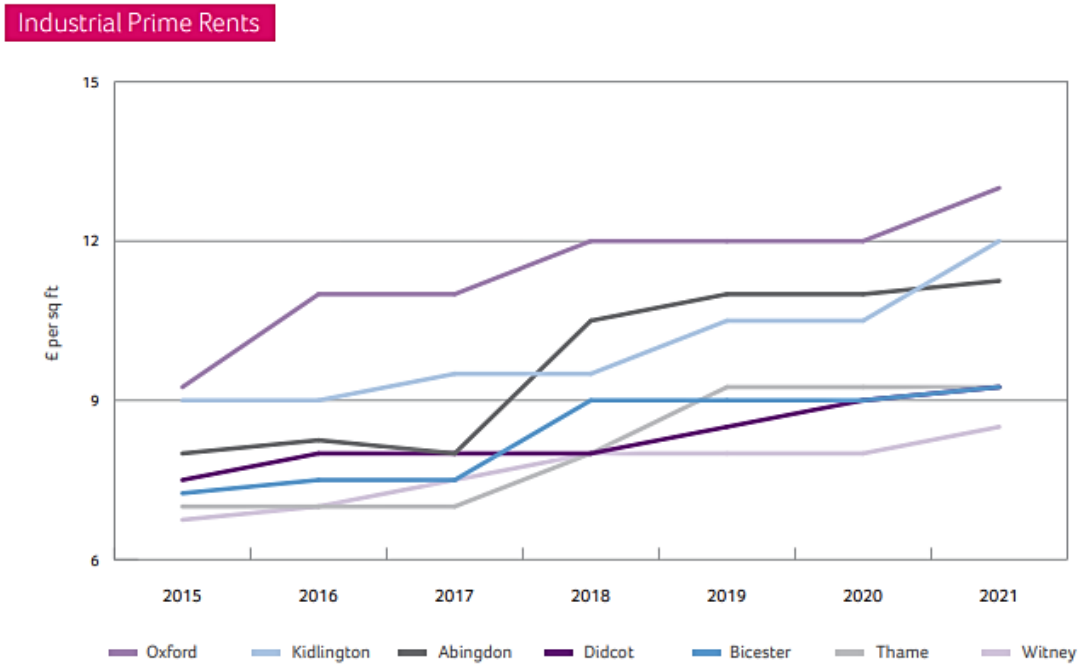


Source: Iceni analysis of CoStar data

Rental Trends

6.2.20 The strength of demand has however seen rental growth across all markets, with particularly strong growth in prime rents for industrial space in Oxford and Kidlington over the period since 2017. Prime rents in Oxford are highest, at £13 psf. Overall the rental evidence points to stronger demand for space in locations along the A34 and M40 Corridors; with lower rents away from this such as at Witney.

Figure 6.9 Prime Industrial Rents – Oxfordshire

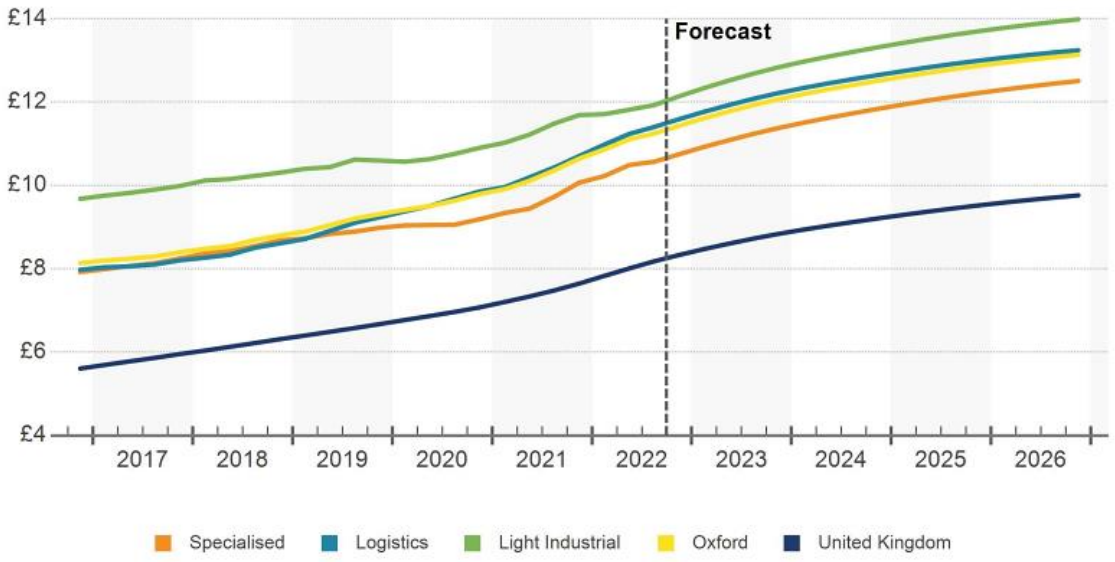


Source: VSL Oxfordshire Commercial Property Market Update 2021

6.2.21 Building cost inflation plus the shortage of supply have combined to drive growth in industrial rents; and with diminishing supply there are evidently prospects of further rental growth.

6.2.22 CoStar suggests that average industrial rents are £11.25 psf across Oxfordshire. Light industrial rents come in higher at around £12 psf whilst specialised industrial rents are less than £11. Logistics rents sit very slightly above the overall average and, since mid-2019, have been growing faster than other types of industrial space. Despite logistics rents sitting around the overall average, big box rents are the highest at £12.15 psf.

Figure 6.10 Average Industrial Rents, Oxfordshire (psf)



Source: CoStar

Oxfordshire's industrial market has seen high demand and diminishing floorspace and land supply in recent years. This demand is driven by the logistics and the science and tech sectors.
These conditions have driven strong rental growth, particularly in the logistics sector. Rental price evidence points to stronger demand along the A34 and M40 corridors.
Vacancy rates are already low and are forecast to decline in the medium term suggesting high demand and low levels of supply will continue. Floorspace supply is most constrained in Cherwell, Oxford and South Oxfordshire.

6.3 Mid-tech Space

6.3.1 A key trend has been growing demand for what we would term 'mid tech space' for science/technology-focused occupiers, which is suitable and can accommodation R&D, office, lab, clean room and light engineering/production space. This type of space has been brought forward in the Zeus Building at Harwell Campus; with VSL reporting a wider programme of development of space at Bicester, Kidlington, Harwell and Milton Park during 2022.

6.3.2 CBRE suggest that this type of space may be pushed out to the margins due to land prices for core life sciences space. DTRE believe that expected levels of demand for mid tech space have not yet materialised but that they are likely to do so soon with a big shift towards this type of space.

6.4 Key Development Sites

6.4.1 Key development sites for industrial space include:

- Signia Park, Didcot – part of the former 'Power Station B' site. 120 acre site which was formally the coal yard for Didcot 'A' Power Station. A first phase development was of a 242,066 sq.ft warehouse unit which was pre-let to publishing company Hachette UK. The remaining 100 acre park is ready for construction with development potential for around 1.5 million sq.ft for B2/B8 use. It is being brought forward by Graftongate with the masterplan showing principally big box units of greater than 150,000 sq.ft. There is currently a 94,000 sqft data centre under construction in the south west of the site which is due for completion in 2022.

- Frontier Park, Banbury – located alongside the M40 at Banbury, two units are under construction on a speculative basis, available Q2 2022, these being FP217 (217,461 sq.ft) an FP130 (13,400 sq.ft), with a further plot available which can accommodate 165,000 sq.ft.[19]

- Axis J9, Bicester – a development by Albion Land, the development provides a total of 500,000 sqft of new commercial buildings all of which is now built (the last unit was delivered in 2021). The space ranges from 7,000 to 160,000 sqft units.

- Catalyst Bicester – located just off the A41, close to the Graven Hill development, this scheme is being brought forward by Albion Land. A phase 1 development of 4 buildings has been completed; with Building 4 available (21,520 sq.ft). Phase 2 (5

[19] http://frontierpark.com/banbury/

buildings) providing 121,734 sq.ft of floorspace un units of between 18,000 – 30,000 sq.ft is due to be completed by Autumn 2023. A third phase of development is then expected to follow.[20]

- Tungsten Park, Whitney – In Witney, Tungsten Park has proved popular. Improvements to the A40 will support demand for industrial space.

There have been a number of recent planning applications for further industrial/ logistics schemes, particularly focused at M40 Junctions.

[20] Catalystbicester.com

PART B: Reviewing and Refreshing Oxfordshire's Growth Scenarios

7 Reviewing and Updating the Oxfordshire Growth Scenarios

7.1 Summary of the 2021 OGNA Scenarios

7.1.1 For the 2021 OGNA, four growth scenarios were devised, two based on demographic projections with upward adjustments for affordability (in line with the standard method set out in Planning Practice Guidance) and two based on scenarios for employment growth. The objective of the scenarios was to determine the level of housing and job provision that each one could support, in order to assess which of the scenarios would best meet Oxfordshire's growth needs. The approach was based on the evidence within the report showing that Oxfordshire's economic dynamism was a key driver of housing need.

7.1.2 For the demographic-led scenarios, a fixed level of housing provision is identified by taking demographic growth and applying adjustments to support improved housing affordability (using the framework of the standard method). A series of calculations follow to identify what that level of housing provision could look like in terms of labour market effects, commuting and sustainability effects, as well as potential housing market effects.

7.1.3 The employment-led scenarios start out with an assessment of future employment growth. These scenarios then consider what a particular level of employment provision would demand in terms of housing, based on certain labour supply assumptions. The scenario outputs can then similarly be analysed for housing market, commuting and sustainability effects. The two scenario types are represented by the graphic at Figure 7.1. Each stage of the scenarios is set out in Table 7.1.

Figure 7:1 Visualisation of two scenario types

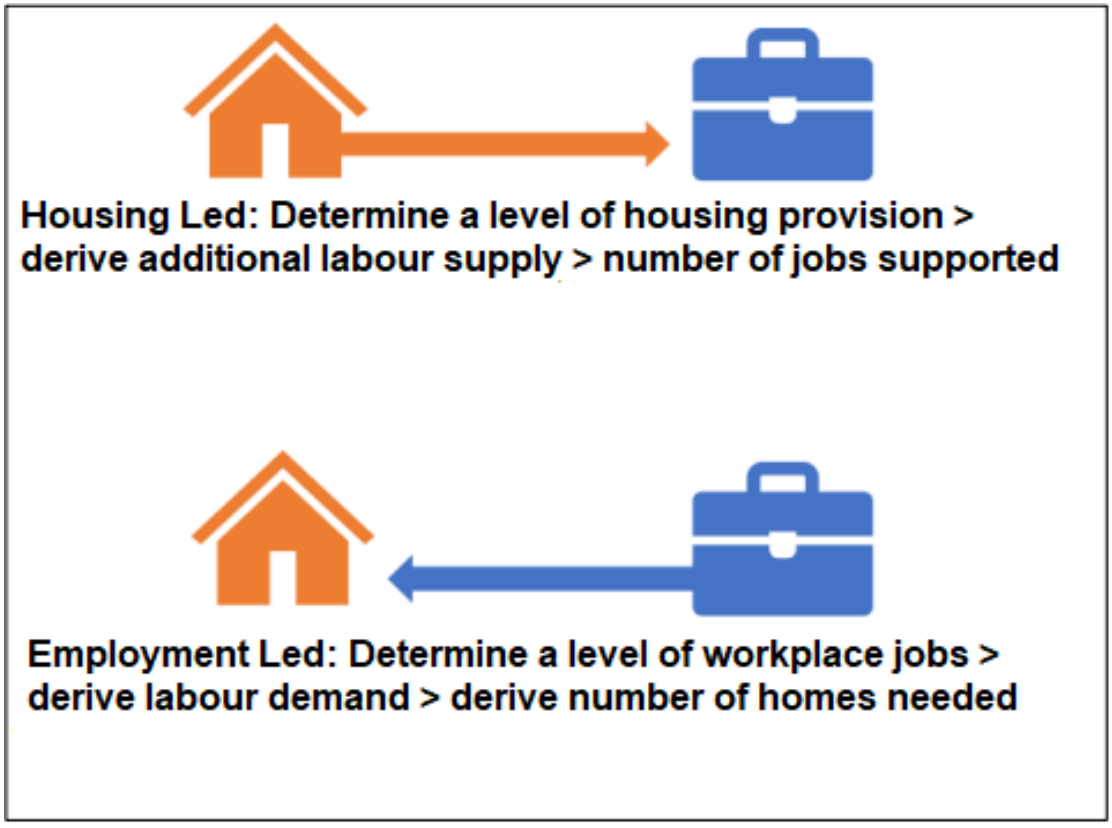


Table 7.1: Summary of Scenario Stages

	Housing-led Scenarios	Employment-led Scenarios
Set Level of Housing or Employment	Start from housing provision based on demographic growth, uplifted using housing affordability ratio	Take a fixed level of *workplace* employment
Ratio	Derive population	Derive number of workers
Ratio	Derive number of resident workers	Set target level of commuting
Output	Determine deficit/surplus of workers relative to employment demand	Determine number of workers to be housed locally
Output	Derive labour demand	Derive dwelling demand
Output	Derive commuting results, assess sustainability effects	Derive commuting results, assess sustainability effects
Output	Derive labour / housing demand: assess housing market effects	Derive labour / housing demand: assess housing market effects

7.1.4 The rationale for this approach was to assess housing need from different perspectives, capturing influences from demographic trends, market signals and the affordability position as well as economic performance. These provide two different contexts with which to assess and draw conclusions on housing need, the first being that of population dynamics and market signals; and the second being that of labour market dynamic, each equally valid as a starting point for assessing housing need.

7.1.5 While NPPF guidance suggests that the standard method is used as a starting point for determining housing need, the same guidance recognises that economic factors can be taken into consideration when assessing need, and strong economic performance and a buoyant labour market were assessed as a key driver of Oxfordshire's housing market in the 2021 OGNA report.[21]

7.1.6 In particular, that report identified how employment growth had been running ahead of housing delivery in Oxfordshire resulting in a growing surplus of workforce workers over resident workers and growth in net commuting into Oxfordshire and deteriorating housing affordability resulting from the associated supply/demand imbalance. It pointed to strong demand for housing as workers sought to live locally to their employment. As such, it was considered relevant and appropriate, in an Oxfordshire-specific context, to continue the approach of assessing need from both economic and demographic standpoints.

7.1.7 A summary of the housing need figures generated in the 2021 OGNA scenarios are shown in table 7.2.

Table 7.2: 2021 OGNA Scenarios - Housing need results

	Change in households, 2020-50	Change in households p.a., 2020-50	Local housing need (dwellings) p.a., 2020-50
Standard Method (adjusted) economic trajectory	98,592	3,286	**3,386**

[21] Section 11.5, Oxfordshire Growth Needs Assessment – Phase 1 Report,

Business as usual economic trajectory	119,807	3,994	**4,113**
Transformational economic trajectory	148,329	4,944	**5,093**

Source: ONS, Justin Gardner Consulting, Iceni Projects, 2021 OGNA Phase 1 Report.

7.2 Reviewing the 2021 OGNA Scenarios

7.2.1 Careful consideration was given to how the scenarios would be updated for 2022. Three key questions were asked to achieve this:

- Is the general approach, assessing housing need in the context of both demographic- and economic-driven estimates, still appropriate?
- Are the specifications of each scenario still appropriate, particularly in the context of feedback and representations received in relation to the 2021 OGNA report?
- What updates can be made to the scenarios?

7.2.2 Firstly, it was considered that the original method of using demographic/ standard method-led and employment led scenarios remained a valid and appropriate approach. Population change remains the basis of the standard method calculation that should be used to establish the baseline level of area's housing need (with Planning Practice Guidance indicating that the standard method calculation, using 2014-based Household Projections, should be used to provide a minimum starting point in determining the number of homes needed in an area) . As described previously, the same guidance also outlines that an area's economic characteristics be accounted for in determining housing need. Additionally, the 2021 OGNA report noted the role of Oxfordshire's buoyant economy as a key driver of housing demand.

7.2.3 For these reasons, and also for reasons of consistency of approach, it was considered appropriate to carry over the approach to this report and that this would continue to be in line with planning guidance.

7.2.4 Secondly, the specifications of the scenarios from the 2021 OGNA were considered in detail. Finally, careful consideration was given to how the scenario specifications could be updated and amended with reference to new data and inputs and feedback received on the original report. The scenarios have thus been refreshed and reviewed taking account of the latest data and economic circumstances within this report.

The specification of each 2021 OGNA scenario is considered in detail below.

Standard Method Scenario and Standard Method Adjusted Scenario

7.2.5 The first scenario was based upon the housing number produced by the Government's standard method formula for assessing a minimum baseline for housing need. This uses population and household projections produced by the Office for National Statistics (ONS) / Government as the basis for establishing a trajectory of housing growth, which is subsequently adjusted to reflect issues of local affordability. In particular, the method uses 2014-based household projections, in accordance with the NPPF guidance.

7.2.6 As of late 2022, the standard method remains the basis for determining the minimum level of housing need in a local planning authority area. For the 2021

OGNA, the method produced an annual need figure for Oxfordshire of 3,383 dwellings per annum (uncapped). At the district level, this translated into a need for 756 dwelling per annum in Cherwell and 762 dpa in Oxford City.[22]

7.2.7 In the 2021 OGNA report, the Standard Method 'adjusted' scenario produced a near identical annual need figure of 3,386 dwellings. The adjusted baseline was created as a result of the uncertainty surrounding the ongoing use of 2014 household projections in the standard method itself, and of concerns regarding the robustness of the ONS demographic projections in the county, particularly for Oxford City.

7.2.8 The adjustments made in the scenario included the use of 2018-based population projections, as well as an adjustment to reflect population data gathered from GP patient registers. The patient register data and evidence of housing completions indicated that the ONS mid-year population estimates had been underestimating Oxfordshire's population. This has since been confirmed through by data from the 2021 Census (as per the analysis in Section 3).

7.2.9 Nevertheless, with these revisions to the demographic estimates, the final outturn need figure was little different to the un-adjusted standard method (3386 dpa vs 3383 dpa).

7.2.10 The Standard Method Adjusted (SMA) scenario estimated that this level of housing provision would support approximately 57,400 additional jobs between 2020 and 2040, based on the provision of 67,720 homes over the same period. This equates to 2,870 jobs supported per year.

Business as Usual Scenario

7.2.11 This scenario was the first of the two employment led scenarios. It calculated the number of dwellings that would be needed to support a given level of employment growth.

7.2.12 The level of employment growth selected is the central assumption that underlies this scenario. For this scenario, that level of job growth was modelled by Cambridge Econometrics using the baseline growth rate that informed the 2014 Strategic Housing Market Assessment, combined with Oxfordshire's 2008-2018 employment growth trend, which was then extrapolated forward to 2050. This scenario saw the creation of approximately 77,825 jobs by 2040 or 3,891 jobs per annum. To support this, an annual housing need of 4,113 homes was estimated.

Transformational Scenario

7.2.13 The final employment led scenario was based upon the Local Industrial Strategy (LIS) produced by the Local Enterprise Partnership. The scenario's employment estimate was derived from the 'go for growth' scenario in the LIS that targeted a doubling of the county's GVA, from £23bn to £46bn by 2040. The scenario produced an additional jobs figure of approximately 108,200 between 2020 and 2040 or 5,410 jobs per annum. To support this, the scenario estimated a housing need of 5,093 homes per year.

[22] Figures from Oxfordshire Growth Needs Assessment 2021, Phase 1 Report, Table 7.2.2, p92

Summary 2021 Scenario Results

7.2.14 Table 7.3 summarises the housing and employment outputs of the 2021 OGNA scenarios. Note that for the standard method (adjusted) scenario, the starting point is a demographic projection which an affordability uplift then applied which is then used to derive the number of jobs that level of housing would support. Conversely, for the employment led scenarios, these begin with an estimate of job creation, from which the associated housing need is then quantified making assumptions on economic participation and commuting.

Table 7.3: 2021 OGNA Scenarios – Summary Housing and Jobs results

2020-2040	Housing need (annual)	Jobs supported	Jobs created	Housing need (annual)	Population Change (increase)
Standard Method (adjusted)	**3,386**	**51,770**	**-**	**-**	**159,819**
Business as usual economic	**-**	**-**	**77,825**	**4,113**	**194,134**
Transformational economic	**-**	**-**	**108,227**	**5,093**	**240,390**

7.3 Updating the Scenarios for the 2022 HENA

2014-Based Standard Method Scenario

7.3.1 As is mentioned, the standard method remains the appropriate starting point as per the NPPF / Planning Practice Guidance for establishing a base level of housing need for individual local authorities. As such this scenario remains an important baseline for establishing the growth needs and implications of delivering what the guidance identifies as the minimum level of housing provision.

7.3.2 The standard method takes data from the 2014-based Household Projections for individual districts which is used to calculate the average annual household growth. A percentage uplift is then applied based on the latest median house price-to-income ratio for the area.

7.3.3 The only update necessary for this report is therefore to ensure that the latest data is used within the calculation, using projected household growth over the 2022-32 period (using the current year as the starting point as per the PPG) and taking account of the most recent housing affordability ratios (which at the time of writing are for 2021). The results are set out in Table 7.4.

7.3.4 At an Oxfordshire level this shows a need for 3,482 dpa (uncapped) or 3,388 dpa when Oxford City's figure is capped. At an Oxfordshire level the aggregate affordability adjustment derived is of a 44% uplift to the household projections in calculating the uncapped need.

Table 7.4: Standard Method Housing Need Calculations

	Cherwell	Oxford	South Oxon	VoWH	West Oxon	Oxford-shire
Households 2022	63,256	62,530	59,088	55,650	48,274	288,798
Households 2032	68,582	68,225	63,179	60,466	52,256	312,708
Change in households	5,326	5,695	4,091	4,816	3,982	23,910

Per annum change	533	570	409	482	398	2391
Affordability ratio (2021)	10.28	12.05	13.07	9.96	11.4	-
Uplift to household growth	39%	50%	57%	37%	46%	44%
Uncapped need (per annum)	742	856	641	661	582	3,482
Cap figure	1907	762	1260	1439	924	
Capped need (per annum)	742	762	641	661	582	3388

Source: Iceni Analysis of Standard Method Housing Need Calculations

2022 Census Adjusted Scenario

7.3.5 In the 2021 OGNA report, the rationale for the adjustment to the standard method was both to recognise any uncertainties surrounding the ongoing use of 2014 household projections, and in particular to recognise and respond to evidence pointing to stronger population growth particularly for Oxford. This was assessed in detail in the 2021 OGNA Report[23].

7.3.6 Since that report, the completion of the 2021 Census and the release of the population results from it in June 2022, has clarified some of the issues surrounding Oxfordshire's population estimates. Indeed, as the analysis in Section 3 has shown, the Census has shown the County's population to be 18,700 higher than projected in the ONS 2014-based population projections which feed into the standard method, with weaker population growth in Oxford and stronger population growth in other parts of the County (with the exception of West Oxfordshire).

7.3.7 The release of new census data provides the opportunity to create a new, Census based scenario that makes a more robust assessment of recent population trends and also population projections. A full analysis of the new census results is set out in section 3, including an outline of the approach to developing revised projections.

7.3.8 The Census adjusted scenario calculates housing need by taking the revised projection of household growth of 3,274 households per annum over the 2022-32 period, as calculated in Section 3. It then applies a consistent 44% uplift to this based on affordability characteristics in Oxfordshire. This generates a need for 4,721 dpa. The outturn figures are shown in Table 7.5.

Table 7.5: Census Adjusted Scenario Housing Need (dpa)

	Oxfordshire
Households 2022	296,596
Households 2032	329,339
Change in households	32,743
Per annum change	3,274
Uplift to household growth	44%
Housing need (per annum)	4,721

Source: Iceni Project, JGC Consulting

7.3.9 Whereas the 2021 OGNA's demographic analysis pointed to a similar scale of housing need as shown in the standard method (3386 vs 3383 dpa), the updated projection developed herein, informed by the 2021 Census data, points to stronger

[23] Section 3.8: *Developing an Adjusted Baseline,* p36, Oxfordshire Growth Needs Assessment Phase 1 Report, 2021

trend-based population growth. When a consistent affordability uplift is applied the housing need is higher (4,721 dpa vs 3,482 dpa uncapped).

2022 CE Baseline Trend Scenario

7.3.10 For the 2021 OGNA, a medium-term growth trend for Oxfordshire was used, in combination with Cambridge Econometrics forecasts used in the 2014 Strategic Housing Market Assessment. This was used to reflect the area's clear outperformance in the decade from 2008.

7.3.11 In feedback to the original report, questions were raised about the likelihood of this level of outperformance being sustained. In response, it can be said that as a general rule, the factors that lead to strong economic performance in a local economy such as access to high skill labour markets, and high rates of innovation and investment, once established, tend to remain and support ongoing growth, which is reflected in the economic modelling in the CE projections.

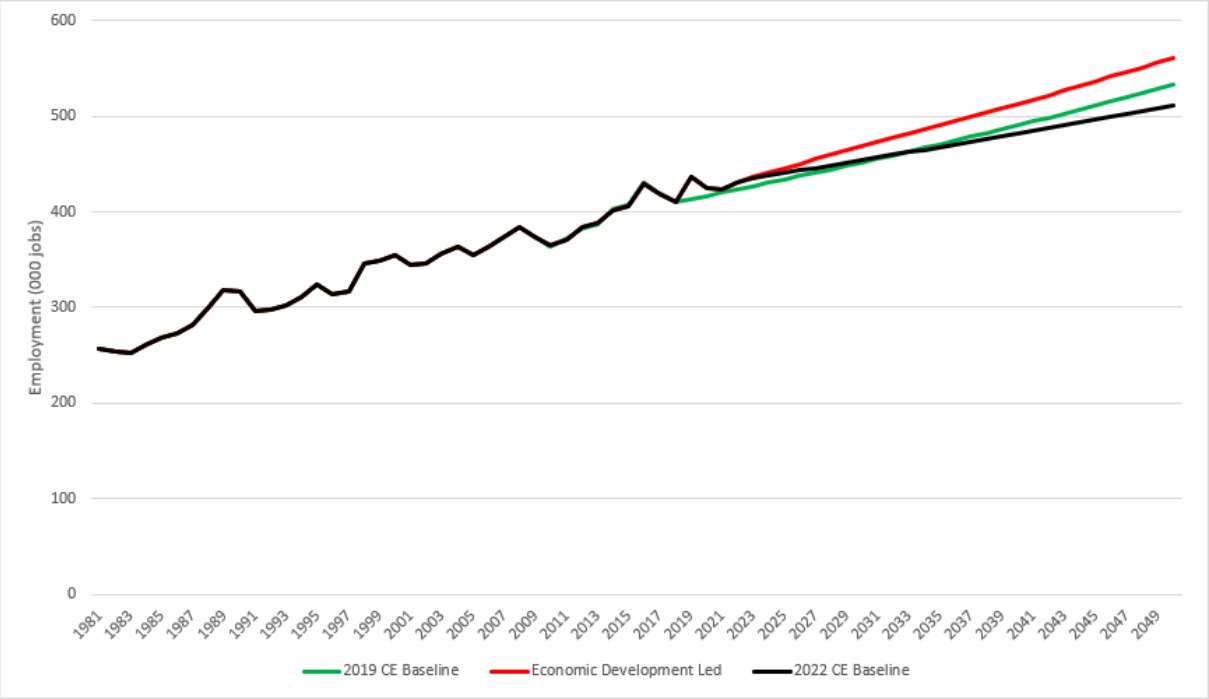
7.3.12 Nevertheless, the macro-economic and geo-political events that have taken place since the last report demonstrate the cyclical nature of economic growth and can now be said to represent the completion of another economic cycle. Economic cycles are generally represented by the time between one period of economic contraction and another, characterised by a period of growth in between. The last cycle can be identified by the Global Financial Crisis to the current downturn resulting from the Covid-19 pandemic and subsequent energy and inflation crisis associated with the war in Ukraine.

7.3.13 Given the level of uncertainty associated with the current downturn and the unpredictability of the recovery, it is considered most appropriate to use the 2022 update of Cambridge Econometrics' (CE) projection of economic growth for Oxfordshire. The new projection, while accounting for the County's strong past performance, also reflects negative GDP shock of the Covid-19 pandemic and subsequent recovery, plus the economic uncertainties surrounding 'Brexit'. A fuller explanation of the latest CE baseline projections is provided at Appendix A and B.

7.3.14 Overall, the baseline projection reflects a slowing of national GDP growth and therefore of the GVA and employment outturn for Oxfordshire relative to the previous baseline. This is appropriate given the change in economic outlook since the OGNA was prepared. This is discussed in more detail in section 7.7. Details of how the CE baseline projections are constructed, and how they are subsequently updated, are provided in the appendices.

7.3.15 The graph at Figure 7.2 shows the outturn for employment growth under the current and previous baselines, as well as that for Economic Development Led scenario (which is described further below). This shows that compared to the 2019 BAU scenario baseline, there are approximately 10,000 fewer jobs created by 2040 under the 2022 updated CE baseline scenario.

Figure 7.2: Cambridge Econometrics Baseline Projection 2019 vs 2022 vs Economic Development Led Scenario



An overview of the methodology for CE's projections, plus a summary of the 2022 update, is included in Appendix A and B.

Economic Development Led Scenario

7.3.16 The OGNA transformational economic growth scenario generated feedback that questioned the value of using an 'aspirational' scenario, reflecting the economic development aspirations of the Local Enterprise Partnership in its Local Industrial Strategy (LIS). However the NPPF in Para 82 does set out that in setting out an economic vision, planning policies should have regard to Local Industrial Strategies and other local policies for economic development and regeneration.

7.3.17 The intention of this scenario is therefore to show what an aspirational, growth focussed strategy might look like in terms of the development needs it would generate.

7.3.18 While accepting that this will be the scenario with the highest development need in terms of housing and labour demand, it is still felt to be a valid exercise to assess the needs of a growth focussed development strategy. On this basis, the updated scenario will be referred to as the Economic Development Led scenario.

7.3.19 It is also recognised however, that any economic development plans or projects that may inform this scenario, should be realistic and achievable and not so aspirational as to be unlikely or unrealistic. This appears to have been recognised in the more recent Local Investment Plan (LIP) that followed the LIS in late 2020. Rather than the previous aim to double GVA by 2040 (by £23bn), the LIP now cites a more modest goal to add £1.2bn to Oxfordshire's annual GVA by 2030. Were this to be achieved, GVA would increase by around £12bn by 2040, not accounting for any

additional output also achieved in the 2020s. In effect therefore, the LIP halves the GVA growth target originally outlined in the LIS.

7.3.20 This £1.2bn increase is based upon only the more concrete economic development and investment plans in the area that have either already begun or are close to coming forward. To this end, the £1.2bn increase in GVA by 2030 has been modelled within Cambridge Econometrics projections to produce corresponding growth and employment outputs to form the basis of this scenario.

7.3.21 Overall, the objective of this scenario is to estimate and understand the development needs associated with a realistic expectation of Oxfordshire's economic development goals and projects. These are both important to Oxfordshire and of national significance and value. The Local Investment Pan demonstrates how the area's investment plans and projects have had, and are likely to continue to have, national and international support and investment.

7.3.22 However, it remains possible that macro-economic events and public funding constraints may slow projects down or lead to some not progressing. Equally there are potential downside risks to economic growth associated with the global geo-political and macro-economic circumstances in 2022. These are considered in more detail later in this section (7.7.21).

7.3.23 It is important to recognise that in the longer-term Oxfordshire remains one of the most important investment locations in the country and that there can be expected to be continued demand for investment and projects to locate there. In summary, this scenario is designed to represent an example of a scenario showing the housing and employment impacts of a realistic, growth led scenario. It is based on the economic impacts of a realistic set of known development plans. The scenario is meant to demonstrate the impacts in terms of housing and economic needs – it is not meant to judge whether the specific projects and investments will or will not come forward. Rather it is an assessment of growth needs should economic development plans and projects in Oxfordshire's knowledge and technical sectors come forward to the level indicated by the scenario.

7.4 The Ratio Assumptions Used in the Scenarios

7.4.1 In order to run each of the scenarios they must make a number of assumptions in order to arrive at the outputs seen in the results. The employment-led scenarios take an estimated level of employment as a starting point. This is converted to workers and then resident workers using ratio assumptions for numbers of jobs per worker, for economic activity rates and finally for imported labour.

7.4.2 For these scenarios, the amount of imported labour must be set in order to deduce how much of the FEMA workforce is to be housed locally. Areas with active and dynamic labour markets such as Oxfordshire rely on imported labour to some degree. The level of commuting is subsequently determined by the level of imported labour, adjusted to reflect previous housing under-delivery and post Covid-19 homeworking estimates. The basis and rationale for the commuting assumptions is set out later in this section.

7.4.3 Once the number of workers to be housed is determined, the old age dependency ratio (the ratio of working age to retirement age people) is then applied to

determine the population that needs to be housed and the corresponding number of homes needed.

7.4.4 These same assumptions are used to determine the labour supply position resulting from the number of homes provided under the standard method/ demographic-led scenarios.

7.4.5 As a general rule, the assumptions made in the scenarios take levels and averages observed in current and recent data sets. The precise figures used in the scenario assumptions are set out in Table 7.6 and are described in more detail below.

Table 7.6: Overview of Ratio Assumptions used in Scenarios

	Ratio Used	Basis
1. Residents per Dwelling	2.36	Average ratio of population to household 2020-2040, from 2018 SNPP
2. Dependency Ratio	0.63	Current ratio of working age population in Oxon
3. Economic Activity Ratio	0.77	Current ratio of working-age to working people in Oxon
4. Job to worker ratio	0.955	Number of workers per job
5. Home based working	20% Remote 30% Hybrid 50% Workplace	CE Analysis
6. Commuting (Employment Led scenarios)	9,000 in commuters	Return to 2011 Levels

Residents per Dwelling

7.4.6 In the demographic/standard method-led scenarios, the initial assessment of housing need is first converted to a population figure, based on an assumption of household population. This figure is the result of dividing the total population according to the 2021 Census by the number of dwellings estimated by the standard method in 2040. This produces the same ratio of 2.36 resident per dwelling in Oxfordshire for both present day estimates (2022) and 2040 estimates. The ONS 2018 population projections produce a similar ratio, albeit on a mildly declining trend from 2.4 persons per household in 2022, to 2.35 in 2040.

7.4.7 As the scenarios are based on the standard method however, using 2014 projections and the 2021 Census, it is considered most appropriate to use the ratio derived from these projections.

7.4.8 Similarly, for the employment led projections, once the number of jobs and resident workers is established, the number of dwellings required to house those workers is derived from the same ratio.

Dependency Ratio

7.4.9 The dependency ratio is crucial to derive the level of labour supply in the total population. Traditionally this is represented by population estimates of the 16-64 age cohort. For the demographic/standard method-led scenarios, the larger the local

labour supply, the less demand for imported labour there is and the greater the level of sustainability that can be achieved. For the employment led scenarios, the larger local labour supply, the fewer homes are needed to house additional workers. As such, changes to these ratios can have a significant impact on the scenario outputs, so it is important that an appropriate ratio is used.

7.4.10 This has been given careful consideration, particularly in respect to true labour supply trends and characteristics. Traditional estimates of labour supply, using the 16-64 cohort, is one area that was felt to merit further consideration. The assumption that labour supply stops after 64 in particular is of course not correct. Experimental statistics by the ONS, using PAYE analysis, estimates that around 1.3 million over 65s were in employment in the UK in 2020, and close to 1.5 million in 2022.[24] On a purely proportionate basis of the percentage of the population, this would add around 17,000 working people to the Oxfordshire population by 2040. However, these are classified as experimental statistics by ONS, and furthermore, it would not be appropriate statistically to assume the same proportion of older workers nationally applied to Oxfordshire.

7.4.11 What can be done instead, is to use the 16-66 population as a more accurate measure of labour supply. This reflects the state pension age, which was equalised in late 2020 for men and women, at 66.[25]

7.4.12 The result is that the working age population rate in Oxfordshire increases by one percentage point from 62.3% to 63.3%. The effect of a single percentage point reduction is to lower the housing requirement in the employment led scenarios, by between 300 and 400 dwellings per annum, and to reduce surplus labour demand by around 5,000 workers for the demographic-led scenarios.

Economic Activity Ratios

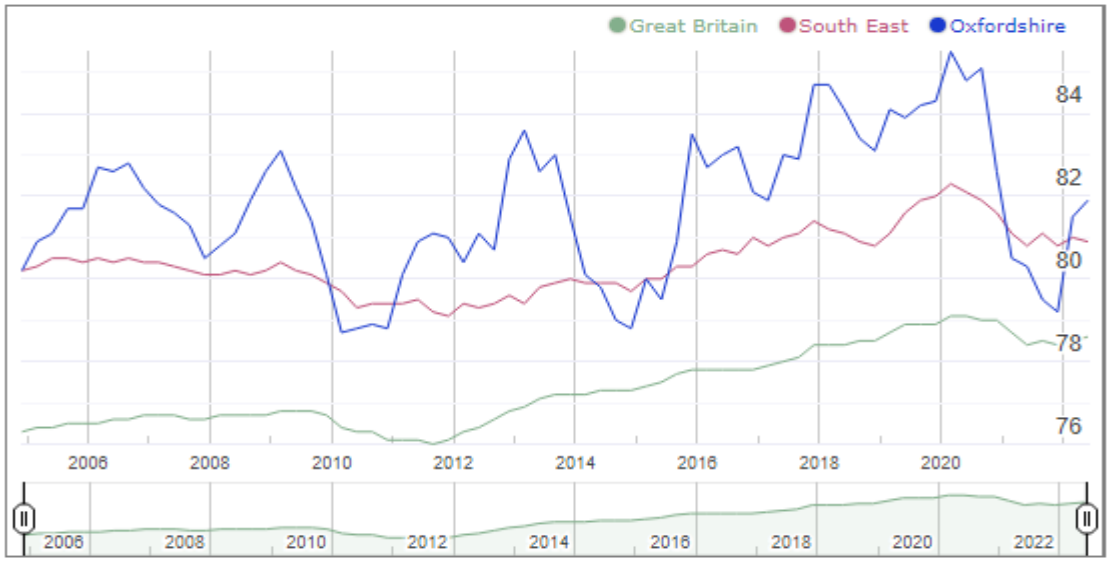
7.4.13 In the scenario steps, the economic activity rate follows from the working age population rate and derives the number of working people from the population of working-age people.

7.4.14 Current economic activity rates have been at historic highs, with unemployment at record lows, resulting in especially tight labour markets. Oxfordshire has been no exception to this, as is seen in Figure 7.3. This demonstrates the county's strong labour market and labour market demand.

[24] People aged 65 years and over in employment, UK - Office for National Statistics (ons.gov.uk)

[25] It is noted that the state pension age is set to rise from 66 to 67 by 2028 and from 67 to 68 by 2046. State Pension age timetables (publishing.service.gov.uk)

Figure 7:3: ONS Economic Activity Rates: Annual Population Survey



Source: Time Series Economic Activity Rates, ONS Nomis Local Authority Profile

7.4.15 As is seen in Figure 7.3 however, local labour market activity rates are volatile such that selecting a single point in time figure cannot be a robust basis to use in the scenarios given the level of variation from data point to data point. The local Oxfordshire figure as variously fallen below and above the average regional rate which is less volatile.

7.4.16 Overall, it was considered more appropriate and statistically reliable to use an average of the regional economic activity rate for the scenarios, over the full period since the Annual Population Survey has been in use. This gives a long-term average that aligns more closely with the 20-year time frame of the plan period and minimises variation.

7.4.17 The number of working residents can then be compared to estimates of workplace employment to determine the surplus or deficit of working residents necessary to meet local labour demand. This surplus or deficit represents a proxy for likely net commuting flows.

Job to Worker Ratio

7.4.18 This ratio is necessary to convert employment (number of jobs) to number of workers. It accounts for people who may have more than one job, reflecting the fact that the number of jobs estimated does not equal the number of required for those jobs. The ratio used of 0.955 is the same as that of the 2021 OGNA, taken from the Annual Population Survey.

Commuting and Home-based Working

7.4.19 Commuting trends reflect the balance of labour demand and labour supply, which are defined through job creation and housing supply. As such, this is a crucial aspect of determining current and future housing and employment needs. The 2021 OGNA report observed that,

"Oxfordshire currently has a net commuting inflow of 20,500 people... This reflects the strength and attractiveness of Oxfordshire's labour market and its high employment density."

"… this number has rapidly increased over recent years as people reporting to work in the county continues to exceed the number of employed residents. With more people commuting into the county, and commuting a further distance, this has had implications for journey times, congestion and emissions in Oxfordshire.

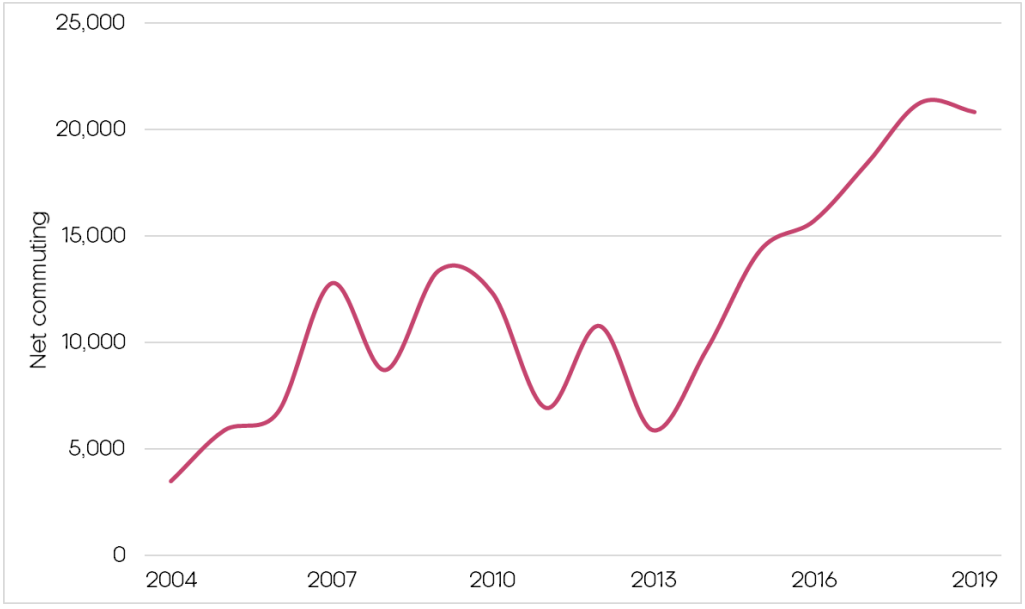
Between 2011 and 2018, the number of people working in Oxfordshire is estimated to have increased by 36,100, whilst the number of employed residents increased by only 25,200. With some 82.8% of working age residents in active employment (the highest employment rate in the country), Oxfordshire's already tight labour market has been reliant on workers residing outside the county to sustain its economic growth.

Resultantly, net commuting has more than doubled over this timeframe, from 9,000 to 20,500 daily inward commuters."

7.4.20 The report showed that commuting levels began to substantially increase above the ten-year trend from 2004, as shown in Figure 7.4. This mirrored the observed trend of workplace employment growth (labour demand) accelerating ahead of resident population growth (labour supply), creating an imbalance reflected in market pressures and commuting trends.In effect the growth in commuting seen has been a symptom of an imbalance between housing demand and supply.

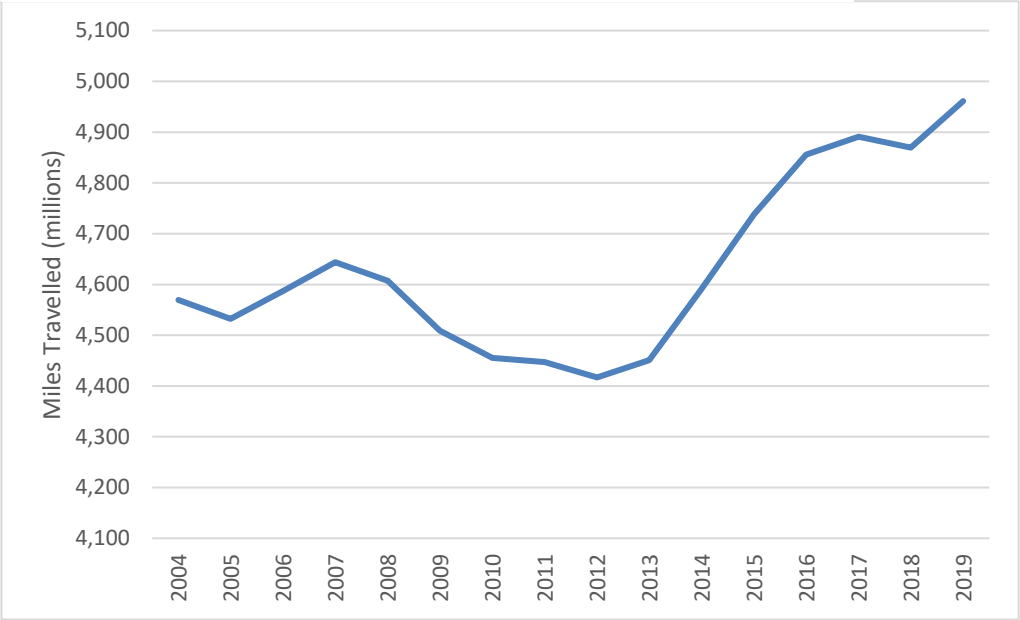
7.4.21 Analysis of vehicle miles travelled further verifies these observations, demonstrating the commuting impact of the labour market imbalance observed in the period from 2013.

Figure 7.4: Oxfordshire's net commuting flows, 2004-19



Source: ONS, Cambridge Econometrics.

Figure 7.5: Miles Travelled in Oxfordshire – All Vehicles, 2004-19



Source: DfT Road Traffic Statistics, Cambridge Econometrics.

7.4.22 The 2021 OGNA report argued that a return to 2011 commuting levels, which equated to a ratio of 1.03 workforce workers per resident worker, was both achievable and less imbalanced relative to the position that was shown to have developed subsequently. A certain amount of commuting into the county is to be expected, particularly in areas of high labour demand, and needs to be factored into the employment-led scenarios to derive a housing need figure. Maintaining the 2011 ratio creates a labour supply deficit across the FEMA of around 14,000 workers by 2040 and an estimated commuting flow of 9,000 workers once homeworking is accounted for (see next section for home working calculations).

7.4.23 I It is felt relevant and appropriate to retain this modelling assumption for the employment led scenarios. This then shows the level of housing demand that would be necessary to achieve the labour supply and commuting balance implied by the 2011 position. This position also aligns with the lowest level of miles travelled in the published DfT traffic data from 2004 (Figure 7.5).

7.4.24 The NPPF outlines in Paragraph 61 that it is important that calculations of housing need take into account market signals. The commuting imbalance described and which has arisen since 2011 is, the evidence shows, a function of an imbalance between supply and demand. It is appropriate therefore to take this into account in assessing housing need.

7.4.25 The demographic-led scenarios produce two different levels of labour supply deficit (Table 7.8) and demonstrate the commuting effects of both a larger labour supply deficit, (35,000 - Standard Method Scenario) and a smaller labour supply deficit (7,300 - Census Adjusted Scenario).

Home-based Working

7.4.26 It is also important to recognise the role of home-based working, particularly its prevalence following the Covid-19 pandemic. As such, considerations of home-based working have been incorporated into the commuting calculations of the updated scenarios. This accounts for the fact that not all working residents will commute to work every day.

7.4.27 An analysis of literature and recent research reveals a large amount of studies into the post pandemic working-from-home trends. Due to the variety of outputs generated by these studies and given how recent and untested they are, it is not possible to be definitive or conclusive about future homeworking trends.

7.4.28 Instead, we have used a plausible scenario for homeworking patterns for Oxfordshire that accounts for a proportion of the workforce working from home. This is based on ONS survey data collected for the year ending December 2020[26]. This found that on average, 30% of Oxfordshire residents worked from home in the week leading up to being surveyed. However, this average masks a highly variable picture in the districts, with 24% and 28% in Cherwell and Oxford respectively working from home, compared to 41% in Vale of White Horse.

7.4.29 Given the weighting of the county's total jobs towards Cherwell and Oxford, and that the survey was carried out in 2020 when various Covid-19 lockdowns were implemented, the home working assumption in the scenarios is reduced to 20% of the workforce from the 30% average for Oxfordshire.

7.4.30 The ONS survey further revealed that just over 50% of Oxfordshire residents either worked from home at some point or worked from home entirely. These results were used to inform the assumption that overall, 50% of workers are either fully remote or hybrid workers, while 50% are fully workplace based.

7.4.31 Overall, this produces the assumption that 20% of workers are fully remote, 30% are hybrid with a mix of home and workplace working (set to 2 days of homeworking a week), and 50% are fully workplace based. It should be emphasised that this assumption serves only to represent a likely scenario of homeworking patterns in Oxfordshire..

7.4.32 The result is that the commuting estimate – derived from the 1.03 worker ratio – is reduced to account for the reduction in expected daily demand for workspace. The effect of this is to reduce the commuting estimate to 9,000 from the total worker deficit of around 14,000.

Assumption Sensitivities

7.4.33 It is important to understand that the assumptions are necessary and have to be fixed at a given level in order for any scenario to produce its output numbers. The nature of scenario planning will aways be that it is possible to change the scenario outputs by changing the assumptions.

[26] Homeworking in the UK labour market - Office for National Statistics (ons.gov.uk): https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/homeworkingintheuklabourmarket

7.4.34 While it is not possible to say with certainty that the assumptions will represent reality, it is important to use known and realistic assumptions that represent recent reality and trends. This is the process that has been used for this HENA report.

7.4.35 It is also a useful exercise however, to consider the implications of changes to the assumptions that could occur, even if they are not expected. Recent events such as the Covid 19 pandemic and the conflict in Ukraine show that unexpected events are all too common and may alter expected trends and outcomes. A summary of the effects of changes in the ration assumptions is provided in Table 7.7.

Table 7.7: Summary of assumption variations and associated effects

	Ratio	Possible variation	Effects of change
1. Residents per Dwelling	2.36	Faster declining trend over period. Unlikely.	Lower ratio will add to housing need
2. Dependency Ratio	0.63	Faster ageing of population reduces labour supply. Unlikely as balanced by later retirement age. More older people in work, influenced by changes to state pension age	Reducing labour supply increases housing need in the scenarios. Increases labour supply with associated reductions in housing need
3. Economic Activity Ratio	0.77	Activity rate highly variable at local level, generally high in areas of high employment/GVA.	Increasing activity rate increases labour supply, lowering housing need in the scenarios. Lower rate, has the reverse effect.
4. Job to worker ratio	0.955	Has remained broadly consistent over years, significant change not expected.	More people doing multiple jobs would reduce housing need in the scenarios.
5. Home based working	20/30/50 Ratios for remote, hybrid, workplace	Current scenario assumptions *reduce* housing need by reducing commuting effect due to remote working.	If pre-covid workplace trends were to return, the effect in the scenarios would be to increase housing need.
6. Commuting* (Employment Led scenarios)	9,000 in-commuters	Current figure for Employment Scenarios based on 2011 commuting levels and below current levels but above SM adjusted scenario.	Housing need figures for the Employment Scenarios can be reduced by accepting higher levels of imported labour.

**Commuters defined as difference between labour demand (Oxon workforce) and labour supply (working residents), adjusted for home working assumptions.*

Housing Market Effects

7.4.36 In the 2021 OGNA report, an analysis labour demand and housing supply identified a relationship between job to dwelling ratios and house prices[27]. This showed that as the number of jobs increased at a faster rate than the level of house building, the ratio increased in line with house prices, while a fall in the ratio coincided with an easing of house price inflation. This is explored in research by Cambridge Econometrics of housing market effects of employment and economic growth, which is set out in appendix C.

7.4.37 This is similar in theory to the house price adjustment mechanism applied to the standard method, where the ratio of earnings to house prices is used to indicate a level of additional housing demand when the ratio is above regional or national averages.

7.4.38 The housing market effect for the scenarios in this HENA consider the ratio of jobs to dwellings and shows the percentage change in the ratio between 2020 and 2040, based on the housing need indicated by each scenario. A change in the ratio represents a shift in the housing supply and demand balance.

7.5 The 2022 HENA Scenario Results

7.5.1 In this section, the results produced by each of the scenarios are analysed. The results are summarised in Tables 7.8 and 7.9 below, showing the demographic-led and employment-led scenarios respectively.

7.5.2 The scenario outputs show that the economic development led scenario supports the most employment and results in the greatest level of housing need. The standard method scenario, with the lowest level of housing provision, results in the largest labour supply deficit and commuting demand. The Census adjusted standard method scenario, and the 2022 CE baseline scenario, fall between the two with roughly similar outputs. These results are assessed in detail below.

Standard Method Scenario Results

7.5.3 This scenario demonstrates the likely impacts of providing the minimum level of housing as required by the NPPF and Planning Practice Guidance. When set against the CE baseline of labour demand, the scenario produces a substantial labour supply deficit (around 35,000) that must be met by imported labour, generating an estimated commuting inflow of around 22,500 workers per day. The housing market effect of this scenario shows a 4 percent improvement in the housing demand and supply ratio, the smallest housing supply improvement of the four scenarios.

2021 Census Adjusted Scenario Results

7.5.4 The Census adjusted scenario produces a level of housing need using the adjusted population and household projections derived from the 2021 Census, as

[27] 2019 Oxfordshire Growth Need Assessment, Phase 1 Report, Chapter 13, Section 13.5

outlined in Chapter 3. It also incorporates the affordability uplift form the standard method formula.

7.5.5 As in the first scenario, the outputs then assess the likely labour market, commuting and housing market impacts that arise from this level of provision, in this case 4,721 dwellings per annum.

7.5.6 This scenario produces a much smaller labour supply deficit at around a fifth of that produced by the standard method scenario. This indicates a likely in-commuting effect of around 4,800 workers.

7.5.7 The housing market effect sees a 10% improvement in the supply and demand ratio against 4% for the standard method scenario.

Table 7.8: Summary Housing Led Scenario Results

	Standard Method	2021 Census Adjusted
Housing Need (dpa)	**3,388**	**4,721**
Population 2040	875,522	932,148
Resident Workers 2040 (Labour Supply)	425,411	452,926
Workforce 2040 (Labour Demand)	460,268	460,268
Labour Supply Deficit	34,857	7,342
Commuting Demand (accounting for home working)	22,657	4,773
Housing Market Effect (Inc in supply /demand ratio)	4.1%	9.9%

2022 CE Baseline Scenario Results

7.5.8 The scenario shows that the level of labour demand (i.e. employment growth) generated by the CE baseline employment scenario, which when accompanied with the commuting adjustments identified, produces a housing need of 4,406 dwellings per annum. This also has the same housing market effect as the adjusted standard method scenario, showing a 8.6% improvement in the housing supply and demand ratio.

Economic Development Led Scenario

7.5.9 The final employment led scenario generates the highest need for housing at 5,830 dwellings per annum, based on the level of GVA and employment growth

targeted by the LEP Investment Plan, and based on the same commuting assumptions used for the CE baseline scenario.

7.5.10 This scenario improves the housing supply and demand ratio by 10%, so delivering the largest housing market supply impact.

Table 7.9: Summary Employment Led Scenario Results

	2022 CE Baseline	Economic Development Led
Workforce 2040 (Labour Demand)	460,268	489,655
Population 2040	918,763	979,244
Resident Workers 2040 (Labour Supply)	446,422	475,809
Housing Need (per annum)	**4,406**	**5,830**
Labour Supply Deficit	13,846	13,846
Commuting Target (with home working)	9,000	9,000
Housing Market Effect	8.6%	10.1%

7.6 Distribution of Housing Need by District

7.6.1 The 2021 OGNA report concluded that the county of Oxfordshire represented a reasonable approximation of the Functional Economic Market Area (FEMA) and Housing Market Area (HMA). The scenarios used in the HENA are similarly based on the HMA/FEMA for the reason that labour and housing markets function over this market area which extends beyond the boundaries of individual districts.

7.6.2 While the standard method provides housing need figures at district level, these are aggregated to the FEMA level in order to run the scenarios which produce more robust and consistent outputs at the FEMA/County level. In constrained urban districts like Oxford, the calculation of need using sub-national population projections that inform the standard method, can be distorted by historic suppression of household formation and impacts which constrained housing supply has on migration patterns. This effect is negated when assessing the whole FEMA as this covers the functional area where households will have formed beyond spatially constrained areas.

7.6.3 As the scenario outputs are mostly informed by HMA/FEMA level data, the statistically robust approach is to apply district distributions once FEMA level housing need has been calculated for each of the scenarios.

7.6.4 Due to the local area effects described above regarding supressed population growth and household formation in Oxford, it is not considered appropriate to use the standard method as a basis for distributing housing across the FEMA, particularly given Oxford's role as the county's economic node, which sees acute affordability issues.

7.6.5 Distribution using the standard method method continues existing patterns of development, rather than trying to assign the need to where it is being generated. For reference, the results of distributing need on this basis are shown in Table 7.10.

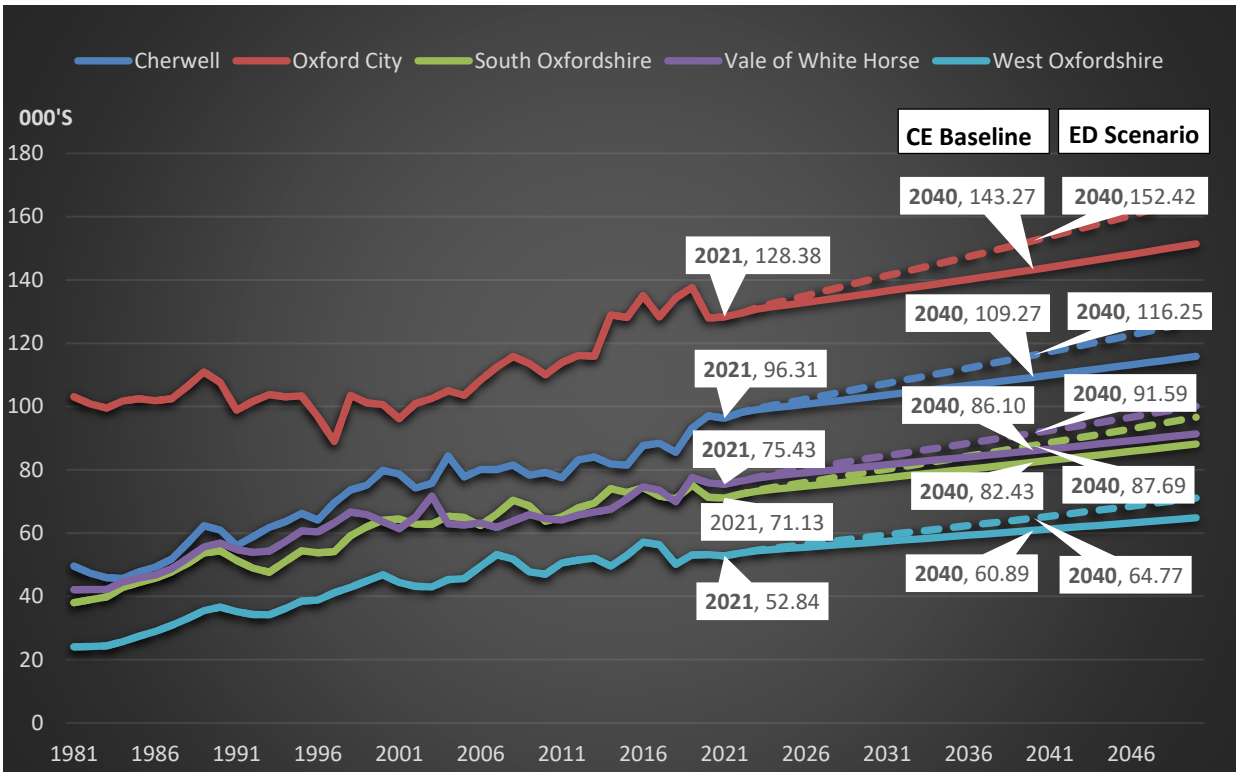
Table 7.10: Distribution of District Housing Need by 2014 based Standard Method

		Housing Need Scenario			
2014 Based Standard Method Distribution		**Standard Method**	**Census Adjusted**	**CE Baseline**	**Econ. Dev't Led**
Oxfordshire / FEMA	*100%*	**3388**	**4721**	**4406**	**5830**
Cherwell	21.9%	742	1034	965	1277
Oxford City	22.5%	762	1062	991	1311
South Oxfordshire	18.9%	641	893	834	1103
Vale of White Horse	19.5%	661	921	860	1137
West Oxfordshire	17.2%	582	811	757	1001

7.6.6 An alternative distribution method is to reflect the distribution of employment (jobs) in different areas. That is to say, the proportions of the total employment in each district are mirrored by the distribution of housing in each district. This option is proposed on the basis that employment creation can be expected to influence the geography of housing demand (even with the effects of working from home), while it is desirable from a sustainability point of view to locate housing and employment close together where possible. The employment projections indicate the level of job growth that can be expected to occur over the plan period in each district and as such it is appropriate to match housing need with job creation.

7.6.7 Over the plan period, the projections show a greater concentration of jobs being allocated to Oxford and Cherwell and a lower concentration to South Oxfordshire, Vale of White Horse and West Oxfordshire. Figure 7.6 shows how the employment distribution in each district currently looks and is projected to look using the forward projections from CE's baseline forecasts (and the Economic Development based projection).

Figure 7.6: Employment Projections by District – CE Baseline and Economic Development Led (dashed line). *Data Labels in '000s*



Source: CE 2022 Baseline Projections including ED Scenario GVA Uplift

7.6.8 It should also be noted that employment distribution is projected to change over time, unlike for the standard method distribution which remains constant over time. Therefore it is appropriate to consider whether to apply either the *current* distribution or the *projected* distribution at the end of the period in 2040. The full housing distribution outcomes in each district for the current and projected employment-based distributions are shown in Table 7.11 and 7.12 respectively.

7.6.9 The employment distributions show how employment demand is highest in Oxford and is projected to increase. They also show how Cherwell, from having similar employment demand to South Oxfordshire and Vale of White Horse at the turn of the millennium, now supports a significantly higher proportion of jobs than the remaining districts. West Oxfordshire generates the least employment demand and its growth projections remain low over the plan period.

Table 7.11: Distribution of District Housing Need by Distribution of Employment in 2021

CE Baseline Trend Employment Based Distribution Current (2021) Distribution		SM	CA	CE-B	ED
Oxfordshire	*100%*	**3388**	**4721**	**4406**	**5830**
Cherwell	21.5%	728	1015	949	1253
Oxford City	26.7%	905	1261	1176	1557
South Oxfordshire	19.5%	661	921	857	1137
Vale of White Horse	18.5%	627	873	817	1079
West Oxfordshire	13.8%	468	651	607	805

Table 7.12: Distribution of District Housing Need by Distribution of Employment in 2040

CE Baseline Trend Employment Based Distribution Projected (2040) Distribution		SM	CA	CE-B	ED
Oxfordshire	*100%*	**3388**	**4721**	**4406**	**5830**
Cherwell	22.9%	776	1081	1009	1335
Oxford City	30%	1016	1416	1322	1749
South Oxfordshire	18%	610	850	793	1049
Vale of White Horse	16.2%	549	765	714	944
West Oxfordshire	12.8%	434	604	564	746

Selecting a Distribution Methodology

7.6.10 The employment-based distributions place the most homes where the most jobs are and the least homes where the least jobs are – they are thus demand-led. The results of the current (2021) distributions in Table 7.11 and the standard method distributions (Table 7.10) are similar and suggest that the affordability uplift in the standard method represents a reasonable proxy for a proportionate economic uplift representative of high economic pressures. While the affordability uplift represents economic pressures through housing costs and affordability, the employment distributions do this through job numbers. As is noted, both approaches produce similar distribution rates of housing need when comparing the current employment distribution, albeit with a slightly higher allocation in Oxford and slightly lower in West Oxfordshire. This reflects the respective high and low job densities of those districts.

7.6.11 For the *projected* employment distribution (by 2040), the trend of increasing employment shares continues to the end of the plan period, increasing the employment distribution in Oxford and Cherwell, and marginally decreasing the distribution in the remaining districts.

7.6.12 While the standard method and *current* employment-based distribution are similar, **the assumption of a static distribution through the plan period does not reflect the dynamic nature of the labour market and geography of expected employment growth**. Specifically, it does not account for the baseline forecast that Oxford and Cherwell are set to further develop as the drivers of the wider FEMA economy. The two districts are projected to represent well over half of the FEMA's employment by 2040.

7.6.13 As such, **the employment led distributions represent the more appropriate approach of those considered for distributing the FEMAs housing need**, given that the geography of employment growth will influence that of housing need, the link to balancing the provision of homes and jobs, and the associated sustainability benefits. Furthermore, given the need for Local Plans to plan for the period to 2040, it makes sense, when using an employment-based distribution of housing, to select the distribution based on where the jobs are expected to be at the end of the plan period rather than the beginning. This recognises the role which the geography of future job creation will have on that for housing need.

7.6.14 Therefore, it is recommended that the 2040 employment-based distributions are used to allocate homes across the districts.

Capacity Constraints in Oxford City

7.6.15 While all the scenarios and distribution approaches recognise and account for the economic role of Oxford, it is accepted that the physical and spatial constraints in Oxford mean that it may not be possible to deliver the high levels of both housing and commercial floorspace growth that the need calculations indicate are needed across the plan period to 2040.

7.6.16 The reducing trend in the rate of population growth in Oxford, as shown in the most recent ONS population projections and in the 2021 Census, suggests that such constraints are already starting to show and are constraining the ability of people to move to the City and form households. Nevertheless, the scenario outputs and distributions present the opportunity to quantify any unmet need should capacity levels suggest that identified needs cannot be met.

7.7 Conclusions on Housing Need Scenarios

7.7.1 National Planning Practice Guidance states that there will be circumstances where it is appropriate to consider if housing need is higher than indicated by the standard method calculation. The HENA's aim has been to carry out an objective assessment of housing and employment needs; this has been done using projections of population and employment growth alongside a realistic set of economic and demographic assumptions that derive the level of need arising from the projections.

7.7.2 This is similar in approach to the standard method calculation that uses a projection of population growth and assumptions of household formation and population rates to derive a housing need figure. The HENA scenarios simply extend this process to additionally consider the labour demand/supply, commuting and housing market effects, as well as up-to-date demographic data from the 2021 Census. National Planning Practice Guidance makes clear that the standard method:

"provides a minimum starting point in determining the number of homes needed in an area."

7.7.3 As the standard method represents a minimum level of need, the scenarios in the HENA are designed to test the impacts of providing the minimum level of need, as well as three additional scenarios that consider the impacts of higher levels of housing provision. It can then be assessed which of these scenarios represents the most appropriate levels of housing and employment need for Oxfordshire, from which a final need figure can be derived, recognising that the PPG accepts that there will be circumstances where actual housing need is higher than the standard method indicates. This section considers each of the scenarios in this context.

The 2014 Standard Method Scenario

7.7.4 It is clear that delivering the minimum level of housing need, as defined by the 2014 standard method, provides a correspondingly low level of local labour to support Oxfordshire's economy, when compared to the labour market growth projected in the CE 2022 based employment baseline projection.

7.7.5 The reason for this mismatch between population and employment in the standard method is likely to be related to underestimates of population growth since 2011, revealed by the 2021 Census; that the standard method does not capture demographic data post 2014 (which show that population growth has been stronger than in the 2014-based projections); and the method does not take account of economic factors which are key drivers of housing need in an Oxfordshire-specific context. The rapid growth of the workplace labour market has created the population / jobs imbalance identified in the 2021 OGNA report and reflected in the growth of imported labour as described in section 7.4.

7.7.6 In delivering the minimum level of housing need, this scenario fails to address the labour supply issue, generating a deficit of around 35,000 people that must be met by imported labour. This results as the standard method will not provide sufficient housing to match the level of job creation expected to 2040. This has negative implications for sustainability, generating an estimated commuting inflow to the county of around 23,000 people per working day, incorporating allowances for new and ongoing home working patterns. This scenario also produces the most limited effect in terms of re-balancing housing supply and demand, which was identified to have become unbalanced in favour of demand in the 2021 OGNA report.

7.7.7 Given Oxfordshire's economic dynamism and the substantial labour supply deficit which arises in this scenario, it seems unrealistic to assume that this scenario is likely to see affordability improve, as the Government aspires to.

7.7.8 The evidence thus suggests that housing need will be higher than the 2014 Standard Method Scenario, particularly for Cherwell and Oxford City.

The 2021 Census Adjusted Scenario

7.7.9 This scenario sets the level of housing 40% higher than the 2014-based standard method, reflecting recent population trends revealed by the 2021 Census (with an equivalent affordability adjustment then applied). While this means the scenario reflects updated and more robust demographic projection and data as set out in section 3, it should be noted that this scenario also accounts for and reflects greater economic growth in a number of ways.

7.7.10 This is firstly because the updated population data, by showing the greater level of population growth from the Census than was indicated by the 2018 population projections, is reflecting higher levels of economic growth that were a driver in the increased population growth. Secondly, the scenario incorporates the affordability uplift from the standard method calculation. Therefore, the scenario accounts for economic factors and market signals as represented in the affordability uplift.

7.7.11 The resulting increase in housing supply proposed by this scenario leads to a much smaller labour supply deficit of around one fifth that of the standard method scenario (7,300 workers), translating to estimated daily in-commuting of around 4,800 journeys. This also means that housing provision is rebalanced by 10% in favour of supply versus demand, compared to 4% for the standard method scenario, relieving some pressure on the local housing market.

The CE Baseline Trend Scenario

7.7.12 The baseline trend scenario shows what the level of housing need will be to support the level of workforce implied by the 2022 CE baseline projection. In order to determine this, an assumption must be made about the proportion of workplace workers that should be housed locally, within the FEMA. As is described in section 7.4, in a regional and buoyant labour market such as Oxfordshire's, labour supply will always be supplemented with workers imported from beyond the FEMA.

7.7.13 An appropriate level of labour supply deficit, derived from 2011 commuting levels, is considered in section 7.4. The adjustment made to commuting recognises that a key driver of increased in-commuting over the period since 2011 has been an imbalance between housing supply and demand in Oxfordshire, with the job creation exceeding the pace of housing delivery. The modelling approach thus responds to market signals. The modelling in this scenario results in a labour supply deficit of around 13,800 workers to be supplied from outside the FEMA, and a housing need figure of 4,406 dwellings per annum to support the remaining labour demand created in the CE baseline.

7.7.14 If employment demand was to exceed the CE baseline, the labour supply deficit would increase, alongside housing demand in response. The baseline trend scenario increases the housing supply and demand ratio by 8.6%. The housing need

generated by a higher rate of employment demand is represented by the Economic Development led scenario.

The Economic Development Led Scenario

7.7.15 The Economic Development scenario demonstrates the potential change in housing need should the economy outperform the growth rate currently predicted by the CE 2022 Baseline, against which the other scenarios are based to derive labour demand.

7.7.16 The Economic Development scenario proposes a workforce that is around 6.3% or 30,000 jobs larger than the CE baseline trend by 2040. This is based on the Local Enterprise Partnership Investment Plan target to add £1.2bn to Oxfordshire's GVA by 2030. This requires 5,830 homes per year based on maintaining the in-commuting rate as described above at 9,000 people. The scenario produces a similar housing supply rebalancing figure as the Adjusted Standard Method scenario at around 10%.

7.7.17 However it remains possible that macro-economic events and public funding constraints may slow projects down or lead to some not progressing; and equally there are potential downside risks to economic growth which are explored further as part of the section on assessing the scenarios below.

Assessing the Scenarios

7.7.18 Overall, the evidence points to the overall scale of housing need being above the minimum level of housing need – based on the Standard Method 2014 Scenario - given the reliance which that scenario creates on imported labour, even accounting for weaker economic growth and for ongoing patterns of homeworking that have emerged as a result of the Covid-19 pandemic.

7.7.19 The standard method does not capture demographic data post 2014 which show that population growth has been stronger than in the 2014-based projections. It will not provide sufficient housing to match the level of job creation expected to 2040. In these terms, the evidence indicates that it underestimates the actual scale of housing need in Oxfordshire.

7.7.20 Planning on the basis of the 2014 standard method scenario would therefore have implications for sustainability, including congestion, emissions and net zero aspirations, as well as for Oxfordshire's economy by continuing to rely heavily on imported labour. This presents a risk that it becomes too difficult to attract large amounts of labour from outside of Oxfordshire, in turn constraining economic development, business growth and discouraging business from locating there – which would be inconsistent with national planning policy. The scenario also establishes no headroom for stronger economic performance or any degree of return to pre-pandemic patterns of home working. These would add further labour market pressures, with potential for additional wage and house price inflation. Again this is inconsistent with national policy. These are relevant considerations to take into account as part of Sustainability Appraisal of different growth options.

7.7.21 As of the end of 2022, global geo-political events, following on from the economic disruption of the Covid-19 pandemic, are indicating a prolonged period of

economic weakness. This is reflected in recent Bank of England forecasts[28] that predict a UK recession throughout 2023 and into early 2024. While history shows that recovery from economic downturns is often strong, as was the case in the period after the 2008 Financial Crisis, it is difficult to speculate about the path of recovery in the UK and global economy over the next 20 years.

7.7.22 It is recommended therefore, on balance, to use the scenarios that derive labour demand from the CE 2022 Baseline, therefore discounting the Economic Development led scenario that is adjusted down to the LIP from the LIS, because there is still over-optimism in that scenario.

2021 Census Adjusted and CE Baseline Trend

7.7.23 This leaves the two middle scenarios of 2021 Census Adjusted and CE Baseline Trend. These are the recommended scenarios. These two assessments of need show the difference between providing around an additional 300 homes per year, set out in full in Table 7.1, which is to reduce the level of imported labour and commuting required when using the higher dwellings figure. The lower number results in a smaller population by around 14,000 people, resulting in about 6,500 fewer resident workers in the local labour supply.

Table 7.1: Summary of outputs for recommended scenarios

	2021 Census Adjusted Standard Method	CE Baseline Trend
Housing need per annum	4,721	4,406
Total Dwellings 2040	394,978	389,306
Total Population 2040	932,148	918,763
Working Residents 2040	452,926	446,422
Workplace Workers 2040	460,268	460,268
Inward daily commuting	4,773	9,000
Improvement in Housing Supply (relative to demand)	9.9%	8.6%

7.7.24 The role of the scenarios in the HENA is to help determine the appropriate level of housing need and employment need for Oxfordshire. The standard method is shown not to reflect up-to-date demographic data and to underestimate need. An alternative approach is justified. Alternative scenarios for assessing need have been explored. This assessment has concluded that the 2021 Census Adjusted and CE Baseline Trend scenarios are justified assessments of need. Whichever approach is used to derive a housing figure, the data in relation to each scenario also helps show how that level of housing will address labour supply needs, housing market pressures and affect commuting patterns – factors that are within the scope of a housing and economic needs assessment.

[28] Bank of England Monetary Policy Report, November 2022: Monetary Policy Report - November 2022 | Bank of England

PART C: Future Employment Land Needs, Affordable and Specialist Housing Need and Mix

8 Future employment land needs

8.1 Introduction

8.1.1 In this section we move on to consider future needs for employment land and floorspace to 2040. It addresses the need for office, land/R&D, industrial and warehouse/distribution uses.

8.1.2 Planning Practice Guidance outlines a number of different forecasting techniques for considering future employment land needs. Different approaches have their advantages and disadvantages. Econometric forecasts take account of differences in expected economic performance moving forward relative to the past. However, a detailed model is required to relate net forecasts to use classes and estimate gross floorspace and land requirements. For office-based sectors consideration needs to be given to the impacts of trends in home working.

8.1.3 Our approach works through a number of core stages:

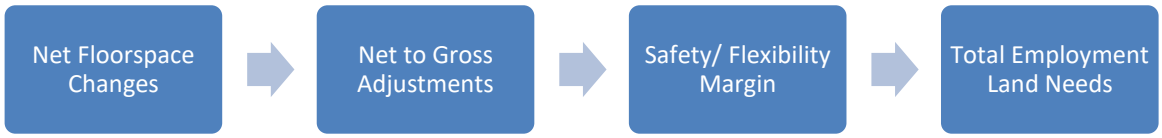
- Firstly, considering net floorspace changes, drawing on a range of different models – the econometric forecasts (for labour demand); trends in net changes in employment floorspace; trends in net absorption (i.e. in occupied floorspace); and net completions/deliveries.

- Secondly considering net to gross relationships – considering what adjustments should be applied to take account for losses, and issues around replacement demand;

- Thirdly identifying what safety margin or flexibility is necessary to provide a choice of sites, recognising that business' floorspace needs are not homogenous and to provide some flexibility for delivery slippage/ non-delivery of sites.

These core stages are shown below.

Figure 8.1: Overview of Forecasting Approach



8.1.4 For industrial sectors however the relationship between floorspace needs and employment trends may be weak – influenced by productivity improvements – meaning that a decline in employment does not necessarily mean a reduction in space requirements. In contrast, past take-up is based on actual delivery of employment development; but there is a need to consider whether future market dynamics may differ from the past. Past take-up trends, particularly for individual local authorities, are also potentially influenced by past land supply and/or policies.

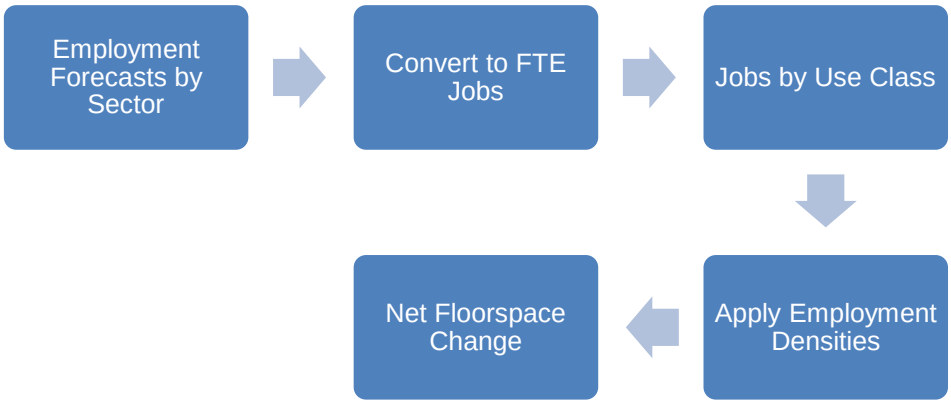
8.1.5 Ultimately therefore an appropriate approach is therefore to utilise a range of different forecasting techniques alongside local intelligence and an understanding of the merits of different approaches in drawing conclusions. This approach of

triangulating different approaches and testing findings, which Iceni adopts, is consistent with the PPG.

8.2 Labour Demand Model

8.2.1 Iceni has a standard model which considers how sectors relate to use classes which is used to estimate the proportion of employment in different broad use classes – offices (Eg(i) and E(g)(ii)), industrial (E(g)(iii) and B2) and warehousing (B8). We attribute changes in jobs to use classes first, using BRES data for Oxfordshire to estimate the sector-specific relationship between net changes in total employment and that for Full-Time Equivalent (FTE) jobs. Employment density assumptions are then applied to generate net floorspace change.

Figure 8:2: Overview of Labour Demand Modelling



Employment Growth Scenarios

8.2.2 The labour demand modelling considers two scenarios for employment growth:

a). Trend-based Scenario: this scenario is based on Cambridge Econometrics' latest 2022 baseline economic projections, (referred to as the Baseline Scenario);

b). Economic Development Led Scenario: this scenario is based on adjustments to the economic and sectoral outlook taking account of the LEP Investment Plan as outline in section 7 (referred to as the ED Scenario).

Iceni has sought to model the implications of these scenarios for future employment floorspace and land provision.

8.2.3 Iceni has calculated estimated Full-time Equivalent (FTE) jobs considering the profile of full-time and part-time roles by sector using BRES data. From this, changes in FTE jobs have been modelled. We then use a standard model to relate use classes to sectors. The results for the two growth scenarios in FTE jobs by Use Class are shown in Table 8.1 and 8.2.

Table 8.1: FTE Jobs Growth – Baseline Scenario, 2021-40

2021-40	Office	R&D	Industry	Warehousing
Cherwell	2115	1381	-739	842
Oxford City	1762	2732	-1354	308
South Oxfordshire	1629	2630	-435	326
Vale of White Horse	3146	1397	-609	624

West Oxfordshire	1295	742	-661	393
Oxfordshire	9947	8882	-3798	2493

Table 8.2: FTE Jobs Growth - ED Scenario, 2021-40

2021-40	Office	R&D	Industry	Warehousing
Cherwell	3194	1904	-122	1353
Oxford City	2891	4426	-1137	553
South Oxfordshire	2508	3301	-220	589
Vale of White Horse	4227	2154	-389	990
West Oxfordshire	1859	1023	-347	628
Oxfordshire	14680	12809	-2216	4113

8.2.4 The next stage in the modelling is then to apply employment densities to estimate the net change in floorspace. The employment density assumptions used are set out. These relate to the Gross External Area (GEA):

- Office – 12.5 sq.m per FTE job
- R&D – 28 sq.m per FTE job
- Industrial – 44 sq.m per FTE job
- Warehousing/ Distribution – 70 sq.m per FTE job

8.2.5 The employment density assumptions used in the core modelling have been applied to all of the Oxfordshire authorities. These are informed by the HCA Employment Densities Guide (3rd Edition) and the more science-based nature of Oxfordshire's economy. As part of preparing the HENA Report, Iceni has however engaged with the consultants working with both Oxford City and Cherwell District Councils on more local studies to consider further employment densities. The table below shows the variance in employment density assumptions used in different studies.

Employment Density Assumptions

	HENA	Oxford Interim ENA	Cherwell ENA
Office	**12.5**	12.5	12-13
R&D	**28**	46	60
Industrial	**44**	38-54	36-47
Warehousing	**70**	65	80

8.2.6 The employment density applied for R&D space of 28 sq.m per FTE job is used for R&D space. This is based on consideration of planning applications for research / science park locations in both Oxford and Cambridge; and is equivalent to a wet lab floorspace figure (with densities for dry labs more similar to offices). Planning application data more specific to Oxford is limited, but a recent assessment submitted by Savills for a lab development at Plots 23-26 Oxford Science Park assumes 29 sq.m NIA per FTE job for lab space (and 9.1 sq.m NIA for offices).[29]

[29] Application 22/02168/FUL

The employment densities adopted are relatively similar with those in local evidence for Oxford and Cherwell albeit that a blended rate is used for industrial herein[30]; with the analysis separating out the office and R&D sectors taking account of the particular strength of the latter. There is some uncertainty regarding labs densities, with the evidence drawn on here assuming that most R&D floorspace is of labs and taking account of specific application evidence in Oxford and similar markets which points to higher employment densities than in other studies. However sensitivity analysis is included based on higher densities for both Oxford and Cherwell reflecting local evidence studies. Further consideration of appropriate densities may be warranted in drawing conclusions on employment land provision in individual local plans.

8.2.7 Applying the core employment densities to the changes in FTE jobs envisaged results in a net need for employment floorspace is shown in Tables 8.3 and 8.4.

Table 8.3: Net Floorspace Needs (sq.m) – Labour Demand Baseline Scenario

2021-40	Office	R&D	Industry	Warehousing
Cherwell	26,440	38,670	-32,500	58,920
Oxford City	22,020	76,510	-59,570	21,570
South Oxfordshire	20,360	73,640	-19,160	22,820
Vale of White Horse	39,330	39,110	-26,810	43,660
West Oxfordshire	16,180	20,770	-29,080	27,540
Oxfordshire	124,330	248,700	-167,110	174,510

Table 8.4: Net Floorspace Needs (sq.m) – Labour Demand ED Scenario

2021-40	Office	R&D	Industry	Warehousing
Cherwell	39,920	53,320	-5,350	94,730
Oxford City	36,140	123,930	-50,040	38,710
South Oxfordshire	31,350	92,430	-9,690	41,250
Vale of White Horse	52,830	60,330	-17,130	69,270
West Oxfordshire	23,240	28,640	-15,280	43,940
Oxfordshire	183,500	358,640	-97,500	287,900

8.2.8 A sensitivity analysis on the employment densities for R&D space is included below. This uses a density of 43 sq.m per FTE jobs in Oxford and a figure of 60 sq.m per job for Cherwell taking account of the local employment land evidence. For Cherwell the higher density reflects R&D within the motorsports sector (including

[30] Rather than separate figures for light industrial and general industry as it is in practice very difficult to disaggregate these to separate sectors

testing and prototyping) which the local evidence considers requires densities more akin to B8 development.

Table 8.5: R&D Sensitivity Analysis (sq.m) – Baseline Scenario

2021-40	Core Assumptions	Sensitivity Analysis	Midpoint
Cherwell	38,670	82,860	60,765
Oxford City	76,510	117,500	97,000

Table 8.6: R&D Sensitivity Analysis (sq.m) – ED Scenario

2021-40	Core Assumptions	Sensitivity Analysis	Midpoint
Cherwell	53,320	114,250	83,785
Oxford City	123,930	190,320	157,125

8.3 VOA Net Floorspace Trends

8.3.1 The second modelling approach has been to take net changes in commercial floorspace from the Valuation Office Agency (VOA) data and model future trends. This works simply by considering net changes in floorspace over the most recent 5 year period (2016-21) and 10 year period (2011-21) and projecting these forward over the 19 year period to 2040.

Table 8.7: Net Office Floorspace Needs (sq.m) – VOA Trend Projection

	Historical Annual Net Change		Projection, 2021-40	
	5 Yr	10 Yr	5 Yr	10 Yr
Cherwell	-1,000	-1,100	-19,000	-20,900
Oxford	-1,000	900	-19,000	17,100
South Oxfordshire	-3,000	-2,000	-57,000	-38,000
Vale of White Horse	3,800	2,500	72,200	47,500
West Oxfordshire	600	-400	11,400	-7,600
Oxfordshire	-600	-100	-11,400	-1,900

Table 8.8: Net Industrial Floorspace Needs (sq.m) – VOA Trend Projection

	Historical Annual Net Change		Projection, 2021-40	
	5 Yr	10 Yr	5 Yr	10 Yr
Cherwell	20,600	11,200	391,400	212,800
Oxford	-5,000	-2,000	-95,000	-38,000
South Oxfordshire	4,000	2,800	76,000	53,200
Vale of White Horse	-400	700	-7,600	13,300
West Oxfordshire	5,800	500	110,200	9,500
Oxfordshire	25,000	13,200	475,000	250,800

8.4 Trends in Net Absorption

8.4.1 A third measure of stock changes which can be considered is net absorption. Here, Iceni has taken trends in net absorption of office and industrial/ logistics space from CoStar and has projected this forwards to 2040. We have done so at an Oxfordshire level, recognising local supply-side influences on district figures.

8.4.2 The net absorption projections for office space point to a need for between 168,000 – 214,000 sq.m of office floorspace as shown in Table 8.9.

Table 8.9: Projection of Office Net Absorption, Oxfordshire

Sq.m	Average Net Annual Net Absorption	Projection, 2021-40
5 Years	8,850	168,090
10 Years	11,250	213,720

8.4.3 For industrial and logistics floorspace, a need is generated for almost 1.3 million sq.m of space based on net absorption trends projecting forwards the 10 year trend; and almost 1.6 million sq.m of space using the 10 year trend.

Table 8.10: Projection of Industrial and Logistics Net Absorption, Oxfordshire

Sq.m	Average Net Annual Net Absorption	Projection, 2021-40
5 Years	67,660	1,285,560
10 Years	83,660	1,589,510

Specific figures for individual local authorities are shown in tables later in this section.

8.5 Completions Data

8.5.1 Next we consider evidence of past development trends. We have good quality monitoring data provided by the commissioning authorities – Cherwell and Oxford City.

Completions Trends in Cherwell

8.5.2 Table 8.11 shows projections of net completions of employment space by use in Cherwell. It shows projections based on 5 year trend data (2017-22), 10 year trends (2012-22) and 15 years (2007-22).

Table 8.11: Projections of Net Employment Floorspace Completions, Cherwell (2021-40)

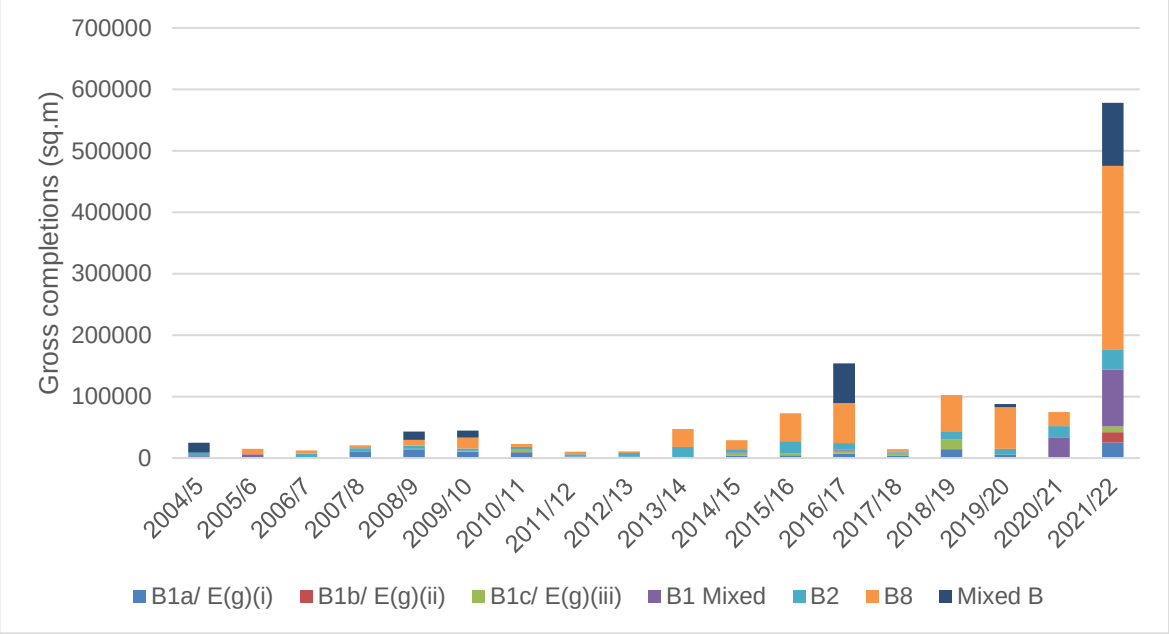
Sq.m	5 Yr Trend	10 Yr Trend	15 Yr Trend
B1a/ E(g)(i)	95,910	58,070	75,870
B1b/ E(g)(ii)	63,660	35,150	24,000
B1c/ E(g)(iii)	69,210	47,220	37,590
B1 Mixed	475,160	233,650	155,780
B2	275,640	179,540	94,050
B8	1,628,700	1,022,780	696,880
Mixed B	405,950	326,710	233,290
Total	3,014,220	1,903,120	1,317,470

8.5.3 As the chart in Figure 8.3 shows, the data is particularly influenced by very strong floorspace completions in 2021/22. This is driven in particular by recent B8 development.

8.5.4 Gross floorspace completions across uses are around 17% higher than the net figures (for the 10 yr trend scenario). This figure also holds true for industrial space. The net figures account for losses, but also redevelopment / intensification of existing employment sites. However the differential for office floorspace is significant, with gross new-build completions over the 10 year period more than double (210%) of the

net figure; as new-build development has taken place but older stock has been lost through redevelopment/conversion (most likely particularly to residential use).

Figure 8:3: Gross Floorspace Completions – Cherwell



Source: CBC Monitoring Data

Completions Trends in Oxford City

8.5.5 Projections of net completions of commercial space in Oxford are shown below. The 10 year trend shows a fairly static position for office floorspace; with the most positive need shown (regardless of the projection period) for E(g)(ii) R&D floorspace influenced by the lab market. The net position in all scenarios for industrial and warehousing development is negative.

Table 8.12: Projections of Net Employment Floorspace Completions, Oxford (2021-40)

Sq.m	5 Yr Trend	10 Yr Trend	15 Yr Trend
B1a/ E(g)(i)	-38,100	510	8,280
B1b/ E(g)(ii)	69,940	85,360	95,360
B1c/ E(g)(iii)	-45,500	-30,350	-18,670
B1 Mixed	31,530	7,540	5,000
B2	-9,040	-64,560	-97,140
B8	-91,170	-127,080	-115,730
Mixed B	-3,040	-1,960	-16,860
Total	-85,390	-130,550	-139,760

8.5.6 Gross completions for R&D floorspace are consistent to the net position; reflecting a position where there have not been losses in this use class.

8.5.7 Gross levels of industrial development historically in the City have been very modest, influenced by high land values and a lack of supply. Across industrial use classes, 10 year gross completions have been averaged c. 2,100 sq.m per annum. In comparison the net position is evidently negative.

Industrial completions trends in Oxford are influenced by the City's constrained land supply and net trends thus are likely to underplay the actual need. In particular for an urban area of its size, there is likely to be some need from manufacturing businesses for more modern floorspace; and a case for provision of space for last mile logistics.

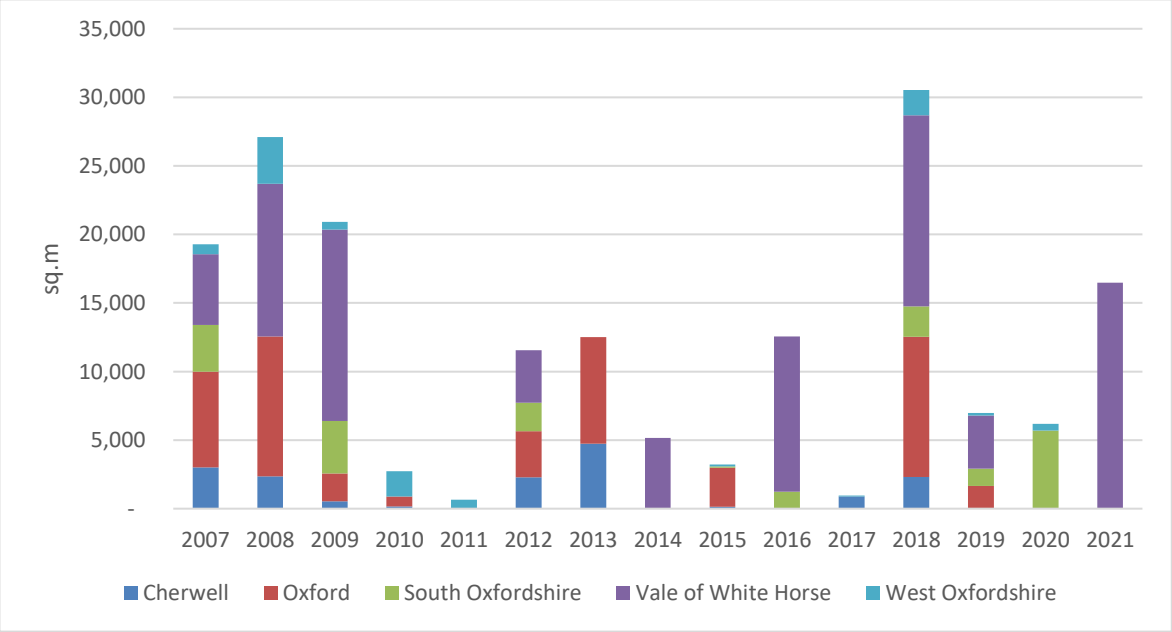
8.5.8 For offices, the 10 year net completions trend points to a position which is essentially flat (equating to a broadly static office stock overall in the City). However underlying this is a trend of development of new space, together with losses/conversion of older stock. Thus relative to the trends above, the 5 and 10 year gross trend would lead to development of between 53,200 – 64,500 sq.m respectively over the 2021-40 period. This does not necessarily however completely require new land.

Development Trends in Other Oxfordshire Authorities

8.5.9 Iceni does not have access to robust completions data for other Oxfordshire authorities. This principally reflects issues with the quality of monitoring data. To address these issues, we have instead sought to use CoStar data on 'deliveries' of new-build development; and 'net deliveries' which describe the difference between

8.5.10 The chart at Figure 8.4 shows development trends based on gross deliveries data from CoStar at an Oxfordshire-wide level. It shows that beyond Oxford, the main other office market is Vale of White Horse; with more limited levels of development in South Oxfordshire and West Oxfordshire.

Figure 8:4: Gross New-Build Office Development, Oxfordshire



Source: Iceni analysis of CoStar data

Specific data for individual authorities has been analysed and is set out in the tables in the next section.

8.6 Bringing the Different Modelling Approaches Together

8.6.1 Below we have sought to bring the figures generated by the different modelling approaches together. We look first at the results at an Oxfordshire level, and then for different authorities. Table 8.13 brings the different scenario modelling together.

Table 8.13: Net Floorspace Needs, Oxfordshire 2021-40

	Office	R&D	Industry	Ware-housing
Labour Demand Baseline Scenario	124,330	248,700	-167,110	174,510
Labour Demand ED Scenario	183,500	358,640	-97,500	287,900
VOA Net Floorspace Trends - 5Yr	-11,400		475,000	
VOA Net Floorspace Trends - 10Yr	-1,900		250,800	
Net Absorption - 5Yr	185,800		-2,650	1,124,710
Net Absorption - 10Yr	211,570		201,510	927,970
Net Deliveries - 5Yr Trend	198,460		29,600	1,132,290
Net Deliveries -10Yr Trend	166,110		84,520	750,780

8.6.2 Conclusions at an Oxfordshire wide level are helpful in ensuring consistency of approach. But it is appropriate to bring these together with more detailed local evidence/studies in informing planning assumptions for individual local plans; as such studies can refine judgements based on more detailed interrogation of local market dynamics and the quality/nature/level of supply in different areas and issues related to the quality of supply. For instance, assessment of the quality of sites may inform the iteration of assumptions on losses; whilst local evidence of appropriate employment densities may also be relevant.

8.6.3 For office space (E(g)(i)) in Oxfordshire:

- The labour demand model shows a level of need of between 124,300 – 183,500 (depending on the scenario selected). This builds in home-working on a sector-by-sector basis at 2020 levels. Past net absorption and delivery trends have been stronger, with the top end of the range sitting close to the 5 yr net absorption trend.

- However the pandemic has led to a notable shift in working patterns which can be expected to result in lower floorspace needs relative to the historical trend. There has been space coming onto the market in the short-term as companies downsize and this can be expected to moderate levels of new floorspace development (particularly short/medium-term); and indeed the labour demand model does not in itself make adjustments for these factors (in terms of the demand for and occupancy of existing stock).

- However the shift in employment patterns in office-based sectors can be expected to result in lower levels of net floorspace growth relative to historical trends, if the R&D sector is set aside. According to latest information from Savills, reporting on Remit Consulting data, national office occupancy at June 2022 is around 30% compared to around 70% pre pandemic, a substantial fall (although this data source is not considered fully representative). The British Council for Office (BCO) suggest that rates could settle at 60% in the longer term - although

again this could be potentially optimistic. Post covid there has certainly been a period – which continues based on market engagement – of a restructuring of corporate property portfolios and there are many examples of downsizing (with businesses reducing their office footprint on lease events) and this is evident in the Oxfordshire market.

However whilst office occupancy might fall, office utilisation may change to reflect the need for more meeting and break out space. The BCO suggest this could lead to a rise between 40% and 25%. Iceni agree that for some businesses this is likely to be the case, particularly those at the higher end of the market, but that across the market as a whole this could be ambitious including when taking into account co-working space. This increase in densities will not exceed the reduction made by the reduced occupancy, as otherwise this would lead to overall higher requirements for offices which seems counter intuitive.

- **On this basis we consider that the labour demand model should be the starting point for offices,** but this may be optimistic. Future needs could be 30-40% below this but it is perhaps too early to be definitive, and it will be important to monitoring trends over time.

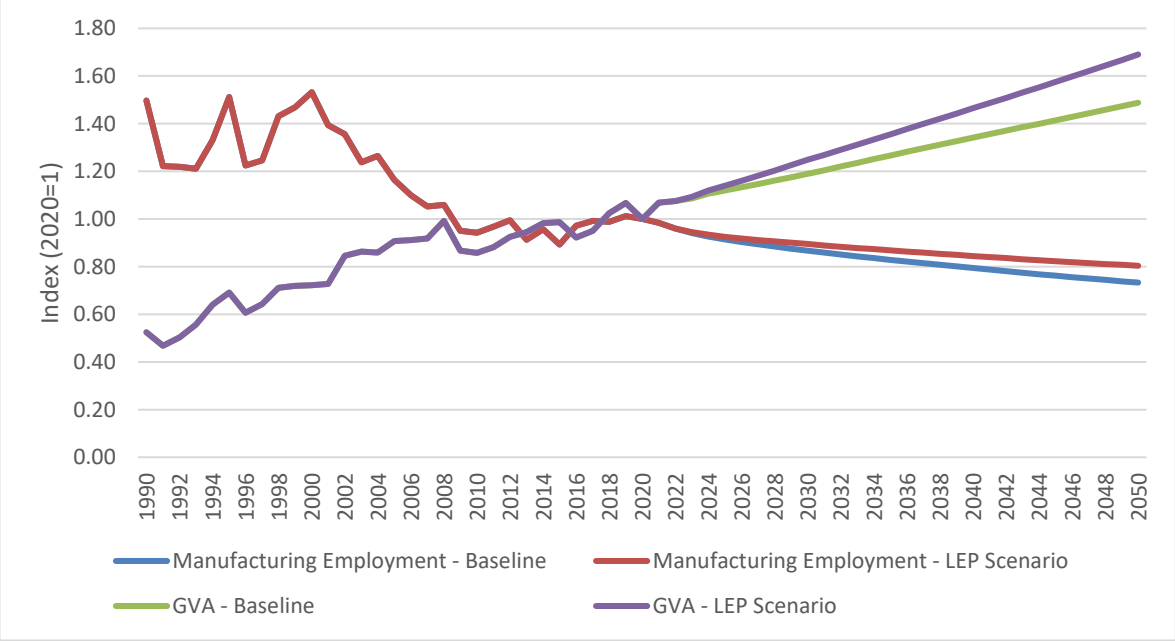
8.6.4 In contrast the R&D sector (E(g)(ii)) is particularly strong in Oxfordshire and exhibits potential for strong growth. **Iceni recommend that the labour demand scenario should therefore be used in planning for future R&D space; with the trend-scenario treated as a minimum level of provision; but consideration given to providing sufficient supply potential to enable the higher LEP Scenario to be achieved so as not to constrain growth.** In terms of employment densities, we would advise that the 'midpoint' scenario should be used as a core modelling assumption but further consideration should be given to appropriate densities through local evidence.

8.6.5 For industrial floorspace (E(g)(iii) and B2), Iceni has concerns about using the labour demand model, not least as trends in job numbers are projected to be downwards, the wider evidence points to growth in floorspace and positive net absorption (save for the most recent 5 yr trend). This is reinforced by consideration of what the LEFM model shows for GVA relative to employment, as shown below.

8.6.6 Manufacturing GVA has grown over the last decade, as has floorspace; even through employment numbers have been reasonably stable. The long-term trend is of falling employment, but increasing GVA (linked to increased automation as well as wider productivity improvements); and the forecasts point to growth in GVA.

8.6.7 Iceni's view is that for industrial floorspace, **it would be appropriate to plan for positive provision in line with the 10-year trends in net absorption**.

Figure 8:5: Comparing Past Trends and Forecast Employment and GVA Growth in Manufacturing in Oxfordshire



Source: Iceni analysis of CE forecasts data

8.6.8 For warehousing and distribution, labour demand modelling is typically a weak predictor or future floorspace needs as a significant component of demand arises from 'replacement demand' linked to the reprovision of older warehousing units (which typically have a 30-40 year lifespan). Similarly automation within the sector has a significant bearing on the relationship between floorspace and jobs, making accurate modelling from jobs forecasts problematic.

8.6.9 Iceni consider that greater weight should therefore be given to trends in net absorption. Market conditions in the very recent past have been buoyed by the shift

towards e-retailing and the effects of Brexit (on increasing stock holding requirements) and market conditions over the period since 2020 have been exceptionally strong. The shift in retailing from bricks and mortar to warehouses has accelerated with prospects of further growth. There is some emerging evidence of the market beginning to soften. **For the warehousing and logistics sector, we therefore consider that a 10 year trend in net absorption should be taken**. This points to a need for around 1 million sq.m of floorspace to 2040 across Oxfordshire.

The resultant net employment floorspace needs are shown in the Table 8.14.

Table 8.14: Net Employment Floorspace Needs (sq.m), 2021-40

Sq.m	Office	R&D	Industry	Warehousing
Cherwell - Low	26,440	60,770	65,380	549,640
Cherwell - High	39,920	83,790	65,380	549,640
Oxford - Low	22,020	97,000	21,320	44,030
Oxford - High	36,140	157,130	21,320	49,460
South - Low	20,360	73,640	44,910	93,740
South - High	31,350	92,430	44,910	93,740
Vale – Low	39,330	39,110	39,780	149,590
Vale – High	52,830	60,330	39,780	149,590
West – Low	16,180	20,770	30,120	90,970
West - High	23,240	28,640	30,120	90,970
Oxfordshire – Low	124,330	291,290	201,510	927,970
Oxfordshire - High	183,480	422,310	201,510	933,400

8.7 Net to Gross Adjustments

8.7.1 Net floorspace changes (as modelled above) can be expected to underestimate the overall volume of new development, as they take account of losses of employment floorspace. Evidently some redevelopment will take place on existing employment sites. However there can be losses of employment floorspace and land to other uses.

8.7.2 There are generally different approaches which can be used to considering losses, including:

- Analysis of past trend data and inclusion of assumptions on expected replacement provision;
- Appraisal of sites and consideration of what employment land might expect to be lost and what reprovision is appropriate to address this.

8.7.3 Iceni has not undertaken an assessment of existing supply, and the quality of this; and therefore is not in a position to draw firm conclusions on replacement provision. However we do have monitoring data on past losses and have therefore analysed this.

8.7.4 To provide a basis for drawing quantitative conclusions on overall needs in this report, we have projected forwards past losses and assumed a 50% replacement

rate. Individual authorities may wish to consider this further based on more detailed consideration of the quality of existing supply.[31]

8.7.5 For Cherwell and Oxford City we have had access to robust monitoring data on losses. This has therefore formed the basis for the calculations for these districts using data on losses over the last 10 years as shown in Table 8.15 and 8.16.

Table 8.15: Indicative Allowance for Replacement of Losses in Cherwell and Oxford, 2021-40

sqm	Office	R&D	Industrial	Warehouse
Cherwell	32011	0	61900	66226
Oxford	39873	124	14797	10057

8.7.6 In the absence of robust data it has not been possible to robustly estimate losses for other areas. We have therefore sought to indicatively consider potential losses (at 50% of the historic rate over the last 10 years) using CoStar data on demolitions. This is shown below, but should be reviewed as appropriate through local studies in these areas.

Table 8.16: Indicative Allowance for Replacement of Losses in Other Areas, 2021-40

	Office	Industrial
South Oxfordshire	15,920	36,305
Vale of White Horse	3,235	3,148
West Oxfordshire	794	1353

8.7.7 Replacement demand provision is a particular issue for the larger warehousing and distribution space. The average useful economic life of a warehouse building is typically around 30 years; however the capital value of stock built since 2000 means that over the plan period being considered there is little prospect of redevelopment of these units which would therefore more likely be refurbished.

8.7.8 Across Oxfordshire, there is c. 370,000 sq.m floorspace in larger warehousing units which is pre-2000. This suggests that the potential that replacement of older warehousing units could generate additional demand for new floorspace. However it is feasible that this could occur, at least in part, through the in situ redevelopment of existing warehousing units particularly where these are at locations which relate well to the strategic road network, have good public transport accessibility and sufficient power capacity. These are issues which would be appropriately be considered further through either a specific warehousing study or individual local employment land reviews.

8.8 Margin to Provide Choice and Flexibility of Supply

8.8.1 The final stage of the modelling has been to include a margin to ensure a flexible supply of employment land is maintained. This takes into account:

- The potential error margin associated with the forecasting process, and variance between different forecasting methodologies;

[31] The Oxford ELNA does not make assumptions on losses at this point but identifies this as an area where further work is required. The Cherwell EDNA assumes 100% replacement of losses based on historic trends from 2007-21

- The need to facilitate movement within the property market including the replacement of older outdated commercial space. The evidence points to tight market conditions, particularly for industrial provision, and case for providing some flexibility to allow vacancy levels to rise to market norms;

- The need for flexibility in the supply of land to allow for delays in individual sites coming forwards.

8.8.2 It is normally reasonable to make provision for a 5-year margin based on gross development trends over a 20 year plan period. However, as land supply is particularly constrained within Oxford City and given the scale of recent industrial and warehouse development in Cherwell, we would concur with a more limited 2-year margin, as shown in Table 8.17. Individual local studies may want to consider the appropriate margin further, having regard to the nature of different local markets and indicators such as vacancy rates and availability for different employment uses.

Table 8.17: Margin for Choice/ Flexibility

	Offices	Labs	Industrial	Warehouse
Oxford	6790	8980	3830	360
Cherwell	12850	3700	61500	155990
South Oxfordshire	2510		300	4170
Vale of White Horse	10920		630	14170
West Oxfordshire	550		560	13500

8.9 Overall Employment Land Needs

8.9.1 Drawing together the evidence of the net need, replacement allowance and margin, we have set out the overall employment floorspace and land needs generated in the tables below.

8.9.2 To calculate a land need, we have assumed a plot ratio of 0.4 for industrial and warehouse development. For offices and labs/R&D in Oxford we have assumed 60% in business parks with a density of 1, and 40% in town centre locations with a plot ratio of 1.5. This generates a blended plot ratio of 1.2. In other areas (i.e. beyond Oxford City), we have assumed a plot ratio of 0.4 reflecting the balance towards business park development. The results are shown in Table 8.18.

Table 8.18: Total Floorspace Needs, 2021-40

	Office	R&D	Industry	Ware-housing	Total
Cherwell - Low	65,240	69,750	131,110	616,230	882,330
Cherwell - High	78,720	92,770	131,110	616,230	918,830
Oxford - Low	74,750	100,820	97,610	210,080	483,260
Oxford - High	88,870	160,950	97,610	215,510	562,940
South - Low	38,790	73,640	81,510	97,910	291,850
South - High	49,780	92,430	81,510	97,910	321,630
Vale – Low	53,480	39,110	43,560	163,760	299,910
Vale – High	58,570	60,330	43,230	153,760	315,890
West – Low	17,530	20,770	32,040	104,470	174,810

West – High	24,590	28,640	32,040	104,470	189,740
Oxfordshire - Low	249,780	304,090	385,830	119,2450	213,2150
Oxfordshire - High	300,520	435,120	385,500	118,7880	230,9020

Table 8.19: Total Employment Land Needs, 2021-40

	Office	R&D	Industry	Ware-housing	Total
Cherwell - Low	16.3	17.4	32.8	154.1	220.6
Cherwell - High	19.7	23.2	32.8	154.1	229.7
Oxford - Low	6.2	8.4	24.4	52.5	91.6
Oxford - High	7.4	13.4	24.4	53.9	99.1
South - Low	9.7	18.4	20.4	24.5	73.0
South - High	12.4	23.1	20.4	24.5	80.4
Vale - Low	13.4	9.8	10.9	40.9	75.0
Vale - High	14.6	15.1	10.8	38.4	79.0
West - Low	4.4	5.2	8.0	26.1	43.7
West - High	6.1	7.2	8.0	26.1	47.4
Oxfordshire - Low	50.0	59.2	96.5	298.1	503.8
Oxfordshire - High	60.3	82.0	96.4	297.0	535.6

8.9.3 The figures set out relate to needs over the 2021-40 period. To calculate what levels of allocations are required, individual authorities can consider their pipeline employment land commitments against this to identify what further or additional provision is required.

9 Affordable Housing Need

Introduction

9.1.1 This section provides an assessment of the need for affordable housing in Oxfordshire and the five constituent local authorities. It follows the methodology set out in Planning Practice Guidance and is structured to consider the need for social/ affordable rented housing; and secondly for affordable home ownership products.

9.1.2 The affordable needs assessment is based on housing costs at the point in time of the assessment. House prices used are based on those for the year to March 2022. Entry level housing costs at the time of the assessment are as follows:

Table 9.1: Lower Quartile Housing Costs, Year to March 2022

	1-bedroom	2-bedrooms	3-bedrooms	4-bedrooms	All dwellings
Cherwell	£141,000	£218,000	£295,000	£418,000	£250,000
Oxford	£215,000	£279,000	£391,000	£489,000	£335,000
South Oxon	£172,000	£239,000	£382,000	£549,000	£320,000
VoWH	£154,000	£211,000	£321,000	£458,000	£275,000
West Oxon	£166,000	£221,000	£323,000	£438,000	£269,500

Source: Land Registry and Internet Price Search

Rental costs for the same time period are as follows:

Table 9.2: Lower Quartile Market Rents, year to March 2022

	Cherwell	Oxford	South Oxon	VoWH	West Oxon	Oxford-shire
Room only	£412	£510	£500	£575	£430	£475
Studio	£600	£725	£597	£660	£595	£625
1-bedroom	£700	£918	£765	£765	£725	£775
2-bedrooms	£850	£1,125	£950	£925	£875	£950
3-bedrooms	£1,050	£1,350	£1,150	£1,100	£1,125	£1,150
4-bedrooms	£1,450	£1,900	£1,650	£1,500	£1,500	£1,600
All properties	£825	£1,050	£895	£850	£850	£900

Source: ONS

9.1.3 The affordable needs assessment compares housing costs to incomes. Median household incomes have been estimated as follows.

Table 9.3: Estimated Median Household Income, mid 2022

	Median income	As a % of County average

Cherwell	£44,200	95%
Oxford	£44,000	95%
South Oxon	£50,200	108%
VoWH	£47,100	102%
West Oxon	£46,500	100%
Oxfordshire	£46,300	-

Source: ONS Household Finances Survey

9.2 Need for Social/Affordable Rented Housing

9.2.1 The sections below work through the various stages of analysis to estimate the need for social/affordable housing in each local authority. Final figures are provided as an annual need (including an allowance to deal with current need). As per 2a-024 of the PPG, this figure can then be compared with likely delivery of affordable housing.

Current Need

9.2.2 In line with PPG paragraph 2a-020, the current need for affordable housing has been based on considering the likely number of households with one or more housing problems. The table below sets out the categories in the PPG and the sources of data being used to establish numbers. The PPG also includes a category where households cannot afford to own despite it being their aspiration – this category is considered separately in this report (under the title of the need for affordable home ownership).

Table 9.4: Main **sources** for assessing the current need for affordable housing

	Source	Notes
Homeless households (those in temporary accommodation	MHCLG Statutory Homelessness data	Household in temporary accommodation at end of quarter.
Households in overcrowded housing	Census table LC4108EW	Analysis undertaken by tenure and updated by reference to national changes (from the English Housing Survey (EHS))
Concealed households	Census table LC1110EW	Number of concealed families
Existing affordable housing tenants in need	Modelled data linking to past survey analysis	Excludes overcrowded households – tenure estimates updated by reference to the EHS
Households from other tenures in need	Modelled data linking to past survey analysis	

Source: PPG [2a-020]

9.2.3 It should be noted that there may be some overlap between categories (such as overcrowding and concealed households, whereby the overcrowding would be remedied if the concealed household moved). The data available does not enable analysis to be undertaken to study the impact of this and so it is possible that the figures presented include a small element of double counting (although this is likely to

be small). Additionally, some of the concealed households may be older people who have moved back in with their families and might not be considered as in need.

9.2.4 Table 9.5 shows the initial estimate of the number of households within each local authority with a current housing need. These figures are before any 'affordability test' has been applied to assess the ability of households to meet their own housing needs; and has been termed 'the number of households in unsuitable housing'. Overall, the analysis estimates that there are currently some 19,900 households living in unsuitable housing (or without housing).

Table 9.5: Estimated Number of Households Living in Unsuitable Housing – Oxfordshire

	Homeless/ concealed households	Households in overcrowded housing	Existing affordable housing tenants in need	Households from other tenures in need	Total
Cherwell	682	1,896	156	1,429	4,163
Oxford	965	3,856	268	1,878	6,967
South Oxon	535	1,436	140	1,238	3,349
VoWH	473	1,088	149	1,137	2,848
West Oxon	436	964	122	1,044	2,566
Oxfordshire	3,091	9,241	835	6,726	19,892

Source: MHCLG Live Tables, Census 2011 and Data Modelling

9.2.5 The data modelling next estimates housing unsuitability by tenure. From the overall number in unsuitable housing, households living in affordable housing are excluded (as these households would release a dwelling on moving and so no net need for affordable housing will arise). The analysis also excludes 90% of owner-occupiers under the assumption (which is supported by analysis of survey data) that the vast majority will be able to afford housing once savings and equity are taken into account.

9.2.6 A final adjustment is to slightly reduce the unsuitability figures in the private rented sector to take account of student-only households – such households could technically be overcrowded/living in unsuitable housing but would be unlikely to be allocated affordable housing (student needs are essentially assumed to be transient). Once these households are removed from the analysis, the remainder are taken forward for affordability testing.

9.2.7 Table 9.6 shows it is estimated that there are around 11,400 households living in unsuitable housing (excluding current social tenants and the majority of owner-occupiers) in Oxfordshire.

Table 9.6: Unsuitable Housing by Tenure and Number to Take Forward into Affordability Modelling (Oxfordshire)

	In Unsuitable Housing	Number to Take Forward for Affordability Testing
Owner-occupied	4,578	458
Affordable housing	3,996	0
Private rented	8,227	7,833
No housing (homeless/concealed)	3,091	3,091
Total	19,892	11,382

Source: MHCLG Live Tables, Census 2011 and Data Modelling

9.2.8 Having established this figure, it needs to be considered that a number of these households might be able to afford market housing without the need for subsidy. To consider this, the income data has been used, with the distribution adjusted to reflect a lower average income amongst households living in unsuitable housing which has been done drawing on data from the English Housing Survey.

9.2.9 Just over half of households with a current need are estimated to be likely to have insufficient income to afford market housing and so **the estimate of the total current need is around 6,300 households across the County** – much of the need estimated to be arising in the City. Table 9.7 shows how this is estimated to vary by local authority.

Table 9.7: Estimated Current Affordable Housing Need (for social/affordable rented housing)

	In unsuitable housing (taken forward for affordability test)	% Unable to Afford Market Housing (without subsidy)	Revised Gross Need (including Affordability)
Cherwell	2,467	51.8%	1,277
Oxford	4,081	62.5%	2,552
South Oxon	1,814	50.3%	913
VoWH	1,542	51.2%	790
West Oxon	1,478	51.4%	760
Oxfordshire	11,382	55.3%	6,292

Source: CLG Live Tables, Census 2011 and Data Modelling

9.2.10 The estimated figures shown above represents the number of households with a need currently. For the purposes of analysis, it is assumed that the local authorities would seek to meet this need over a period of time. To be consistent with the main period studied in the demographic projections (a ten-year period from 2022 to 2032) the need is annualised by dividing by 10 (to give an annual need for 629 dwellings across all areas). This does not mean that some households would be expected to wait 10-years for housing as the need is likely to be dynamic, with households leaving the current need as they are housed but with other households developing a need over time.

9.3 Newly Forming Households

9.3.1 The number of newly forming households has been estimated through demographic modelling with an affordability test also being applied. This has been undertaken by considering the changes in households in specific 5-year age bands relative to numbers in the age band below, 5 years previously, to provide an estimate of gross household formation.

9.3.2 In assessing the ability of newly forming households to afford market housing, data has been drawn from previous surveys undertaken nationally by JGC. This establishes that the average income of newly forming households is around 84% of the figure for all households. The analysis has therefore adjusted the overall household income data to reflect the lower average income for newly forming households. The adjustments have been made by changing the distribution of income by bands such that average income level is 84% of the all household average. In doing this it is possible to calculate the proportion of households unable to afford market housing. For the purposes of the need for social/affordable rented housing this will relate to households unable to afford to buy OR rent in the market.

9.3.3 The assessment suggests overall that around two-fifths of newly forming households will be unable to afford market housing (to rent privately) and this equates a total of 2,700 newly forming households will have a need per annum on average across the County – Table 9.8 provides a breakdown by local authority.

Table 9.8: Estimated Need for Social/Affordable Rented Housing from Newly Forming Households (per annum) – Oxfordshire

	Number of new households	% unable to afford	Annual newly forming households unable to afford to rent
Cherwell	1,523	43.3%	659
Oxford	1,000	56.7%	567
South Oxon	1,265	41.1%	520
VoWH	1,365	41.5%	567
West Oxon	863	42.3%	365
Oxfordshire	6,016	44.5%	2,678

Source: Projection Modelling/Affordability Analysis

Existing Households Falling into Affordable Housing Need

9.3.4 The second element of newly arising need is existing households falling into need. To assess this, information about past lettings in social/affordable rented has been used. The assessment looked at households who have been housed in general needs housing over the past three years – this group will represent the flow of households onto the Housing Register over this period. From this, newly forming households (e.g. those currently living with family) have been discounted as well as households who have transferred from another social/affordable rented property. An affordability test has also been applied. Following the analysis through suggests a need arising from 616 existing households each year across the County, with

approaching a third of these households being in Oxford. Table 9.9 below breaks this down by local authority.

Table 9.9: Estimated Need for Social/Affordable Rented Housing from Existing Households Falling into Need (per annum) – Oxfordshire

	Total Additional Need	% of Total
Cherwell	161	26.1%
Oxford	188	30.5%
South Oxon	88	14.3%
VoWH	110	17.8%
West Oxon	69	11.2%
Oxfordshire	616	100.0%

Source: Derived from a range of sources

Supply of Social/Affordable Rented Housing Through Relets

9.3.5 The future supply of affordable housing through relets is the flow of affordable housing arising from the existing stock that is available to meet future need. This focusses on the annual supply of social/affordable rent relets. The Practice Guidance suggests that the estimate of likely future relets from the social rented stock should be based on past trend data which can be taken as a prediction for the future. Information from CoRe has been used to establish past patterns of social housing turnover. The figures are for general needs lettings but exclude lettings of new properties and also exclude an estimate of the number of transfers from other social rented homes. These exclusions are made to ensure that the figures presented reflect relets from the existing stock.

9.3.6 On the basis of past trend data is has been estimated that 1,157 units of social/affordable rented housing are likely to become available each year moving forward for occupation by households in need. The full breakdown is shown in Table 9.10.

Table 9.10: Analysis of Past Social/Affordable Rented Housing Supply, 2018/19 – 2020/21 (average per annum) – Oxfordshire

	Total Lettings	% as Non-New Build	Lettings in Existing Stock	% Non-Transfers	Lettings to New Tenants
Cherwell	631	64.4%	407	70.7%	288
Oxford	509	92.7%	472	57.3%	270
South Oxon	524	62.2%	326	61.0%	199
VoWH	699	64.7%	452	57.3%	259
West Oxon	374	61.2%	229	61.9%	142
Oxfordshire	2,736	68.9%	1,885	61.4%	1,157

Source: CoRe/LAHS

9.3.7 The PPG model also includes the bringing back of vacant homes into use and the pipeline of affordable housing as part of the supply calculation. These have however not been included within the modelling in this report. Firstly, there is no evidence of any substantial stock of vacant homes (over and above a level that might be expected to allow movement in the stock). Secondly, with the pipeline supply, it is

not considered appropriate to include this as to net off new housing would be to fail to show the full extent of the need, although in monitoring it will be important to net off these dwellings as they are completed.

Net Need for Social/Affordable rented Housing

9.3.8 Table 9.11 shows the overall calculation of affordable housing need. The analysis shows that **there is a need for around 2,800 social or affordable rented homes per annum** across the area – an affordable need is seen in all local authorities. The net need is calculated as follows:

Net Need = Current Need (allowance for) + Need from Newly-Forming Households + Existing Households falling into Need – Supply of Affordable Housing

Table 9.11: Estimated Need for Social/Affordable Rented Housing by local authority (per annum)

	Current need	Newly forming households	Existing households falling into need	Total Gross Need	Relet Supply	Net Need
Cherwell	128	659	161	948	288	660
Oxford	255	567	188	1,010	270	740
South Oxon	91	520	88	700	199	501
VoWH	79	567	110	756	259	497
West Oxon	76	365	69	510	142	368
Oxfordshire	629	2,678	616	3,924	1,157	2,767

Source: Range of sources

9.4 Split Between Social and Affordable Rented Housing

9.4.1 Typically, there are two main types of rented affordable accommodation (social and affordable rented) with the analysis below initially considering what a reasonable split might be between these two tenures.

9.4.2 An analysis has been undertaken to compare the income distribution of households with the cost of different products. Data about average social and affordable rents has been taken from the Regulator of Social Housing (RSH) and this is compared with lower quartile and median market rents (from ONS data). This analysis, as set out in Tables 9.12 to 9.16, shows that social rents are lower than affordable rents; the analysis also shows that affordable rents are less than both lower quartile and median market rents – the data is fairly consistent across areas.

Table 9.12: Comparison of rent levels for different products – Cherwell (2020/21)

	Social rent	Affordable rent (AR)	Lower quartile (LQ) market rent	Median market rent	AR as % of LQ	AR as % of median
1-bedroom	£386	£549	£700	£780	78%	70%
2-bedrooms	£444	£681	£850	£950	80%	72%
3-bedrooms	£483	£768	£1,050	£1,200	73%	64%
4-bedrooms	£553	£984	£1,450	£1,688	68%	58%
All	£460	£703	£825	£975	85%	72%

Source: RSH and ONS

Table 9.13: Comparison of rent levels for different products – Oxford (2020/21)

	Social rent	Affordable rent (AR)	Lower quartile (LQ) market rent	Median market rent	AR as % of LQ	AR as % of median
1-bedroom	£418	£666	£918	£1,050	73%	63%
2-bedrooms	£500	£765	£1,125	£1,250	68%	61%
3-bedrooms	£556	£871	£1,350	£1,500	64%	58%
4-bedrooms	£613	£1,297	£1,900	£2,288	68%	57%
All	£498	£763	£1,050	£1,275	73%	60%

Source: RSH and ONS

Table 9.14: Comparison of rent levels for different products – South Oxfordshire (2020/21)

	Social rent	Affordable rent (AR)	Lower quartile (LQ) market rent	Median market rent	AR as % of LQ	AR as % of median
1-bedroom	£406	£617	£765	£825	81%	75%
2-bedrooms	£472	£750	£950	£1,025	79%	73%
3-bedrooms	£532	£923	£1,150	£1,350	80%	68%
4-bedrooms	£605	£1,133	£1,650	£2,200	69%	52%
All	£488	£787	£895	£1,100	88%	72%

Source: RSH and ONS

Table 9.15: Comparison of rent levels for different products – Vale of White Horse (2020/21)

	Social rent	Affordable rent (AR)	Lower quartile (LQ) market rent	Median market rent	AR as % of LQ	AR as % of median
1-bedroom	£396	£577	£765	£825	75%	70%
2-bedrooms	£450	£728	£925	£1,025	79%	71%
3-bedrooms	£516	£851	£1,100	£1,250	77%	68%
4-bedrooms	£578	£993	£1,500	£1,795	66%	55%
All	£470	£748	£850	£1,025	88%	73%

Source: RSH and ONS

Table 9.16: Comparison of rent levels for different products – West Oxfordshire (2020/21)

	Social rent	Affordable rent (AR)	Lower quartile (LQ) market rent	Median market rent	AR as % of LQ	AR as % of median
1-bedroom	£408	£586	£725	£775	81%	76%
2-bedrooms	£474	£731	£875	£940	84%	78%
3-bedrooms	£515	£846	£1,125	£1,295	75%	65%
4-bedrooms	£568	£1,066	£1,500	£1,895	71%	56%
All	£482	£748	£850	£1,000	88%	75%

Source: RSH and ONS

9.4.3 For the affordability test, a standardised average rent for each product has been used (based on the proportion of stock in each size category). Table 9.17 below suggests that around 30% of households who cannot afford to rent privately could afford an affordable rent, with a further 37% being able to afford a social rent (but not an affordable one). A total of 33% of households would need some degree of benefit support to be able to afford their housing (regardless of the tenure).

Table 9.17: Estimated need for affordable rented housing (% of households able to afford)

	Afford affordable rent	Afford social rent	Need benefit support	All unable to afford market
Cherwell	30%	36%	34%	100%
Oxford	35%	32%	33%	100%
South Oxon	26%	41%	32%	100%
VoWH	28%	39%	33%	100%
West Oxon	26%	39%	36%	100%
Oxfordshire	30%	37%	33%	100%

Source: Affordability analysis

9.4.4 The finding that only 30% of households can afford an affordable rent does not automatically lead to a policy conclusion on the split between the two types of housing. For example, many households who will need to access rented

accommodation will be benefit dependent and as such could technically afford an affordable rent – hence a higher proportion of affordable rented housing might be appropriate – indeed the analysis does identify a substantial proportion of households as being likely to need benefit support. On the flip side, providing more social rents might enable households to return to work more easily, as a lower income would potentially be needed to afford the lower social (rather than affordable) rent.

9.4.5 There will be a series of other considerations both at a strategic level and for specific schemes. For example, there may be funding streams that are only available for a particular type of housing, and this may exist independently to any local assessment of need. Additionally, there will be the consideration of the balance between the cost of housing and the amount that can be viably provided, for example, it is likely that affordable rented housing is more viable, and therefore a greater number of units could be provided. Finally, in considering a split between social and affordable rented housing it needs to be considered that having different tenures on the same site (at least at initial occupation) may be difficult – e.g. if tenants are paying different rent for essentially the same size/type of property and services.

9.4.6 On this basis, **it is not recommended that the Councils have a rigid policy for the split between social and affordable rented housing**, although the analysis is clear that both tenures of homes are likely to be required in all areas. On the basis of the analysis it would be sensible to provide at least a third of rented affordable housing at social rent levels, whilst 30-35% could be delivered at affordable rents. The appropriate proportion for the remainder of the rented affordable homes could be determined by local priorities – there is a case for higher provision of social rented properties, but this needs to be balanced against viability considerations.

9.5 Establishing a Need for Affordable Home Ownership

9.5.1 The Planning Practice Guidance confirms a widening definition of those to be considered as in affordable need; now including 'households which can afford to rent in the private rental market, but cannot afford to buy despite a preference for owning their own home'. However, at the time of writing, there is no guidance about how the number of such households should be measured.

9.5.2 The methodology used in this report therefore draws on the current methodology, and includes an assessment of current needs, and projected need (newly forming and existing households). The key difference is that in looking at affordability an estimate of the number of households in the 'gap' between buying and renting is used. There is also the issue of establishing an estimate of the supply of affordable home ownership homes – this is considered separately below.

9.5.3 The analysis has been developed in the context of First Homes with the Government proposing that 25% of all affordable housing secured through developer contributions should be within this tenure. A definition of First Homes (from the relevant PPG (70-001)) can be found later in this document.

Gross Need for Affordable Home Ownership

9.5.4 The first part of the analysis seeks to understand what the gap between renting

and buying actually means in the County – in particular establishing the typical incomes that might be required. The information about incomes required to both buy and rent in different locations has already been provided earlier in this section and so he discussion below is a broad example.

9.5.5 Using the income distributions developed (as set out earlier in this section) along with data about price and rents, it has been estimated that of all households living in the private rented sector, around 31% already have sufficient income to buy a lower quartile home, with 26% falling in the rent/buy 'gap'. The final 43% are estimated to have an income below which they cannot afford to rent privately (i.e. would need to spend more than the calculated threshold of their income on housing costs) although in reality it should be noted that many households will spend a higher proportion of their income on housing.

9.5.6 These figures have been based on an assumption that incomes in the private rented sector are around 88% of the equivalent figure for all households (a proportion derived from the English Housing Survey) and are used as it is clear that affordable home ownership products are likely to be targeted at households living in or who might be expected to access this sector (e.g. newly forming households).

9.5.7 Table 9.18 shows an estimate of the proportion of households living in the private rented sector who are able to afford different housing products by local authority. This shows a higher proportion of households in the rent/buy gap in South Oxfordshire. Lower figures can be seen in Cherwell and Oxford.

Table 9.18: Estimated proportion of households living in Private Rented Sector able to buy and/or rent market housing – Oxfordshire

	Can afford to buy OR rent	Can afford to rent but not buy	Cannot afford to buy OR rent
Cherwell	36%	23%	41%
Oxford	22%	23%	54%
South Oxon	30%	32%	39%
VoWH	34%	26%	39%
West Oxon	35%	25%	40%
Oxfordshire	31%	26%	43%

Source: Derived from Housing Market Cost Analysis and Affordability Testing

9.5.8 The finding that a significant proportion of households in the private rented sector are likely to have an income that would allow them to buy a home is also noteworthy and suggests that for many households, barriers to accessing owner-occupation are less about income/the cost of housing and more about other factors (which could for example include the lack of a deposit or difficulties obtaining a mortgage (for example due to a poor credit rating or insecure employment)). However, some households will choose to privately rent, for example as it is a more flexible option that may be more suitable for a particular household's life stage (e.g. if moving locations with employment).

9.5.9 To study current need, an estimate of the number of household living in the Private Rented Sector (PRS) has been established, with the same (rent/buy gap)

affordability test (as described above) then applied. The start point is the number of households living in private rented accommodation; as of the 2011 Census there were some 45,200 households living in the sector across the County. Data from the English Housing Survey (EHS) suggests that since 2011, the number of households in the PRS has risen by about 19% - if the same proportion is relevant to Oxfordshire then the number of households in the sector would now be around 53,700.

9.5.10 Additional data from the EHS suggests that 60% of all PRS households expect to become an owner at some point (32,200 households if applied to Oxfordshire) and of these some 40% (12,900 households) would expect this to happen in the next 2-years. These figures are taken as the number of households potentially with a current need for affordable home ownership before any affordability testing.

9.5.11 On the basis of income it is estimated that around 26% of the Private Rented Sector sit in the gap between renting and buying (varying depending on location). Applying this proportion to the above figures would suggest a current need for around 3,300 affordable home ownership units (328 per annum if annualised over a 10-year period).

9.5.12 In projecting forward, the analysis can consider newly forming households and also the remaining existing households who expect to become owners further into the future. Applying the same affordability test (albeit on a very slightly different income assumption for newly forming households) suggests an annual need from these two groups of around 2,058 dwellings (1,567 from newly forming households and 491 from existing households in the private rented sector).

9.5.13 Bringing together the above analysis suggests that there is a need for around 2,386 affordable home ownership homes (priced for households able to afford to rent but not buy) per annum across the County. This is before any assessment of the potential supply of housing is considered. These results are shown in Table 9.19.

Table 9.19: Estimated Gross Need for Affordable Home Ownership by local authority (per annum) – Oxfordshire

	Current need	Newly forming households	Existing households falling into need	Total Gross Need
Cherwell	61	355	91	507
Oxford	105	230	157	492
South Oxon	65	400	98	563
VoWH	51	363	76	489
West Oxon	46	220	69	336
Oxfordshire	328	1,567	491	2,386

Source: Range of sources

Potential Supply of Housing to Meet the Affordable Home Ownership Need and Net Need

9.5.14 As with the need for social/affordable rented housing, it is also necessary to consider if there is any supply of affordable home ownership products from the existing stock of housing. One source is likely to be resales of low cost home

ownership products with data from the Regulator of Social Housing showing a total stock in 2021 of 4,626 homes. If these homes were to turnover at the same rate seen for the social housing stock then they would be expected to generate around 126 resales each year. These properties would be available for these households and can be included as the potential supply.

9.5.15 In addition, it should be noted that the analysis looks at households unable to afford a lower quartile property price. By definition, a quarter of all homes sold will be priced at or below a lower quartile level. According to the Land Registry, in Oxfordshire there were a total of 9,120 resales (i.e. excluding newly-built homes) in the last year (year to March 2022) and therefore around 2,280 would be priced below the lower quartile. This is 2,280 homes that would potentially be affordable to the target group for affordable home ownership products and is a potential supply that is similar to the level of need calculated.

9.5.16 It is then possible to provide a best estimate of the supply of lower quartile homes that are bought by the target group of households (assumed to be first-time buyers). Whilst dated, a report by Bramley and Wilcox in 2010 (Evaluating requirements for market and affordable housing) noted that around 40% of first-time buyers with a mortgage buy at or below the lower quartile[32]. Other recent data suggests that first time buyers account for around half of home purchase loans[33] with a total of around 65% of all homes being bought with a loan (35% as cash buyers[34]).

9.5.17 Bringing this together would point to 32.5% of homes being bought by first-time buyers and around 13% of all homes being a lower quartile home bought by a first-time buyer (32.5% * 40%) – this would point to around half of all lower quartile sales as being to first-time buyers (as half of 25% is 12.5%). Therefore, for the purposes of estimating a 'need' half of all lower quartile sales are included in the supply.

9.5.18 We can therefore now provide three supply estimates which can be considered in the context of the estimated need. These are:

- Only count the supply from affordable home ownership resales (126 per annum);
- Include the supply from affordable home ownership and half of resales of lower quartile homes (1,266 per annum (1,140+126)); and
- Include the supply from affordable home ownership and all resales of lower quartile homes (2,406 per annum (2,280+126)).

9.5.19 Table 9.20 shows the estimated net need from applying these three supply scenarios. Only including the resales of AHO shows a need for 2,260 dwellings per annum and this reduces to a need for 1,120 per annum if 50% of lower quartile sales are included. If all lower quartile sales are included in the supply, then there is a small

[32] https://thinkhouse.org.uk/site/assets/files/1614/2010_20nhpau_202.pdf

[33] https://www.mortgagesolutions.co.uk/news/2022/01/24/first-time-buyer-numbers-rose-to-nearly-410000-in-2021/#:~:text=First%2Dtime%20buyers%20accounted%20for,39%20per%20cent%20in%202009

[34] https://www.ft.com/content/e0ad2830-094f-4e61-acaa-d77457e2edbb

surplus of affordable home ownership shown. Overall, the analysis shows it is difficult to conclude what the need for affordable home ownership is (and indeed if there is one).

Table 9.20: Estimated Need for Affordable Home Ownership (per annum)

	AHO resales only	AHO resales plus 50% of LQ sales	AHO resales plus 100% of LQ sales
Total gross need	2,386	2,386	2,386
LCHO supply	126	1,266	2,406
Net need	2,260	1,120	-20

Source: Range of sources

9.5.20 Focussing on the middle of the three scenarios above (50% of lower quartile sales) the table below shows a need for affordable home ownership in all. It should be noted that the areas where the need for AHO is highest (notably Oxford) also show a high need for rented affordable housing.

Table 9.21: Estimated Need for Affordable Home Ownership by sub-area (per annum)

	Total Gross Need	Supply	Net need
Cherwell	507	314	193
Oxford	492	175	317
South Oxon	563	294	269
VoWH	489	263	226
West Oxon	336	220	115
Oxfordshire	2,386	1,266	1,120

Source: Derived from a range of sources

9.6 Implications of the Analysis

9.6.1 Given the analysis above, it would be reasonable to conclude that there is a need to provide housing under the definition of 'affordable home ownership' – although this conclusion is based on only considering supply from resales of low cost home ownership and some resales of existing homes in the market. If supply estimates are expanded to include all market housing for sale below a lower quartile price then the need for AHO is less clear-cut.

9.6.2 Regardless, it does seem that there are many households in Oxfordshire who are being excluded from the owner-occupied sector. This can be seen by analysis of tenure change (Table 9.22), which saw the number of households living in private rented accommodation increasing by 48% from 2001 to 2011 (with the likelihood that there have been further increases since). Over the same period, the number of owners with a mortgage dropped by 11%. That said, some households will choose to privately rent, for example as it is a more flexible option that may be more suitable for a particular household's life stage (e.g. if moving locations with employment).

Table 9.22: Change in number of owner-occupiers with a mortgage and number of households in the private rented sector (2001-11)

	Owners with a mortgage				Private rented			
	2001	2011	Change	% change	2001	2011	Change	% change
Cherwell	25,376	21,791	-3,585	-14.1%	5,432	9,206	3,774	69.5%
Oxford	14,036	12,596	-1,440	-10.3%	10,784	15,634	4,850	45.0%
South Oxon	22,683	19,348	-3,335	-14.7%	5,199	7,211	2,012	38.7%
VoWH	19,045	17,046	-1,999	-10.5%	4,817	6,733	1,916	39.8%
West Oxon	15,874	15,226	-648	-4.1%	4,246	6,423	2,177	51.3%
Oxfordshire	97,014	86,007	-11,007	-11.3%	30,478	45,207	14,729	48.3%

Source: Census (2001 and 2011)

9.6.3 On this basis, and as previously noted, it seems likely in Oxfordshire that access to owner-occupation is being restricted by access to capital (e.g. for deposits, stamp duty, legal costs) as well as potentially some mortgage restrictions (e.g. where employment is temporary) rather than just being due to the cost of housing to buy (although this will also be a factor).

9.6.4 The NPPF indicates that 10% of all new housing (on larger sites) should be for affordable home ownership (in other words, if 20% of homes were to be affordable, then half would be affordable home ownership) unless this would exceed the level of affordable housing required in the area or significantly prejudice the ability to meet the identified affordable housing needs of specific groups. It is now the case that policy compliant planning applications would be expected to deliver a minimum of 25% affordable housing as First Homes (as a proportion of the total affordable housing), with Councils being able to specify the requirement for any remaining affordable housing (subject to at least 10% of all housing being for AHO). If for instance the AHO need of 193 per annum is compared to the 2021 Census adjusted figure for Cherwell of 1081 dpa, provision of 10% of homes on eligible sites for affordable home ownership would be justified as sufficient need is identified in line with NPPF Para 65.

9.6.5 Whilst there are clearly many households in the gap between renting and buying, they in some cases will be able to afford homes below lower quartile housing costs. That said, it is important to recognise that some households will have insufficient savings to be able to afford to buy a home on the open market (particularly in terms of the ability to afford a deposit) and low-cost home ownership homes – and shared ownership homes in particular – will therefore continue to play a role in supporting some households in this respect.

9.6.6 The evidence points to a clear and acute need for rented affordable housing for lower income households, and it is important that a supply of rented affordable housing is maintained to meet the needs of this group including those to which the authorities have a statutory housing duty. Such housing is notably cheaper than that available in the open market and can be accessed by many more households (some of whom may be supported by benefit payments). It is important in providing homes for those who have few other options.

9.6.7 There will also be a role for AHO on any 100% affordable housing schemes that may come forward (as well as through Section 106). Including a mix of both rented

and intermediate homes to buy would make such schemes more viable, as well as enabling a range of tenures and therefore potential client groups to access housing.

9.6.8 In addition, it should also be noted that the finding of a 'need' for affordable home ownership does not have any impact on the overall need for housing. It seems clear that this group of households is simply a case of seeking to move households from one tenure to another (in this case principally from private renting to owner-occupation); there is therefore no net change in the total number of households, or the number of homes required.

9.7 How Much Should Affordable Home Ownership Cost?

9.7.1 The analysis and discussion above suggest that there are a number of households likely to fall under the PPG definition of needing affordable home ownership (including First Homes) – i.e. in the gap between renting and buying – but that the potential supply of low-cost housing to buy makes it difficult to fully quantify this need. However, given the NPPF, the Councils are likely to need to consider some additional homes on larger sites as some form of affordable home ownership (AHO).

9.7.2 The analysis below focusses on the cost of discounted market sale (which would include First Homes) to make them genuinely affordable before moving on to consider shared ownership (in this case suggestions are made about the equity shares likely to be affordable and whether these shares are likely to be offered). It is considered that First Homes and shared ownership are likely to be the main affordable home ownership tenures moving forward although it is accepted that some delivery may be of other products. This section also provides some comments about Rent to Buy housing.

9.7.3 The reason for the analysis to follow is that it will be important for the Councils to ensure that any affordable home ownership is sold at a price that is genuinely affordable for the intended target group – for example there is no point in discounting a new market home by 30% if the price still remains above that for which a reasonable home can already be bought in the open market.

Discounted Market Sales Housing (focussing on First Homes)

9.7.4 In May 2021, MHCLG published a new Planning Practice Guidance (PPG) regarding First Homes. The key parts of this guidance are set out below:

> *First Homes are a specific kind of discounted market sale housing and should be considered to meet the definition of 'affordable housing' for planning purposes. Specifically, First Homes are discounted market sale units which:*
>
> *a) must be discounted by a minimum of 30% against the market value;*
> *b) are sold to a person or persons meeting the First Homes eligibility criteria (see below);*
> *c) on their first sale, will have a restriction registered on the title at HM Land Registry to ensure this discount (as a percentage of current market value) and certain other restrictions are passed on at each subsequent title transfer; and,*

d) after the discount has been applied, the first sale must be at a price no higher than £250,000 (or £420,000 in Greater London).

First Homes are the government's preferred discounted market tenure and should account for at least 25% of all affordable housing units delivered by developers through planning obligations.

9.7.5 In terms of eligibility criteria, a purchaser should be a first-time buyer with a combined annual household income not exceeding £80,000 (or £90,000 in Greater London) and a mortgage needs to fund a minimum of 50% of the discounted purchase price. Local authorities can set their own eligibility criteria, which could for example involve lower income caps, a local connection test, or criteria based on employment status. Regarding discounts, a First Home must be sold at least 30% below the open market value. However, local authorities do have the discretion to require a higher minimum discount of either 40% or 50% (if they can demonstrate a need for this).

9.7.6 As noted above, the problem with having a percentage discount is that it is possible in some locations or types of property that such a discount still means that the discounted housing is more expensive than that typically available in the open market. This is often the case as new build housing itself attracts a premium. The preferred approach in this report is to set out a series of purchase costs for different sizes of accommodation which ensure these products are affordable for the intended group. These purchase costs are based on current lower quartile rental prices and also consideration of the income required to access the private rented sector and then estimating what property price this level of income might support (assuming a 10% deposit and a 4.5 times mortgage multiple). Below is an example of a calculation based on a 2-bedroom home in Cherwell:

- Previous analysis has shown that the lower quartile rent for a 2-bedroom home in Cherwell is £850 per month;
- On the basis of a household spending no more than 30% of their income on housing, a household would need an income of around £2.833 per month to afford (£850/0.30) or £34,000 per annum; and
- With an income of £34,000, it is estimated that a household could afford to buy a home for around £170,000. This is based on assuming a 10% deposit (mortgage for 90% of value) and a four and a half times mortgage multiple – calculated as £34,000*4.5/0.9.

9.7.7 Therefore, £170,000 is a suggested purchase price to make First Homes/discounted home ownership affordable for households in the rent/buy gap in Cherwell. This figure is essentially the equivalent price that is affordable to a household who can just afford to rent privately. In reality, there will be a range of incomes in the rent/buy gap and so some households could afford a higher price; however, setting all homes at a higher price would mean that some households will till be unable to afford.

9.7.8 On this basis, it is considered reasonable to look at the cost of First Homes as a range, from the equivalent private rent figure up to a midpoint of the cost of open market purchase and the relevant private rented figure (for a 2-bedroom home the lower quartile price is this is £218,000, giving a midpoint of £194,000). The use of a midpoint would mean that only around half of households in the rent/buy gap could afford, and therefore any housing provided at such a cost would need to also be supplemented by an equivalent number at a lower cost (which might include other tenures such as shared ownership).

9.7.9 Tables 9.23 to 9.27 therefore set out a suggested purchase price for affordable home ownership/First Homes in each area. The tables also show an estimated OMV and the level of discount likely to be required to achieve affordability. The OMV is based on taking the estimated lower quartile price by size and adding 15% (which is the typically newbuild premium seen nationally). It should be noted that the discounts are based on the OMV as estimated, in reality the OMV might be different for specific schemes and therefore the percentage discount would not be applicable. For example, if the OMV for a 2-bedroom home in Cherwell were to be £300,000 (rather than the modelled £251,000), the discount would be in the range of 35% and 43%.

9.7.10 On the basis of the specific assumptions used, the analysis points to a discount of around 30% for 2-bedroom homes and a figure of around 40% for larger (3+-bedroom) properties on the OMV to make homes genuinely affordable. **Given that a single discount figure is likely to needed for plan making purposes it is suggested that a 30% discount is reasonable in Cherwell, with the expectation that most First Homes will be 2-bedroom.**

9.7.11 Property values indicate it will not be viable to provide significant levels of larger properties as First Homes. In Oxford, given that First Home sales values are capped at £250,000, a 40% discount will be necessary to achieve sales values of under £250,000 in many instance and this is therefore an appropriate policy basis.

9.7.12 In doing so we recognise the more acute need for other forms of affordable housing, in particular for rented provision. Setting a discount for First Homes at a higher level would potentially impact negatively on viability and therefore reduce delivery of other forms of affordable homes which meet more acute needs. Given there is a cap of £250,000 on the purchase price, it seems unlikely that 3+-bedroom homes could be provided as First Homes in some locations (notably Oxford).

9.7.13 Oxford City Council has set out its policies for First Homes in its First Homes Policy Statement (TAN16, March 2022).

Table 9.23: Affordable home ownership prices – data for year to March 2022 – Cherwell

	Affordable Price	Estimated newbuild OMV	Discount required
1-bedroom	£140,000-£140,500	£162,200	13%-14%
2-bedrooms	£170,000-£194,000	£250,700	23%-32%
3-bedrooms	£210,000-£252,500	£339,300	26%-38%
4+-bedrooms	£290,000-£354,000	£480,700	26%-40%

Source: Derived from a range of sources

Table 9.24: Affordable home ownership prices – data for year to March 2022 – Oxford

	Affordable Price	Estimated newbuild OMV	Discount required
1-bedroom	£183,600-£199,300	£247,300	19%-26%
2-bedrooms	£225,000-£252,000	£320,900	21%-30%
3-bedrooms	£270,000-£330,500	£449,700	26%-40%
4+-bedrooms	£380,000-£434,500	£562,400	23%-32%

Source: Derived from a range of sources

Table 9.25: Affordable home ownership prices – data for year to March 2022 – South Oxfordshire

	Affordable Price	Estimated newbuild OMV	Discount required
1-bedroom	£153,000-£162,500	£197,800	18%-23%
2-bedrooms	£190,000-£214,500	£274,900	22%-31%
3-bedrooms	£230,000-£306,000	£439,300	30%-48%
4+-bedrooms	£330,000-£439,500	£631,400	30%-48%

Source: Derived from a range of sources

Table 9.26: Affordable home ownership prices – data for year to March 2022 – Vale of White Horse

	Affordable Price	Estimated newbuild OMV	Discount required
1-bedroom	£153,000-£153,500	£177,100	13%-14%
2-bedrooms	£185,000-£198,000	£242,700	18%-24%
3-bedrooms	£220,000-£270,500	£369,200	27%-40%
4+-bedrooms	£300,000-£379,000	£526,700	28%-43%

Source: Derived from a range of sources

Table 9.27: Affordable home ownership prices – data for year to March 2022 – West Oxfordshire

	Affordable Price	Estimated newbuild OMV	Discount required
1-bedroom	£145,000-£155,500	£190,900	19%-24%
2-bedrooms	£175,000-£198,000	£254,200	22%-31%
3-bedrooms	£225,000-£274,000	£371,500	26%-39%
4+-bedrooms	£300,000-£369,000	£503,700	27%-40%

Source: Derived from a range of sources

Shared Ownership

9.7.14 Whilst the Government has a clear focus on First Homes, they also see a continued role for Shared Ownership, launching a 'New Model for Shared Ownership' in early 2021 (following a 2020 consultation) – this includes a number of proposals, with the main one for the purposes of this assessment being the reduction of the minimum initial share from 25% to 10%. A key advantage of shared ownership over other tenures is that a lower deposit is likely to be required than for full or discounted purchase. Additionally, the rental part of the cost will be subsidised by a Registered Provider and therefore keeps monthly outgoings down.

9.7.15 For the purposes of the analysis in this report it is considered that for shared ownership to be affordable, total outgoings should not exceed that needed to rent

privately.

9.7.16 Because shared ownership is based on buying part of a property, it is the case that the sale will need to be at open market value. Where there is a large gap between the typical incomes required to buy or rent, it may be the case that lower equity shares are needed for homes to be affordable (at the level of renting privately). The analysis below therefore seeks to estimate the typical equity share that might be affordable for different sizes of property with any share lower than 10% likely to be unavailable. The key assumptions used in the analysis are:

- OMV at LQ price plus 15% (reflecting likelihood that newbuild homes will have a premium attached and that they may well be priced above a LQ level) – it should be noted that this is an assumption for modelling purposes and consideration will need to be given to the OMV of any specific product;
- 10% deposit on the equity share;
- Rent at 2.75% pa on unsold equity;
- Repayment mortgage over 25-years at 4%;
- Service charge of £100 per month for flatted development (assumed to be 1- and 2-bedroom homes); and
- It is also assumed that shared ownership would be priced for households sitting towards the bottom end of the rent/buy gap and so the calculations assume that total outgoings should be no higher than the equivalent private rent (lower quartile) cost for that size of property;

9.7.17 Tables 9.28 to 9.32 show that to make shared ownership affordable, equity shares in the region of 30% could work for most sizes of home in most locations, however, much lower shares are likely to be needed to make homes affordable for some dwelling sizes/locations (notably 3+-bedroom homes in South Oxfordshire). Overall, it is suggested that equity shares of around 30% should be considered but that it will be important to make sure the actual cost to the household is genuinely affordable in a local context.

9.7.18 It should also be noted that the analysis below is predicated on a particular set of assumptions (notably about likely OMV). In reality costs do vary across the area and will vary from site to site. Therefore, this analysis should be seen as indicative with specific schemes being tested individually to determine if the product being offered is genuinely (or reasonably) affordable.

Table 9.28: Estimated Affordable Equity Share by Size – Cherwell

	1-bedroom	2-bedrooms	3-bedrooms	4-bedrooms
OMV	£162,200	£250,700	£339,300	£480,700
Share	57%	28%	33%	29%
Equity Bought	£92,700	£71,200	£110,600	£141,600
Mortgage Needed	£83,500	£64,100	£99,500	£127,400
Monthly Cost of Mortgage	£441	£338	£526	£673
Retained Equity	£69,400	£179,500	£228,700	£339,100
Monthly Rent on Retained Equity	£159	£411	£524	£777
Service Charge per month	£100	£100	£0	£0
Total Cost per month	£700	£850	£1,050	£1,450

Source: Data based on Housing Market Cost Analysis

Table 9.29: Estimated Affordable Equity Share by Size – Oxford

	1-bedroom	2-bedrooms	3-bedrooms	4-bedrooms
OMV	£247,300	£320,900	£449,700	£562,400
Share	41%	37%	29%	44%
Equity Bought	£102,100	£117,800	£129,900	£248,600
Mortgage Needed	£91,900	£106,000	£117,000	£223,700
Monthly Cost of Mortgage	£485	£560	£618	£1,181
Retained Equity	£145,100	£203,100	£319,700	£313,800
Monthly Rent on Retained Equity	£333	£465	£733	£719
Service Charge per month	£100	£100	£0	£0
Total Cost per month	£918	£1,125	£1,350	£1,900

Source: Data based on Housing Market Cost Analysis

Table 9.30: Estimated Affordable Equity Share by Size – South Oxfordshire

	1-bedroom	2-bedrooms	3-bedrooms	4-bedrooms
OMV	£197,800	£274,900	£439,300	£631,400
Share	44%	33%	13%	13%
Equity Bought	£86,200	£89,600	£58,400	£82,700
Mortgage Needed	£77,600	£80,600	£52,600	£74,400
Monthly Cost of Mortgage	£410	£426	£278	£393
Retained Equity	£111,600	£185,200	£380,900	£548,600
Monthly Rent on Retained Equity	£256	£425	£873	£1,257
Service Charge per month	£100	£100	£0	£0
Total Cost per month	£765	£950	£1,150	£1,650

Source: Data based on Housing Market Cost Analysis

Table 9.31: Estimated Affordable Equity Share by Size – Vale of White Horse

	1-bedroom	2-bedrooms	3-bedrooms	4-bedrooms
OMV	£177,100	£242,700	£369,200	£526,700
Share	59%	45%	28%	23%
Equity Bought	£105,200	£109,200	£103,400	£119,000
Mortgage Needed	£94,700	£98,300	£93,000	£107,100
Monthly Cost of Mortgage	£500	£519	£491	£566
Retained Equity	£71,900	£133,500	£265,800	£407,700
Monthly Rent on Retained Equity	£165	£306	£609	£934
Service Charge per month	£100	£100	£0	£0
Total Cost per month	£765	£925	£1,100	£1,500

Source: Data based on Housing Market Cost Analysis

Table 9.32: Estimated Affordable Equity Share by Size – West Oxfordshire

	1-bedroom	2-bedrooms	3-bedrooms	4-bedrooms
OMV	£190,900	£254,200	£371,500	£503,700
Share	40%	31%	30%	28%
Equity Bought	£76,400	£78,300	£111,400	£140,500
Mortgage Needed	£68,700	£70,500	£100,300	£126,500
Monthly Cost of Mortgage	£363	£372	£530	£668
Retained Equity	£114,500	£175,900	£260,000	£363,200
Monthly Rent on Retained Equity	£262	£403	£596	£832
Service Charge per month	£100	£100	£0	£0
Total Cost per month	£725	£875	£1,125	£1,500

Source: Data based on Housing Market Cost Analysis

9.7.19 In policy terms, whilst the analysis has provided an indication of the equity shares possibly required by size, the key figure is actually the total cost per month (and how this compares with the costs to access private rented housing). For example, whilst the tables suggest a 28% equity share for 2-bedroom home in Cherwell, this is based on a specific set of assumptions. Were a scheme to come forward with a 28% share, but a total cost in excess of £850 per month, then it would be clear that a lower share is likely to be required to make the home genuinely affordable. Hence the actual share can only be calculated on a scheme-by-scheme basis. Any policy position should seek to ensure that outgoings are no more than can reasonably be achieved in the private rented sector, rather than seeking a specific equity share.

Rent to Buy

9.7.20 A further affordable option is Rent to Buy; this is a government scheme designed to ease the transition from renting to buying the same home. Initially (typically five years) the newly built home will be provided at the equivalent of an affordable rent (approximately 20% below the market rate). The expectation is that the discount provided in that first five years is saved in order to put towards a deposit on the purchase of the same property. Rent to Buy can be advantageous for some households as it allows for a smaller ‘step’ to be taken on to the home ownership ladder.

9.7.21 At the end of the five-year period, depending on the scheme, the property is either sold as a shared ownership product or to be purchased outright as a full market property. If the occupant is not able to do either of these then the property is vacated.

9.7.22 In order to access this tenure it effectively requires the same income threshold for the initial phase as a market rental property although the cost of accommodation will be that of affordable rent. The lower than market rent will allow the household to save for a deposit for the eventual shared ownership or market property. In considering the affordability of rent-to-buy schemes there is a direct read across to the income required to access affordable home ownership (including shared ownership), it should therefore be treated as part of the affordable home ownership products suggested by the NPPF.

9.8 Relationship with Overall Housing Need

9.8.1 The PPG encourages local authorities to consider increasing planned housing numbers where this can help to meet the identified affordable need. Specifically, the wording of the PPG [2a-024] states:

> *'The total affordable housing need can then be considered in the context of its likely delivery as a proportion of mixed market and affordable housing developments, given the probable percentage of affordable housing to be delivered by market housing led developments. An increase in the total housing figures included in the strategic plan may need to be considered where it could help deliver the required number of affordable homes'*

9.8.2 However, the relationship between affordable housing need and overall housing need is complex. This was recognised in the Planning Advisory Service (PAS) Technical Advice Note of July 2015. PAS conclude that there is no arithmetical way of combining the OAN (calculated through demographic projections) and the affordable need. There are a number of reasons why the two cannot be 'arithmetically' linked.

9.8.3 Firstly, the modelling contains a category in the projection of *'existing households falling into need'*; these households already have accommodation and hence if they were to move to alternative accommodation, they would release a dwelling for use by another household – there is no net need to provide additional homes. Secondly the modelling considers *'newly forming households'* – but these households are a direct output from the demographic modelling and are therefore already included in the overall housing need figures.

9.8.4 This just leaves the *'current need'*; however, much of this group will be similar to the existing households already described (in that they are already living in accommodation) although it is possible that a number will be households without housing (concealed and homeless households) – these households are not included in the demographic modelling and so are arguably an additional need, although uplifts for market signals/affordability (as included in the Government's Standard Method and the adjusted standard method calculations) would be expected to deal with such households.

9.8.5 Put simply, the scale of affordable housing need show is, to a significant degree, an issue of a **tenure imbalance** – in particular of households living in the Private Rented Sector who might otherwise have lived in social housing (had there been sufficient stock) or been able to move into the owner occupied sector (if they had sufficient earnings but particularly savings). In it in this context that the PPG section on the *Housing needs of different groups* outlines in [67-001]:

> ***How do the housing need of particular groups relate to overall housing need calculated using the standard method?***
>
> *The standard method for assessing local housing need identifies an overall minimum average annual housing need figure but does not break this down into the housing need of individual groups. This guidance sets out advice on how plan-making authorities should identify and plan for the housing needs of particular groups of people.*
>
> *This need may well exceed, or be proportionally high in relation to, the overall housing need figure calculated using the standard method.* ***This is because the needs of particular groups will often be calculated having consideration to the whole population of an area as a baseline as opposed to the projected new households which form the baseline for the standard method.*** *How can needs of different groups be planned for?*
>
> *Strategic policy-making authorities will need to consider the extent to which the identified needs of specific groups can be addressed in the area, taking into account:*
>
> - *the overall level of need identified using the standard method (and whether the evidence suggests that a higher level of need ought to be considered);*
> - *the extent to which the overall housing need can be translated into a housing requirement figure for the plan period; and*
> - ***the anticipated deliverability of different forms of provision, having regard to viability.***
>
> *Authorities must also consider the implications of their duties under the Equality Act 2010, including the Public Sector Equality Duty.*
>
> *Plan-making authorities should assess the need for housing of different groups and reflect this in planning policies.*
>
> *When producing policies to address the need of specific groups,* ***plan-making authorities will need to consider how the needs of individual groups can be addressed having regard to deliverability.***

> ***The household projections that form the baseline of the standard method are inclusive of all households*** *including travellers as defined in Planning policy for traveller sites.* ***(our emphasis)***

9.8.6 This clearly implies that whilst the affordable need may be proportionally high relative to overall housing need assessed based on demographic modelling and/or using the standard method, a high affordable housing need does not mean that there are additional households to be accommodated overall. It can be an issue of tenure imbalance. This is as the scale of affordable need is influenced by current stock (which is in turn influenced by historical delivery and funding to support affordable housing delivery and losses, such as through Right-to-Buy sales). This means that in theory affordable housing need could be met by buying up existing housing stock.

9.8.7 Policies for affordable housing provision in these terms can be set having regard to viability evidence; and the ability to meet the affordable housing need can be tempered by issues of deliverability. Nonetheless the affordable housing evidence is an element of the overall housing evidence which can inform judgements on what level of housing provision to plan for – and an authority may choose to set its housing target above that generated by the standard method (or indeed figures generated by other scenarios in this report) in order to boost the delivery of affordable housing.

9.8.8 The analysis estimates an annual need for 2,767 rented affordable homes across Oxfordshire, which is notionally 82% of a Local Housing Need of 3,388 dwellings per annum (as calculated using the Standard Method 2014 Scenario) or 59% of the need for 4,721 dwellings per annum as calculated using the 2021 Census Adjusted Scenario.[35] Table 9.33 sets out how this rented need equates to the adjusted housing need figures. The evidence suggests it is unlikely that the affordable housing need would be fully met not least as viability is unlikely to support over 50% affordable housing provision.

Table 9.33: Comparing Affordable Delivery and Need

	Oxford-shire	Cherwell	Oxford	South Oxon	VoWH	West Oxon
Social/ affordable rented need (pa)	2767	660	740	501	497	368
Overall Need (2021 Census Adjusted Scenario)(dpa)	4721	1081	1416	850	765	604
% Census Adjusted Need	59%	61%	52%	59%	65%	61%
AH Policy		30-35%	50%	40-50%	35%	35-50%
AH Delivery @ 30%	1416	324	425	255	230	181
AH Delivery @ 35%	1652	378	496	298	268	211
AH Delivery @ 40%	1888	432	566	340	306	242
AH Delivery @ 45%	2124	486	637	383	344	272
AH Delivery @ 50%	2361	541	708	425	383	302

[35] 2767 / 4721 = 59%

9.8.9 However it is possible to investigate this is some more detail by re-running the model and excluding those already living in accommodation. This is shown in the table below which identifies that **meeting these (minimum) needs would lead to an affordable need for 1,775 homes per annum across the County** – notionally 52% of the Standard Method, 40% of the CE Baseline Scenario or 38% of the 2021 Census Adjusted Scenario. This figure is theoretical and should not be seen to be minimising the need (which is clearly acute).

9.8.10 The analysis is arguably even more complex than this – it can be observed that the main group of households in need are newly forming households. These households are already included within demographic projections and so the demonstrating of a need for this group again should not be seen as over and above any need derived through the normal process of looking at need. Indeed, only the 254 per annum (current need) is in addition to demographic projections and this scale of uplift will already have been included in all the core scenarios taking account of uplifts for affordability and/or economic growth.

Table 9.34: Estimated Need for Social/Affordable Rented Housing by local authority (per annum) – excluding existing households

	Current need	Newly forming households	Existing households falling into need	Total Gross Need	Relet Supply	Net Need
Cherwell	55	659	0	714	288	426
Oxford	86	567	0	653	270	383
South Oxon	42	520	0	562	199	364
VoWH	37	567	0	604	259	345
West Oxon	34	365	0	399	142	258
Oxfordshire	254	2,678	0	2,932	1,157	1,775

Source: Range of sources

9.8.11 However if this model is taken forwards, it can be usefully used to consider the inter-relationship to the other evidence on housing needs. It does show what minimum affordable need is generated from looking at additional households specifically.

Table 9.35: Comparing Affordable Delivery and Minimum Need – CE Baseline Scenario

	Oxford-shire	Cherwell	Oxford	South Oxon	VoWH	West Oxon
Social/Affordable Rented Need	1775	426	383	364	345	258
Overall Need (CE Baseline Scenario)	4406	1009	1322	793	714	564
% Census Adjusted Figure	40%	42%	29%	46%	48%	46%
Current AH Policy		30-35%	50%	40-50%	35%	35-50%
AH Delivery @ 30%	1322	303	397	238	214	169
AH Delivery @ 35%	1542	353	463	278	250	197
AH Delivery @ 40%	1762	404	529	317	286	226
AH Delivery @ 45%	1983	454	595	357	321	254
AH Delivery @ 50%	2203	505	661	397	357	282

Table 9.36: Comparing Affordable Delivery and Minimum Need – 2021 Census Adjusted Scenario

	Oxford-shire	Cherwell	Oxford	South Oxon	VoWH	West Oxon
AHN from Additional Households	1775	426	383	364	345	258
Overall Need (2021 Census Adjusted Scenario)	4721	1081	1416	850	765	604
% Census Adjusted Figure	38%	39%	27%	43%	45%	43%
Current AH Policy		30-35%	50%	40-50%	35%	35-50%
AH Delivery @ 30%	1416	324	425	255	230	181
AH Delivery @ 35%	1652	378	496	298	268	211
AH Delivery @ 40%	1888	432	566	340	306	242
AH Delivery @ 45%	2124	486	637	383	344	272
AH Delivery @ 50%	2361	541	708	425	383	302

9.8.12 At 40% affordable delivery when using the 2021 Census Adjusted Scenario figures, the minimum affordable need would be met in all Oxfordshire authorities except the City. There is a much greater prospect of these needs being met. With a policy of 50% affordable housing provision, notionally 2,350 dpa would be needed to meet this minimum provision (or 3,938 dpa overall at 40% provision). Delivery above these levels would make in-roads into addressing the tenure imbalance.

9.8.13 The analysis is indicative and is set out with the intention of informing the setting of housing targets within local plans, alongside other components of this HENA report. In setting policies for affordable housing, in terms of the percentage requirement to be met through eligible development schemes, viability evidence will be a key driver.

9.8.14 Delivery of affordable housing through planning obligations is an important, but not the only means, of delivery affordable housing; and the Councils should also work with housing providers to secure funding to support enhanced affordable housing

delivery on some sites and through use of its own land assets.

9.8.15 There are however other issues which are important in considering the affordable need in context. It should be noted that the need estimate is on a per annum basis and should not be multiplied by the plan period to get a total need. Essentially, the estimates are for the number of households who would be expected to have a need in any given year (i.e. needing to spend more than 30% of income on housing).

9.8.16 In reality, some (possibly many) households would see their circumstances change over time such that they would 'fall out of need' and this is not accounted for in the analysis. One example would be a newly forming household with an income level that means they spend more than 30% of income on housing, as the household's income rises they would potentially pass the affordability test and therefore not have an affordable need. Additionally, there is the likelihood when looking over the longer-term that a newly-forming household will become an existing household in need and would be counted twice if trying to multiply the figures out for a whole plan period.

9.8.17 It is also relevant to recognise the role played by the Private Rented Sector (PRS) in providing housing for households who require financial support in meeting their housing needs should be recognised. Whilst the Private Rented Sector (PRS) does not fall within the types of affordable housing set out in the NPPF (other than affordable private rent which is a specific tenure separate from the main 'full market' PRS), it has evidently been playing a role in meeting the needs of households who require financial support in meeting their housing need. Government recognises this, and indeed legislated through the 2011 Localism Act to allow Councils to discharge their "homelessness duty" through providing an offer of a suitable property in the PRS.

9.8.18 Data from the Department of Work and Pensions (DWP) has been used to look at the number of Housing Benefit supported private rented homes. As of May 2022, it is estimated that there were around 12,000 benefit claimants in the private rented sector in Oxfordshire. From this, it is clear that the PRS contributes to the wider delivery of 'affordable homes' with the support of benefit claims, and further complicates any attempts to find a relationship between affordable need and overall housing need.

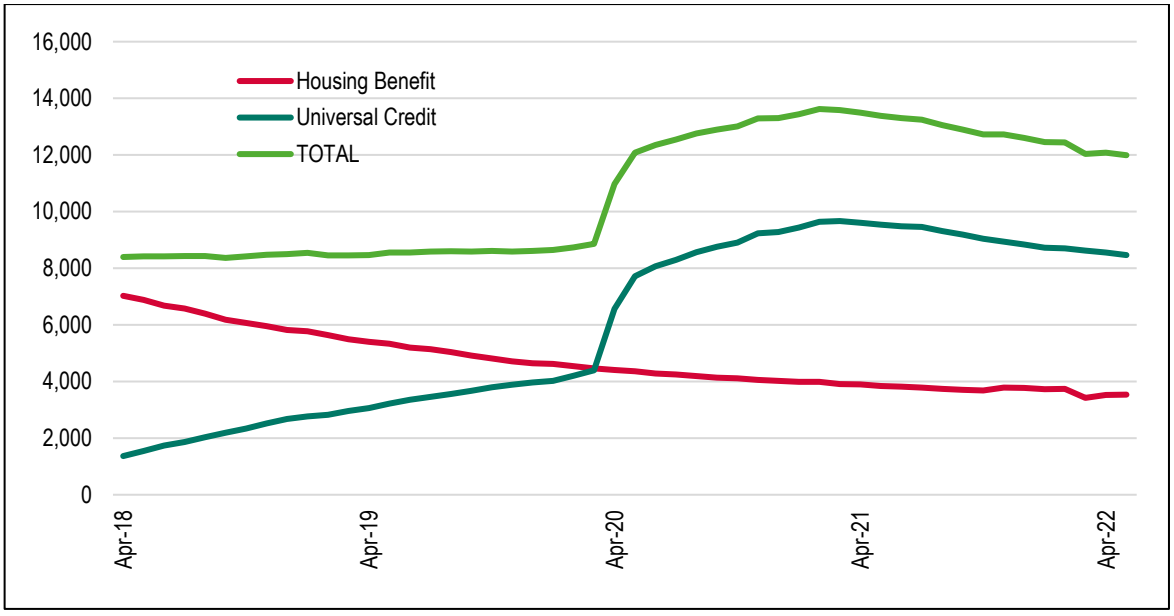
9.8.19 Table 9.36 shows the number of households in each authority claiming Housing Benefit or Universal Credit where there is a housing entitlement (in the PRS). The figure below the table shows the trend in the number of claimants for the whole County. This shows there has been a notable increase since March 2020, which is likely to be related to the Covid-19 pandemic. However, even the more historical data shows a substantial number of households claiming benefit support for their housing in the private sector (typically around 8,000-9,000 households).

Table 9.37: Number of Housing Benefit claimants in the private rented sector – local authorities (May 2022)

	Housing Benefit	Universal Credit (with housing allowance	TOTAL
Cherwell	732	2,447	3,179
Oxford	1,270	2,430	3,700
South Oxon	598	1,237	1,835
VoWH	438	1,262	1,700
West Oxon	497	1,094	1,591
Oxfordshire	3,530	8,465	11,995

Source: Department of Work and Pensions

Figure 9.38: Number of Housing Benefit claimants in the private rented sector – Oxfordshire



Source: Department of Work and Pensions

9.8.20 It is difficult to be precise about the annual level of new supply being provided by the private rented sector (supported by Housing Benefit) but data from the English Housing Survey for the past 5-years (2016-21) suggests around 7% of all private renting tenants are new to the sector in any given year. Assuming a similar proportion as being benefit claimants would imply around 840 benefit supported lettings across the County each year. A further 17% of private tenants move within the sector each year, which would imply around 2,040 benefit supported lettings (although it is likely that many of these households were claimants prior to moving home).

10 Housing Mix: Sizes and Types of Homes Needed

Introduction

This section considers the appropriate mix of housing needed, with a particular focus on the sizes of homes required in different tenure groups for new development. The analysis focuses on the two commissioning authorities – Cherwell and Oxford City.

10.1 Household Composition

10.1.1 There were 75,900 families as of the 2011 Census, accounting for 29% of households. This proportion is similar to the regional and national average. This analysis has drawn on 2011 Census data which is now somewhat out-of-date. However, it would be expected that general patterns between areas will remain broadly the same (i.e. areas with greater proportions of family households in 2011, will still be expected to have greater proportions now). New (2021) Census data should start to filter through later in 2022, which will allow for this analysis to be updated.

10.1.2 Table 10.1 shows relatively few family households in Oxford (27%) and a higher proportion in Cherwell; Oxford does however see a higher proportion of lone parent households than other locations.

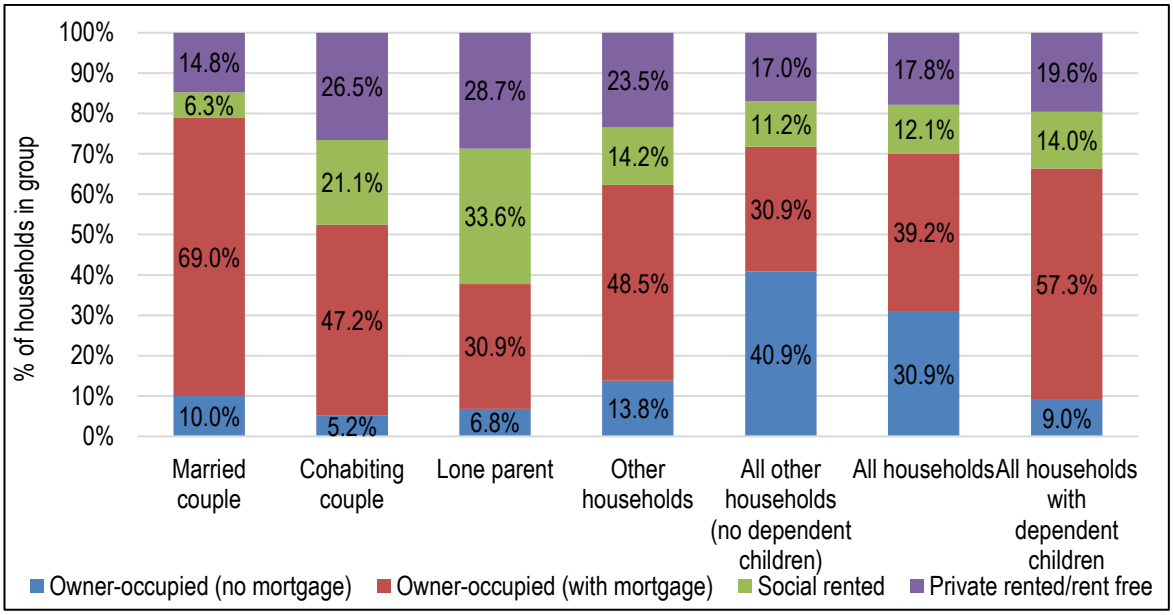
Table 10.1 Households with dependent children (2011) – local authorities

	Married couple	Cohabiting couple	Lone parent	Other household (with dependents)	All other households (no dependent children)	Total	Total with dependent children
Cherwell	18.9%	4.2%	5.9%	2.4%	68.6%	100.0%	31.4%
Oxford	13.6%	3.1%	7.1%	3.1%	73.2%	100.0%	26.8%
Oxfordshire	18.1%	3.6%	5.5%	2.2%	70.7%	100.0%	29.3%
South East	17.1%	3.9%	6.1%	2.3%	70.6%	100.0%	29.4%
England	15.3%	4.0%	7.1%	2.6%	70.9%	100.0%	29.1%

Source: Census (2011)

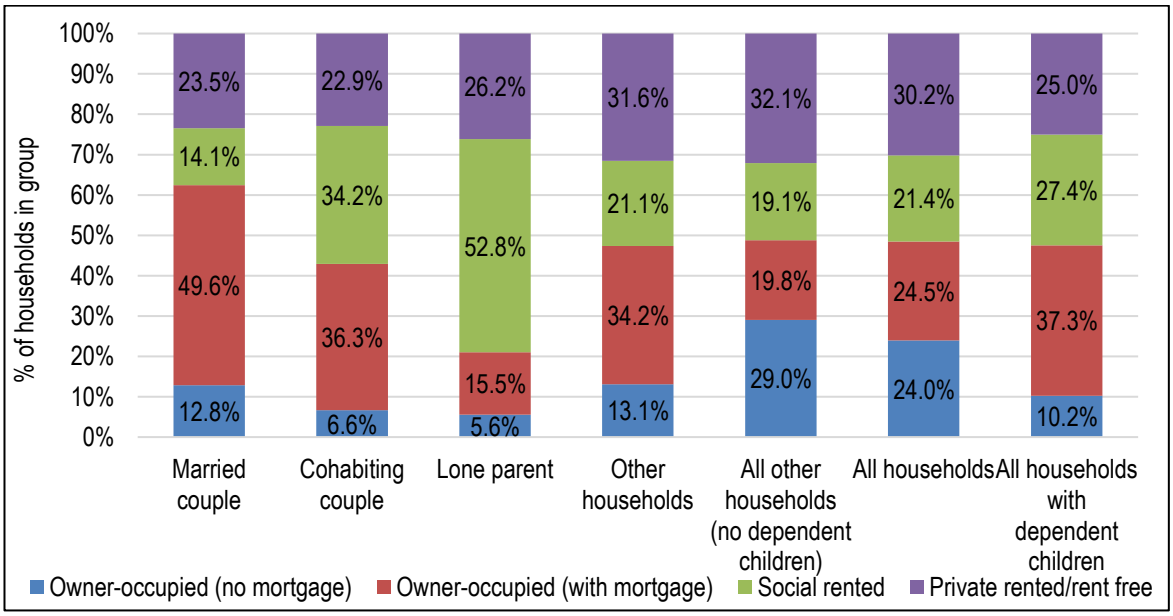
10.1.3 The figures below show the current tenure of households with dependent children in Cherwell and Oxford. For both areas there are some considerable differences by household type with lone parents having a very high proportion living in the social rented sector and also in private rented accommodation. In Cherwell, only 38% of lone parent households are owner-occupiers (21% in Oxford) compared with 79% (Cherwell) and 62% (Oxford) of married couples with children.

Figure 10.1a: Tenure of households with dependent children (2011) – Cherwell



Source: Census (2011)

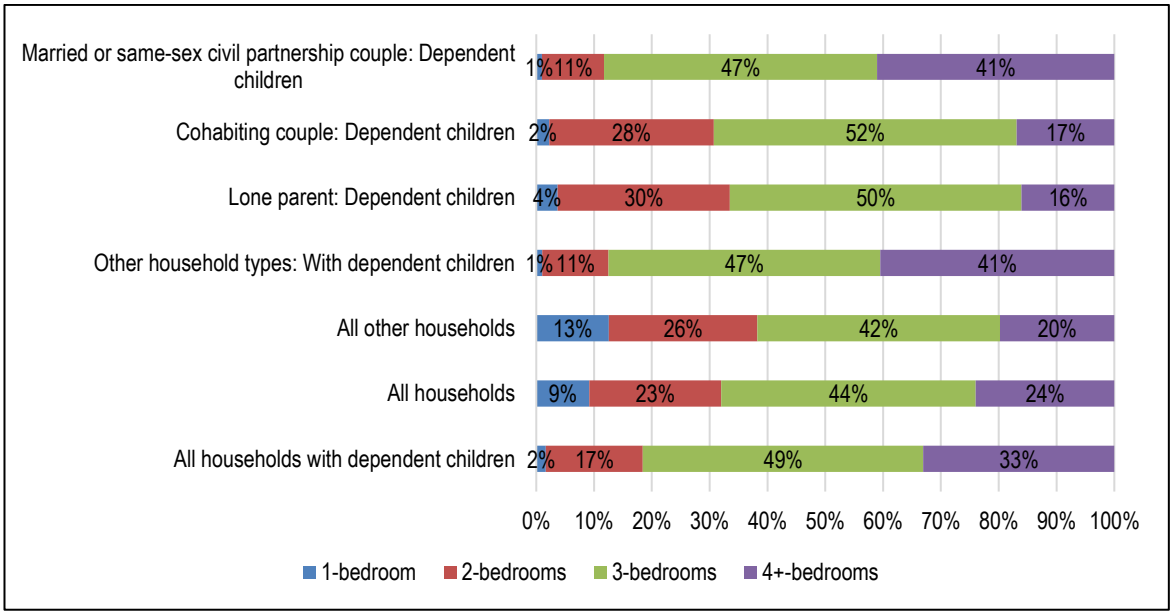
Figure 10.1b: Tenure of households with dependent children (2011) – Oxford



Source: Census (2011)

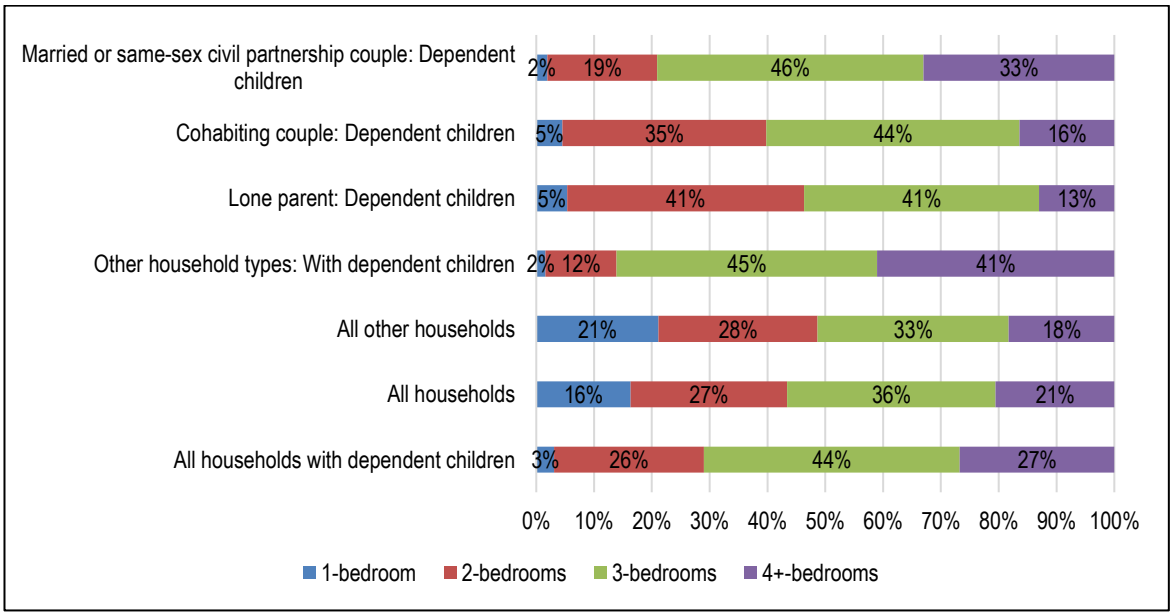
10.1.4 Figure 10.2 shows the number of bedrooms for family households at the point of the 2011 Census. The analysis shows the differences between married, cohabiting and lone parent families. Across the study area, the tendency is for family households to occupy 3-bedroom housing with varying degrees of 2-and 4+-bedroom properties depending on the household composition. The data also, unsurprisingly, highlights the small level of 1-bed stock occupied by families across the board. As a result, we could expect continued demand for 3+-bedroom homes from family households.

Figure 10.2a: Number of Bedrooms by Family Household Type, 2011 – Cherwell



Source: Census (2011)

Figure 10.2a: Number of Bedrooms by Family Household Type, 2011 – Oxford



Source: Census (2011)

10.2 The Mix of Housing

10.2.1 A model has been developed that starts with the current profile of housing in terms of size (bedrooms) and tenure. Information is available about the age of households and the typical sizes of homes they occupy. By using projections for demographic growth linked to core scenarios it is possible to see which age groups are expected to change in number, and by how much. On the assumption that occupancy patterns for each age group (within each tenure) remain the same, it is therefore possible to assess the profile of housing needed is over the assessment period (taken for the purposes of analysis to be the 2022-40 period).

10.2.2 An important starting point is to understand the current balance of housing in the area – Table 10.2 profiles the sizes of homes in different tenure groups across

areas. The data shows a generally similar profile of housing in each tenure group when compared with the regional and national position; one difference is a higher proportion of 4+-bedrooms homes in the private rented sector in Oxford (which will in part be linked to the student population). Observations about the current mix feed into conclusions about future mix later in this section.

Table 10.2 Number of Bedrooms by Tenure, 2011 – range of areas

		Cherwell	Oxford	Oxford-shire	South East	England
Owner-occupied	1-bedroom	4%	5%	4%	5%	4%
	2-bedrooms	18%	21%	19%	22%	23%
	3-bedrooms	47%	47%	44%	44%	48%
	4+-bedrooms	31%	27%	33%	30%	25%
	Total	100%	100%	100%	100%	100%
Social rented	1-bedroom	24%	31%	26%	32%	31%
	2-bedrooms	30%	33%	34%	33%	34%
	3-bedrooms	42%	31%	35%	31%	31%
	4+-bedrooms	4%	6%	5%	4%	4%
	Total	100%	100%	100%	100%	100%
Private rented	1-bedroom	20%	24%	19%	24%	23%
	2-bedrooms	37%	32%	35%	37%	39%
	3-bedrooms	32%	23%	30%	27%	28%
	4+-bedrooms	11%	21%	16%	12%	10%
	Total	100%	100%	100%	100%	100%

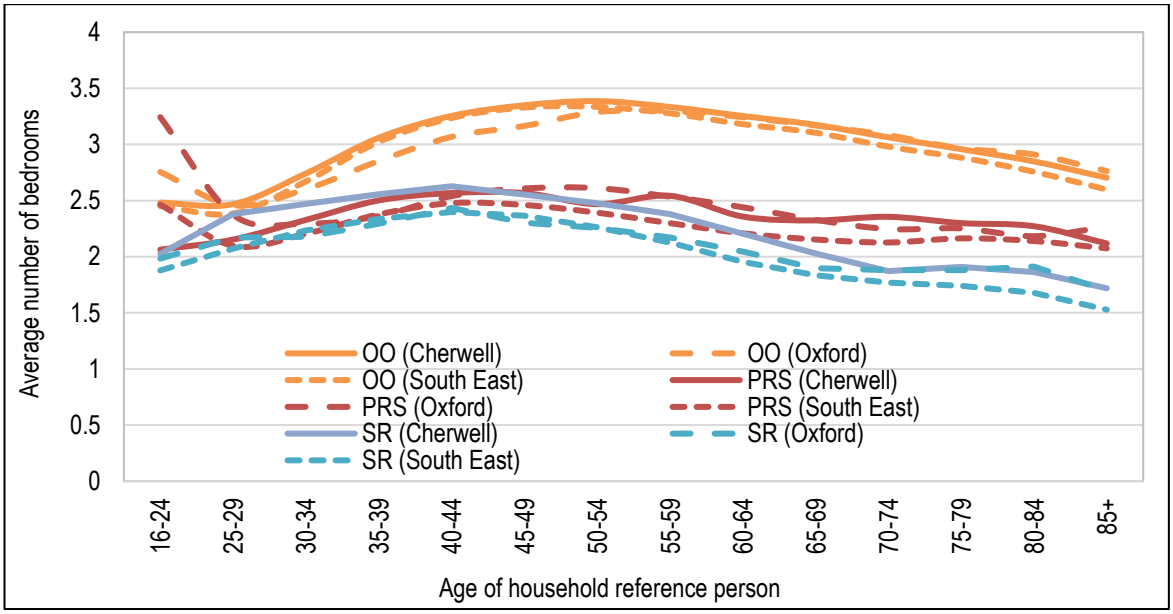
Source: Census (2011)

10.2.3 The method to consider future housing mix looks at the ages of the Household Reference Persons and how these are projected to change over time. However size of housing which households occupy relates more to their wealth and age than the number of people they contain – particularly for owner occupied homes. Equally issues of supply can also impact occupancy patterns, for example it may be that a supply of additional smaller bungalows (say 2-bedrooms) would encourage older people to downsize but in the absence of such accommodation these households remain living in their larger accommodation. The issue of choice is less relevant in the affordable sector (particularly since the introduction of the social sector size criteria) where households are allocated properties which reflect the size of the household, although there will still be some level of under-occupation.

10.2.4 The approach used is to interrogate information derived in the projections about the number of household reference persons (HRPs) in each age group and apply this to the profile of housing within these groups. The data for this analysis has been formed from a commissioned table by ONS (Table CT0621 which provides relevant data for all local authorities in England and Wales from the 2011 Census).

10.2.5 Figure 10.3 shows an estimate of how the average number of bedrooms varies by different ages of HRP and broad tenure group for Cherwell, Oxford and the South East. In the owner-occupied sector the average size of accommodation rises over time to typically reach a peak around the age of 45-50; a similar pattern (but with smaller dwelling sizes and an earlier peak) is seen in both the social and private rented sector. After peaking, the average dwelling size decreases – as typically some households downsize as they get older.

Figure 10.3 Average Bedrooms by Age and Tenure in Cherwell, Oxford and the South East



Source: Census (2011)

10.2.6 However, replicating the existing occupancy patterns at a local level would however result in the conclusions being skewed by the existing housing profile. On this basis the modelling applies regional occupancy assumptions for the South East region. Assumptions are applied to the projected changes in Household Reference Person by age.

The analysis has been used to derive outputs for three broad categories. These are:

- **Market Housing** – which is taken to follow the occupancy profiles in the owner-occupied sector;
- **Affordable Home Ownership** – which is taken to follow the occupancy profile in the private rented sector (this is seen as reasonable as the Government's desired growth in home ownership looks to be largely driven by a wish to see households move out of private renting); and
- **Rented Affordable Housing** – which is taken to follow the occupancy profile in the social rented sector. The affordable sector in the analysis to follow would include social and affordable rented housing.

10.2.7 The analysis for rented affordable housing can also draw on data from the local authority Housing Register with regards to the profile of need. The data has been taken from the Local Authority Housing Statistics ("LAHS") and shows a pattern of need which is focussed on 1- and 2-bedroom homes but also showing approaching a fifth of households as requiring 3+- bedroom homes.

Table 10.3 Breakdown of Housing Register by Current Bedroom Need, 2021

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Cherwell	46%	31%	16%	7%
Oxford	51%	28%	16%	6%
Oxfordshire	55%	27%	13%	5%

Source: Local Authority Housing Statistics, 2021

10.2.8 The modelling includes adjustments for under- and over-occupation to move some of those who would have been picked up in the modelling as under-occupying into smaller accommodation. Where there is under-occupation by 2 or more bedrooms, the adjustment takes 25% of this group and assigns to a '+1' occupancy rating and a further 12.5% (i.e. an eighth) to a '0' rating. For households with one spare bedroom, 12.5% are assigned to a '0' rating (with the others remaining as '+1'). These do need to be recognised as assumptions but can be seen to be reasonable as they do retain some degree of under-occupation (which is likely) but does also seek to model a better match between household needs and the size of their home. For overcrowded households a move in the other direction is made, in this case households are moved up as many bedrooms as is needed to resolve the problems.

Model Results

10.2.9 The tables below show the modelling outputs for Cherwell and Oxford and for each of the two scenarios (CE Baseline and 2021 Census Adjusted). It shows the greatest need for 2- and 3-bed properties in both areas and that the choice of scenario makes very little difference to the outcomes..

Table 10.4 Adjusted Modelled Mix of Housing by Size and Tenure – Cherwell (CE Baseline)

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Market	10%	36%	37%	17%
Affordable home ownership	25%	42%	25%	8%
Affordable housing (rented)	34%	34%	27%	5%

Source: Housing Market Model (with adjustments)

Table 10.5 Adjusted Modelled Mix of Housing by Size and Tenure – Cherwell (2021 Census Adjusted)

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Market	10%	36%	37%	17%
Affordable home ownership	25%	42%	25%	8%
Affordable housing (rented)	34%	35%	27%	5%

Source: Housing Market Model (with adjustments)

Table 10.6 Adjusted Modelled Mix of Housing by Size and Tenure – Oxford (CE Baseline)

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Market	11%	36%	37%	16%
Affordable home ownership	26%	39%	22%	14%
Affordable housing (rented)	32%	37%	25%	6%

Source: Housing Market Model (with adjustments)

Table 10.7 Adjusted Modelled Mix of Housing by Size and Tenure – Oxford (2021 Census Adjusted)

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Market	11%	36%	37%	16%
Affordable home ownership	26%	39%	22%	13%
Affordable housing (rented)	32%	37%	25%	6%

Source: Housing Market Model (with adjustments)

10.3 Indicative Targets for Different Sizes of Properties by Tenure

10.3.1 In drawing conclusions on the need for different sizes of homes it is important to take account of a range of factors, including the modelled outputs and an

understanding of the stock profile in different locations. The analysis (for rented affordable housing) also draws on the Housing Register data as well as taking a broader view of issues such as the flexibility of homes to accommodate changes to households (e.g. the lack of flexibility offered by a 1-bedroom home for a couple looking to start a family).

Social/Affordable Rented Housing

10.3.2 Bringing together the above, a number of factors are recognised, including that it is unlikely that all affordable housing needs will be met and that it is possible that households with a need for larger homes will have greater priority (as they are more likely to contain children). However there is also a possible need for 1-bedroom social housing arising due to homelessness (as well as a need other forms of accommodation e.g. foyer or supported housing). In taking any recommendations forward, the Councils will therefore need to consider any specific issues in their local area.

10.3.3 As noted, the conclusions also consider the Housing Register, but recognises that this will be based on a strict determination of need using the bedroom standard; there will be some households able to afford a slightly larger home or who can claim benefits for a larger home than they strictly need (i.e. are not caught by the spare room subsidy ('bedroom tax') – this will include older person households). The conclusions also take account of the current profile of housing in this sector (which for example shows a varying proportion of 1-bedroom homes in the current stock across areas).

10.3.4 It is suggested that the following mix of social/affordable rented housing (which is close to the modelled outputs) would be appropriate. The stronger need for 4+ bed properties in Cherwell reflects particularly long average waiting times for these sizes of homes reflecting the existing stock and turnover of this.

Table 10.8 Suggested Mix of Social/Affordable Rented Housing by area

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Cherwell	35-40%	25-30%	20-25%	10-15%
Oxford	35-40%	30-35%	20-25%	5-10%

Source: Conclusions drawn on a variety of sources

Affordable Home Ownership

10.3.5 In the affordable home ownership and market sectors a profile of housing that closely matches the outputs of the modelling is suggested (with some adjustments to take account of student households in Oxford). It is considered that the provision of affordable home ownership should be more explicitly focused on delivering smaller family housing for younger households. Based on this analysis, it is suggested that the following mix of affordable home ownership would be appropriate, and it can be noted that there really is very little difference in the recommendations across areas.

10.3.6 The profile of housing needed in this sector is generally for slightly larger homes than for the social/affordable rented sector – this will in part reflect the fact that some degree of under-occupation would be allowed in such homes. For 1-bedroom units, it needs to be recognised that the figures are driven by the modelling linked to demographic change; again, each Council may need to consider if the figures are appropriate on a local context. For example, in some areas Registered Providers find

difficulties selling 1-bedroom affordable home ownership homes and therefore the 1-bedroom elements of AHO might be better provided as 2-bedroom accommodation. Again it should be noted that the mix suggested for different locations shows relatively little variation.

Table 10.9 Suggested Mix of Affordable Home Ownership Housing by area

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Cherwell	20-25%	40-45%	25-30%	5-10%
Oxford	20-25%	40-45%	20-25%	10-15%

Source: Conclusions drawn on a variety of sources

Market Housing

10.3.7 Finally, in the market sector, a balance of dwellings is suggested that takes account of both the demand for homes and the changing demographic profile (as well as observations about the current mix when compared with other locations and also the potential to slightly reduce levels of under-occupancy). This sees a slightly larger recommended profile compared with other tenure groups – again there is little variation across areas.

Table 10.10 Suggested Mix of Market Housing by area

	1-bedroom	2-bedrooms	3-bedrooms	4+-bedrooms
Cherwell	5-10%	35-40%	35-40%	15-20%
Oxford	5-10%	35-40%	35-40%	15-20%

Source: Conclusions drawn on a variety of sources

10.3.8 The suggested figures on housing mix are derived at an Oxfordshire and local authority level. The suggested figures can be used as a monitoring tool to ensure that future delivery is not unbalanced when compared with the likely requirements as driven by demographic change in the area. The recommendations can also be used as a set of guidelines to consider the appropriate mix on larger development sites, and the Councils could expect justification for a housing mix on such sites which significantly differs from that modelled herein. Site location and area character are also however relevant considerations the appropriate mix of market housing on individual development sites.

10.4 Built Form

10.4.1 A final issue is a discussion of the need/demand for different built-forms of homes. In particular this discussion focusses on bungalows and the need for flats vs. houses.

Bungalows

10.4.2 The sources used for analysis in this report make it difficult to quantify a need/demand for bungalows in the County and constituent authorities as Census data (which is used to look at occupancy profiles) does not separately identify this type of accommodation. Data from the Valuation Office Agency (VOA) does however provide estimates of the number of bungalows (by bedrooms) although no tenure split is available.

10.4.3 The tables below show a notable proportion of homes in Cherwell are bungalows (9% of all flats and houses) but with a very low proportion in Oxford (just 1%). In Cherwell approaching half (46%) of bungalows have 2-bedrooms (and most of the rest have 3-bedrooms); a similar proportion (also 9%) of homes across England are bungalows. Across the whole of Oxfordshire, some 8.4% of all homes are bungalows.

Table 10.11 Number of dwellings by property type and number of bedrooms (March 2020) – Cherwell

	Number of bedrooms					All
	1	2	3	4+	Not Known	
Bungalow	880	2,860	2,020	460	10	6,230
Flat/Maisonette	4,350	3,600	170	40	20	8,170
Terraced house	1,050	6,100	8,930	1,360	30	17,470
Semi-detached house	250	3,090	12,140	2,510	50	18,030
Detached house	50	590	5,490	10,170	140	16,440
All flats/houses	6,580	16,240	28,750	14,540	250	66,340
Annexe	-	-	-	-	-	230
Other	-	-	-	-	-	290
Unknown	-	-	-	-	-	290
All properties	-	-	-	-	-	67,150

Source: Valuation Office Agency

Table 10.12 Number of dwellings by property type and number of bedrooms (March 2020) – Oxford

	Number of bedrooms					All
	1	2	3	4+	Not Known	
Bungalow	350	310	170	40	0	870
Flat/Maisonette	10,240	9,210	1,200	1,360	-	22,000
Terraced house	300	5,250	11,250	2,820	-	19,630
Semi-detached house	90	1,510	10,870	2,250	0	14,720
Detached house	40	240	1,500	2,370	10	4,160
All flats/houses	11,020	16,520	24,990	8,840	10	61,380
Annexe	-	-	-	-	-	100
Other	-	-	-	-	-	100
Unknown	-	-	-	-	-	160
All properties	-	-	-	-	-	61,740

Source: Valuation Office Agency

10.4.4 In general, discussions with local estate agents find that there is a demand for bungalows and in addition, analysis of survey data (in other locations) points to a high demand for bungalows (from people aged 65 and over in particular). Bungalows are often the first choice for older people seeking suitable accommodation in later life and there is generally a high demand for such accommodation when it becomes available (this is different from specialist accommodation for older people which would have some degree of care or support).

10.4.5 As a new build option, bungalows are often not supported by either house builders or planners (due to potential plot sizes and their generally low densities). There may, however, be instances where bungalows are the most suitable house type for a particular site; for example, to overcome objections about dwellings overlooking existing dwellings or preserving sight lines. There is also the possibility of a wider need/demand for retirement accommodation. Retirement apartments can prove very popular if they are well located in terms of access to facilities and services, and environmentally attractive (e.g. have a good view). However, some potential purchasers may find high service charges unacceptable or unaffordable and new build units may not retain their value on re-sale.

10.4.6 Overall, the Councils should consider the potential role of bungalows as part of the future mix of housing. Such housing may be particularly attractive to older owner-occupiers (many of whom are equity-rich) which may assist in encouraging households to downsize. However, the downside to providing bungalows is that they are often relatively land intensive which is likely to constrain delivery in Oxford in particular.

10.4.7 Bungalows are likely to see a particular need and demand in the market sector and also for rented affordable housing (for older people as discussed in the next section of the report). Bungalows are likely to particularly focus on 2-bedroom homes, including in the affordable sector where such housing may encourage households to move from larger 'family-sized' accommodation (with 3+-bedrooms). Where delivered, bungalows should be delivered as wheelchair-accessible (Part M(4)(3)(b)).

Flats vs. Houses

10.4.8 Although there are some 1-bedroom houses and 3-bedroom flats, it is considered that the key discussion on built-form will be for 2-bedroom accommodation, where it might be expected that there would be a combination of both flats and houses. At a national level, 81% of all 1-bedroom homes are flats, 35% of 2-bedroom homes and just 4% of homes with 3-bedrooms.

10.4.9 The table below shows (for 2-bedroom accommodation) the proportion of homes by tenure that are classified as a flat, maisonette or apartment in Oxfordshire and England. This shows a total of 31% of all bedroom homes as flats and would potentially point to the majority of 2-bedroom homes in the future also being houses. The analysis does however show a higher proportion of flats in the social and private rented sectors. It is considered that greater emphasis should be given to mix by dwelling size than type recognising the potential for built-form to vary in different locations.

10.4.10 This analysis is based on considering the current built-form in different tenures. Any decisions about the types of dwelling to be provided will need to take account of factors such as households type of those likely to occupy dwellings (where for example households with children will be more suited to a house than a flat). However, site characteristics may also play a role in deciding the most suitable built-form (e.g. city/town centre developments may be more suited to flats).

Table 10.13 Proportion of 2-bedroom homes that are a flat, maisonette or apartment (by tenure)

	Owner-occupied	Social rented	Private rented	All (2-bedroom)
Cherwell	12%	23%	33%	20%
Oxford	37%	63%	63%	54%
Oxfordshire	19%	40%	43%	31%
England	21%	48%	50%	35%

Source: 2011 Census

10.4.11 As noted, this analysis would suggest that most 2-bedroom homes should be built as houses (or bungalows) rather than flats. However, any decisions will still have to take account of site characteristics. Local evidence however also needs to be considered, and for instance 2+ bed rented affordable properties are particularly suitable for families who seek houses rather than flats.

10.5 Housing Needs of Older People and Those with Disabilities

10.5.1 This section studies the characteristics and housing needs of the

10.5.2 son population and the population with some form of disability. The two groups are taken together as there is a clear link between age and disability. It responds to Planning Practice Guidance on *Housing for Older and Disabled People* published by Government in June 2019. It includes an assessment of the need for specialist accommodation for older people and the potential requirements for housing to be built to M4(2) and M4(3) housing technical standards (accessibility and wheelchair standards).

Understanding the Implications of Demographic Change

10.5.3 The population of older persons is increasing, and this will potentially drive a need for housing which is capable of meeting the needs of older persons. The table below provides baseline population data about older persons. The population data has been taken from the 2021 Census and shows Oxfordshire has a similar age structure to other areas with 18% of the population being aged 65 and over.

Table 10.14 Older Persons Population, 2021

	Oxfordshire	Southeast	England
Under 65	82.1%	80.6%	81.6%
65-74	9.3%	10.2%	9.8%
75-84	6.1%	6.5%	6.1%
85+	2.5%	2.7%	2.4%
Total	100.0%	100.0%	100.0%
Total 65+	17.9%	19.4%	18.4%
Total 75+	8.6%	9.3%	8.6%

Source: 2011 Census

10.5.4 The table below shows the same information for the two commissioning authorities, this shows some notable variation in the proportion of people aged 65 and over, with a figure of 12% in Oxford, and almost 18% in Cherwell.

Table 10.15 Older Persons Population, 2021 – local authorities

	Cherwell	Oxford	South Oxon	VoWH	West Oxon	Oxford-shire
Under 65	82.5%	88.2%	79.5%	80.2%	78.4%	82.1%
65-74	9.4%	6.2%	10.4%	10.3%	11.1%	9.3%
75-84	5.7%	3.8%	7.3%	6.7%	7.4%	6.1%
85+	2.4%	1.7%	2.8%	2.8%	3.2%	2.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total 65+	17.5%	11.8%	20.5%	19.8%	21.6%	17.9%
Total 75+	8.1%	5.6%	10.1%	9.5%	10.5%	8.6%

Source: 2011 Census

Projected Future Change in the Population of Older People

10.5.5 Population projections can next be used to provide an indication of how the number of older persons might change in the future with the tables below showing that Oxfordshire is projected to see a notable increase in the older person population. Using the trend-based projection developed the increase in the population aged 65 and over is around 27% - the population aged Under 65 is in contrast projected to increase by just 3.2%. In total population terms, the projections show an increase in the population aged 65 and over of 36,200 people. This is against a backdrop of an overall increase of 55,600 – population growth of people aged 65 and over therefore accounts for 65% of the total projected population change.

10.5.6 In Cherwell the CE Baseline Forecast shows a 52.1% growth in the population aged over 65 while the population aged over 75 is expected to increase by 72.3%. In 2021 adjusted forecasts the equivalent figures are 53.2% and 73.5%

Table 10.16 Projected Change in Population of Older Persons, 2022 to 2040 – Cherwell (CE Baseline)

	2022	2040	Change in population	% change
Under 65	134,435	148,474	14,039	10.4%
65-74	15,592	21,000	5,409	34.7%
75-84	9,604	15,853	6,250	65.1%
85+	3,827	7,291	3,464	90.5%
Total	163,457	192,618	29,161	17.8%
Total 65+	29,022	44,144	15,122	52.1%
Total 75+	13,431	23,144	9,713	72.3%

Source: Demographic Projections

Table 10.17 Projected Change in Population of Older Persons, 2022 to 2040 – Cherwell (2021 Census Adjusted)

	2022	2040	Change in population	% change
Under 65	134,435	151,353	16,918	12.6%
65-74	15,592	21,165	5,574	35.7%
75-84	9,604	15,951	6,348	66.1%
85+	3,827	7,346	3,519	92.0%
Total	163,457	195,815	32,359	19.8%
Total 65+	29,022	44,463	15,441	53.2%
Total 75+	13,431	23,297	9,867	73.5%

Source: Demographic Projections

10.5.7 In Oxford City the CE Baseline Forecast shows a 48.6% growth in the population aged over 65 while the population aged over 75 is expected to increase by 57.2%. In 2021 adjusted forecasts the equivalent figures are 49.3% and 57.9%

Table 10.18 Projected Change in Population of Older Persons, 2022 to 2040 – Oxford (CE Baseline)

	2022	2040	Change in population	% change
Under 65	140,778	178,297	37,519	26.7%
65-74	10,213	14,389	4,177	40.9%
75-84	6,338	9,737	3,399	53.6%
85+	2,748	4,549	1,802	65.6%
Total	160,076	206,972	46,896	29.3%
Total 65+	19,298	28,675	9,377	48.6%
Total 75+	9,085	14,286	5,201	57.2%

Source: Demographic Projections

Table 10.19 Projected Change in Population of Older Persons, 2022 to 2040 – Oxford (2021 Census Adjusted)

	2022	2040	Change in population	% change
Under 65	140,778	182,307	41,528	29.5%
65-74	10,213	14,463	4,250	41.6%
75-84	6,338	9,773	3,436	54.2%
85+	2,748	4,570	1,822	66.3%
Total	160,076	211,113	51,036	31.9%
Total 65+	19,298	28,806	9,508	49.3%
Total 75+	9,085	14,343	5,258	57.9%

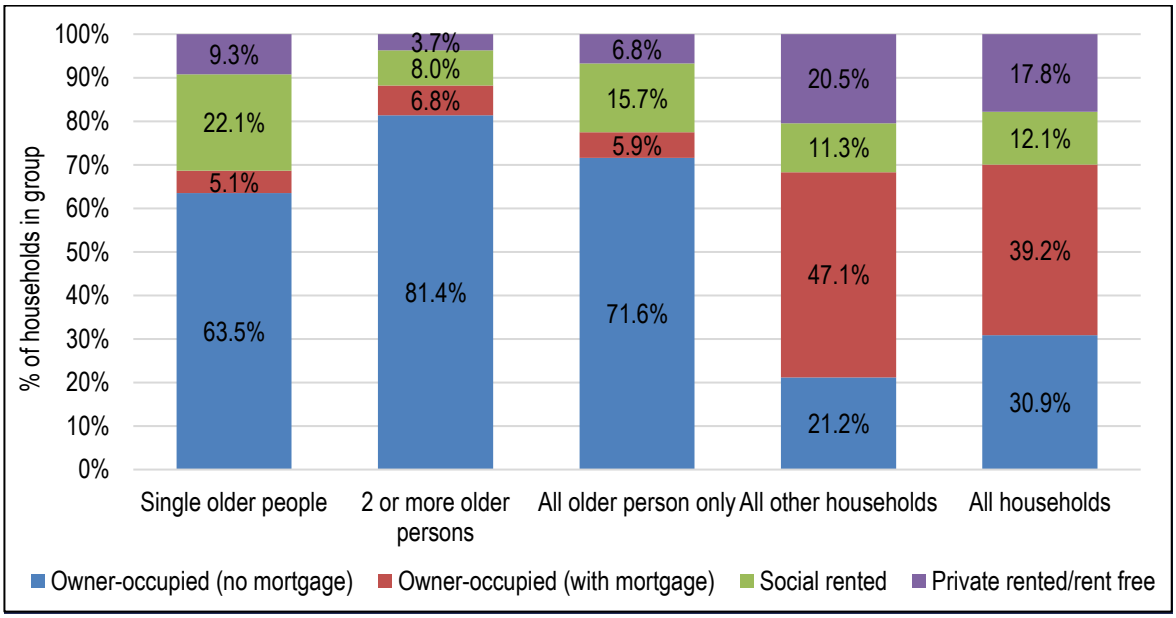
Source: Demographic Projections

10.6 Characteristics of Older Person Households

10.6.1 The figures below show the tenure of older person households. The data has been split between single older person households and those with two or more older people (which will largely be couples). The data shows that the majority of older persons households are owner occupiers (77% of older person households in Cherwell and 67% in Oxford), and indeed most are owner occupiers with no mortgage and thus may have significant equity which can be put towards the purchase of a new home. Some 16% (Cherwell) to 26% (Oxford) of older persons households across the study area live in the social rented sector; the proportion of older person households living in the private rented sector is relatively low (about 7% in both areas).

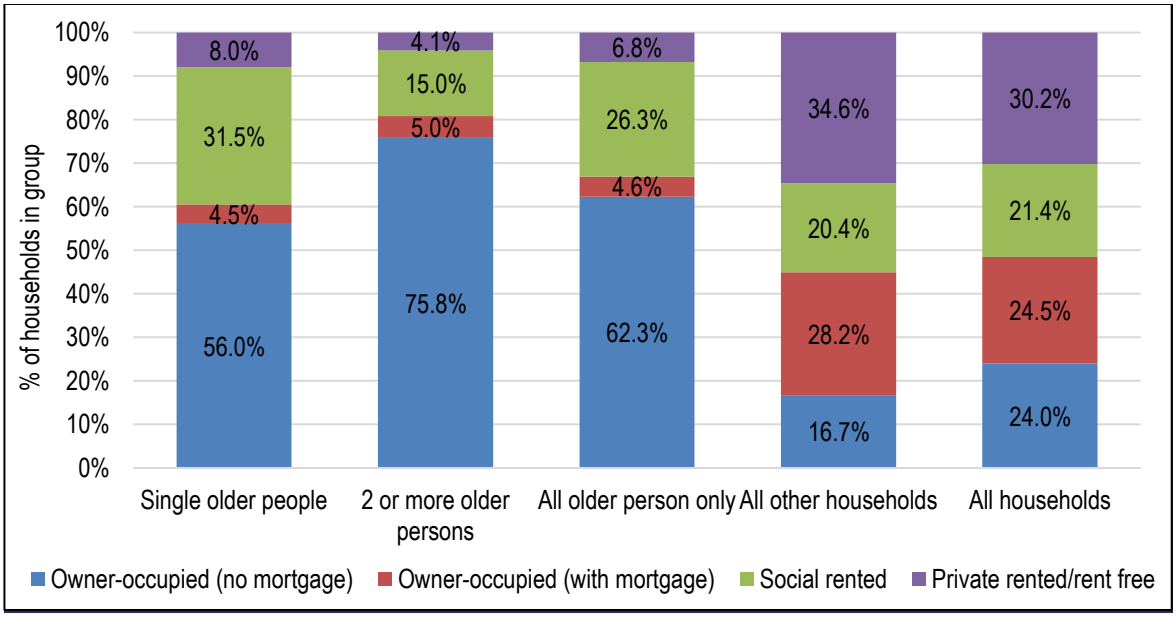
10.6.2 There are also notable differences for different types of older person households with single older people having a much lower level of owner-occupation than larger older person households – this group also has a much higher proportion living in the social rented sector.

Figure 10.4: Tenure of Older Persons Households in Cherwell, 2011



Source: 2011 Census

Figure 10.4: Tenure of Older Persons Households in Oxford, 2011



Source: 2011 Census

10.7 Prevalence of Disabilities

10.7.1 Table 10.20 below shows the proportion of people with a long-term health problem or disability (LTHPD) drawn from 2011 Census data, and the proportion of households where at least one person has a LTHPD. The data suggests that some 27% of households in Oxfordshire contain someone with a LTHPD. This figure is lower than seen regionally and nationally. The figures for the population with a LTHPD also typically show the same trends when compared with other locations – some 14% of the population having a LTHPD.

10.7.2 The analysis also shows some differences between different parts of the study area, with Oxford seeing the lowest proportion of population and households with a

LTHPD – this is likely to be linked to then younger age structure in the City. Both areas show levels of disability below both the regional and national average

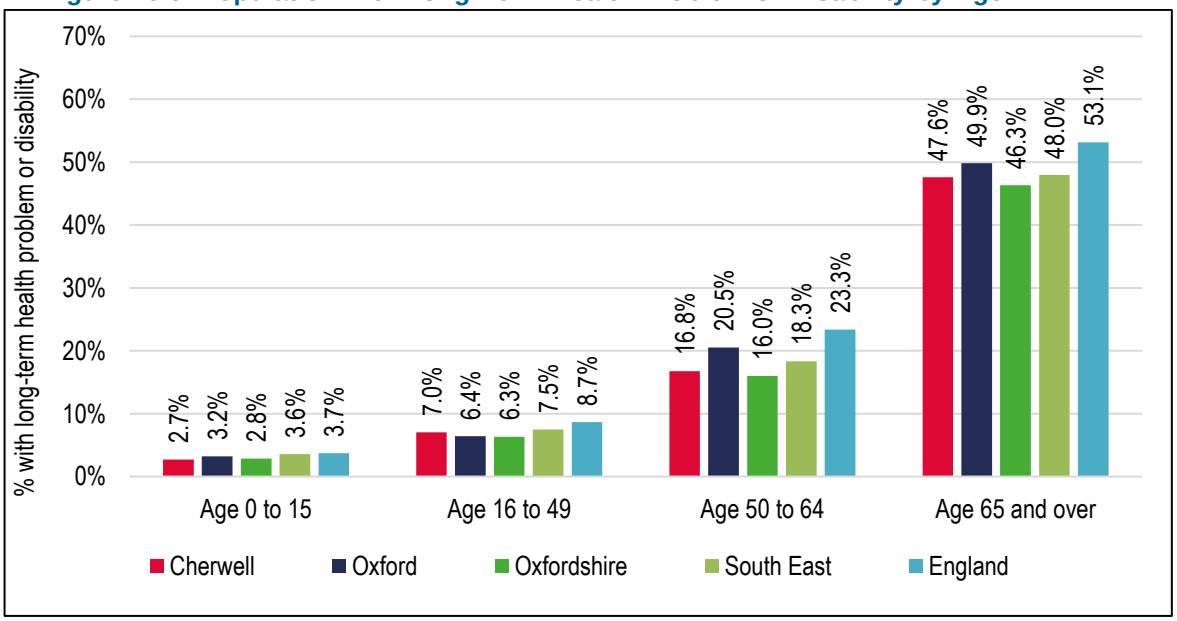
Table 10.20 Households and People with a Long-Term Health Problem or Disability, 2011

	Households Containing Someone with a Health Problem		Population with a Health Problem	
	No.	%	No.	%
Cherwell	15,670	27.6%	20,072	14.1%
Oxford	14,504	26.2%	18,851	12.4%
Oxfordshire	69,824	27.0%	89,756	13.7%
South East	1,048,887	29.5%	1,356,204	15.7%
England	7,217,905	32.7%	9,352,586	17.6%

Source: 2011 Census

10.7.3 As noted, it is likely that the age profile will impact upon the numbers of people with a LTHPD, as older people tend to be more likely to have a LTHPD. The figure below shows the age bands of people with a LTHPD. It is clear from this analysis that those people in the oldest age bands are more likely to have a LTHPD. The analysis also typically shows lower levels of LTHPD in each age band in Oxfordshire when compared with the regional and national position.

Figure 10.6: Population with Long-Term Health Problem or Disability by Age



Source: 2011 Census

10.8 Health Related Population Projections

10.8.1 The incidence of a range of health conditions is an important component in understanding the potential need for care or support for a growing older population. The analysis undertaken covers both younger and older age groups and draws on prevalence rates from the PANSI (Projecting Adult Needs and Service Information) and POPPI (Projecting Older People Population Information) websites. Adjustments have been made to take account of the age specific health/disabilities previously shown.

10.8.2 Of particular note are the large increases in the number of older people with dementia (increasing by up to 73% in Cherwell and 58% in Oxford from 2022 to 2040

and mobility problems (up 53%-64% over the same period). Changes for younger age groups are smaller, reflecting the fact that projections are expecting older age groups to see the greatest proportional increases in population. When related back to the total projected change to the population, the increase of people aged 65+ with a mobility problem represents around 10% of total projected population growth in Cherwell (and about 4% in Oxford).

10.8.3 It should be noted that there will be an overlap between categories (i.e. some people will have both dementia and mobility problems). Hence the numbers for each of the illnesses/disabilities should not be added together to arrive at a total.

Table 10.21 Projected Changes to Population with a Range of Disabilities – Cherwell (CE Baseline)

Disability	Age Range	2022	2040	Change	% Change
Dementia	65+	1,785	3,073	1,288	72.2%
Mobility problems	65+	4,725	7,699	2,974	62.9%
Autistic Spectrum Disorders	18-64	778	886	107	13.8%
	65+	245	374	129	52.4%
Learning Disabilities	15-64	2,006	2,250	244	12.1%
	65+	542	819	277	51.0%
Challenging behaviour	15-64	37	41	5	12.2%
Impaired mobility	16-64	4,320	4,810	490	11.3%

Source: POPPI/PANSI and Demographic Projections

Table 10.22 Projected Changes to Population with a Range of Disabilities – Cherwell (2021 Census Adjusted)

Disability	Age Range	2022	2040	Change	% Change
Dementia	65+	1,785	3,095	1,311	73.4%
Mobility problems	65+	4,725	7,753	3,029	64.1%
Autistic Spectrum Disorders	18-64	778	902	124	15.9%
	65+	245	377	131	53.5%
Learning Disabilities	15-64	2,006	2,292	286	14.2%
	65+	542	825	283	52.1%
Challenging behaviour	15-64	37	42	5	14.3%
Impaired mobility	16-64	4,320	4,880	560	13.0%

Source: POPPI/PANSI and Demographic Projections

Table 10.23 Projected Changes to Population with a Range of Disabilities – Oxford (CE Baseline)

Disability	Age Range	2022	2040	Change	% Change
Dementia	65+	1,279	2,008	729	57.0%
Mobility problems	65+	3,357	5,133	1,776	52.9%
Autistic Spectrum Disorders	18-64	880	1,184	304	34.6%
	65+	167	251	84	50.1%
Learning Disabilities	15-64	2,339	3,010	671	28.7%
	65+	376	558	181	48.2%
Challenging behaviour	15-64	42	54	12	28.7%
Impaired mobility	16-64	3,670	4,326	655	17.8%

Source: POPPI/PANSI and Demographic Projections

Table 10.24 Projected Changes to Population with a Range of Disabilities – Oxford (2021 Census Adjusted)

Disability	Age Range	2022	2040	Change	% Change
Dementia	65+	1,279	2,017	738	57.7%
Mobility problems	65+	3,357	5,155	1,798	53.6%
Autistic Spectrum Disorders	18-64	880	1,210	330	37.5%
	65+	167	252	85	50.8%
Learning Disabilities	15-64	2,339	3,075	736	31.5%
	65+	376	560	184	48.9%
Challenging behaviour	15-64	42	55	13	31.5%
Impaired mobility	16-64	3,670	4,406	735	20.0%

Source: POPPI/PANSI and Demographic Projections

10.8.4 Invariably, there will be a combination of those with disabilities and long-term health problems that continue to live at home with family, those who chose to live independently with the possibility of incorporating adaptations into their homes and those who choose to move into supported housing.

10.8.5 The projected change shown in the number of people with disabilities provides clear evidence justifying delivering 'accessible and adaptable' homes as defined in Part M4(2) of Building Regulations, subject to viability and site suitability. Councils should ensure that the viability of doing so is also tested as part of drawing together its evidence base although the cost of meeting this standard is unlikely to have any significant impact on viability and would potentially provide a greater number of homes that will allow households to remain in the same property for longer.

10.9 Need for Specialist Accommodation for Older Persons

10.9.1 The Planning Policy Guidance (PPG) provides guidance specifically on Housing for older and disabled people[36]. The Guidance answers the question as to why it is important to plan for the housing needs of older persons stating:

*"**The need to provide housing for older people is critical.** People are living longer lives and the proportion of older people in the population is increasing. In mid-2016 there were 1.6 million people aged 85 and over; by mid-2041 this is projected to double to 3.2 million. Offering older people a better choice of accommodation to suit their changing needs can help them live independently for longer, feel more connected to their communities **and help reduce costs to the social care and health systems**. Therefore, an understanding of how the ageing population affects housing needs is something to be considered from the early stages of plan-making through to decision-taking."* (Reference ID: 63-001-20190626)

10.9.2 The Planning Practice Guidance (PPG)[37] defines the different types of specialist housing (as set out in the box below) but is clear that there is a significant variability in the types of specialist types of housing available. The Government states in the PPG that the need to provide housing for older people is critical.

[36] https://www.gov.uk/guidance/housing-for-older-and-disabled-people

[37] https://www.gov.uk/guidance/housing-for-older-and-disabled-people

Definitions of Different Types of Older Persons' Accommodation

Age-restricted general market housing: This type of housing is generally for people aged 55 and over and the active elderly. It may include some shared amenities such as communal gardens, but does not include support or care services.

Retirement living or sheltered housing (housing with support): This usually consists of purpose-built flats or bungalows with limited communal facilities such as a lounge, laundry room and guest room. It does not generally provide care services, but provides some support to enable residents to live independently. This can include 24-hour on-site assistance (alarm) and a warden or house manager.

Enhanced sheltered housing: Sheltered housing with additional services to enable older people to retain their independence in their own home possible. Typically, there may be 24/7 (non-registered) staffing cover, at least one daily meal will be provided and there will be additional shared facilities. Also called assisted living and very sheltered housing.

Extra care housing or housing-with-care (housing with care): This usually consists of purpose-built or adapted flats or bungalows with a medium to high level of care available if required, through an onsite care agency registered through the Care Quality Commission (CQC). Residents are able to live independently with 24-hour access to support services and staff, and meals are also available. There are often extensive communal areas, such as space to socialise or a wellbeing centre. In some cases, these developments are known as retirement communities or villages - the intention is for residents to benefit from varying levels of care as time progresses.

Residential care homes and nursing homes (care bedspaces): These have individual rooms within a residential building and provide a high level of care meeting all activities of daily living. They do not usually include support services for independent living. This type of housing can also include dementia care homes.

Source: Planning Practice Guidance [63-010]

10.9.3 As set out in the box above and illustrated in the figure below there are different models of specialist accommodation for older people and the most common form of differentiation between these models relates to the level and frequency of care and support provided to residents. These were also included within the PPG.

Figure 10.8: Housing Options for Older People

10.9.4 For the purposes of this assessment we have considered the need for affordable and leasehold homes in the following categories:

- Housing with Support – as comprising retirement and sheltered housing;
- Housing with Care – as comprising housing where care is available;
- Residential and nursing bedspaces.

10.9.5 As a general housing product this section of the report does not examine the need for age-restricted accommodation. It will effectively be up to the market to decide the level of this type of housing that should be delivered.

The modelling of the older persons specialist accommodation needs focuses on the two commissioning authorities.

Current Supply

10.9.6 We have drawn on data from the Elderly Accommodation Counsel (EAC) to examine the existing supply of specialist accommodation for older people in the Study Area. As shown in the table below the majority of supply comes in the form of housing with support. There is also a strong supply of care bedspaces which are principally nursing care. Provision of housing with care housing is less well developed but there is increasing market interest in this sector.

Table 10.25 Current Supply

Type	Tenure	Cherwell	Oxford
Housing With Support	Affordable	1,296	920
	Market	712	357
Housing With Support Total		**2,008**	**1,277**
Housing with Care	Affordable	234	190
	Market	71	0
Housing with Care Total		**305**	**190**
Residential Care		219	261
Nursing Care		943	606
Care Bedspaces		**1,162**	**867**

Source: Elderly Accommodation Counsel, 2022

Modelling Approach and Assumptions

10.9.7 There are a number of 'models' for considering older persons' needs, but they all essentially work in the same way by applying a 'prevalence rate' to projected demographic growth. The model results are particularly sensitive to the prevalence rates applied. Prevalence rates are typically reported as the number of units/bedspaces required per 1,000 head of population aged 75 based on the proportion of people in this age group who could be expected to live in different forms of specialist housing. Whilst the population aged 75 and over is used in the modelling, the estimates of need would include people of all ages.

10.9.8 Whilst there are no definitive rates, the PPG [63-004] notes that 'the future need for specialist accommodation for older people broken down by tenure and type (e.g. sheltered housing, extra care) may need to be assessed and can be obtained from a number of online tool kits provided by the sector, for example SHOP@ for Older People Analysis Tool)'. The PPG does not specifically mention any other tools and therefore seems to be indicating that SHOP@ would be a good starting point for analysis. However, since the PPG was published the Housing Learning and Information Network (Housing LIN) has removed the Shop@ online toolkit although the base rates used for analysis are known. Prevalence rates identified in existing studies include:

Table 10.26 Range of suggested baseline prevalence rates from a number of tools and publications

Type/Rate	SHOP@ (2008)[38]	Housing in Later Life (2012) [39]	2016 Housing LIN Review
Retirement living or sheltered housing (housing with support)	125	180	100
Extra care housing or Enhance Sheltered (housing with care)	45	65	30-40 ('proactive
Residential care homes **Nursing homes (care bedspaces), including dementia**	65 45	(no figure apart from 6 for dementia)	40 45

Source: Range of sources as identified

10.9.9 In interpreting the different potential prevalence rates it is clear that:

- The prevalence rates used should be considered and assessed taking account of an authority's strategy for delivering specialist housing for older people. The degree for instance which Oxfordshire County Council want to require extra care

[38] Based on the More Choice Greater Voice publication of 2008 (https://www.housinglin.org.uk/_assets/Resources/Housing/Support_materials/Reports/MCGVdocument.pdf). It should be noted that although these rates are from 2008, they are the same rates as were being used in the online toolkit when it was taken offline in 2019.

[39] https://www.housinglin.org.uk/_assets/Resources/Housing/Support_materials/Toolkit/Housing_in_Later_Life_Toolkit.pdf

housing as an alternative to residential care provision would influence the relative balance of need between these two housing types;

- The Housing LIN model has been influenced by existing levels of provision and their view on what future level of provision might be reasonable taking account of how the market is developing, funding availability etc. There is a degree to which the model and assumptions within it may not fully capture the recent growth in private sector interest and in the extra care sector in particular.

10.9.10 Iceni has sought to consider these issues and the appropriate modelling assumptions for assessing future needs. Nationally, there has been a clear focus on strengthening a community-led approach and reducing reliance on residential and nursing care – in particular, focussing where possible on providing households with care in their own home. Equally, Oxfordshire County Council have stressed their desire to provide additional extra care to ease the burden on residential care.

10.9.11 The County Council are currently developing their policy, however their interim position, based on our discussion with them, is that they would like to see a shift away from residential care towards Extra Care. This will provide cost savings to the County Council but more importantly it will provide services users with a more appropriate form of housing.

10.9.12 For Extra Care it is considered that the prevalence rates shown in the Shop@ are an appropriate starting point i.e. 45 units per 1,000 persons aged over 65. This has regards to market growth in this sector in recent years, county policy and a number of planning judgements since the above studies were prepared.

10.9.13 More appropriate accommodation, in terms of both facilities and level of care, means that people will be able to live in their accommodation longer. Increased extra care provision will reduce needs for residential care which is often necessitated by those in general housing no longer being able to live independently. We have therefore modelled a change in prevalence rates of residential care from a default target of 40 per 1,000 to 20 per 1,000 aged over 75 and shifted this need to Extra Care which goes from 45 per 1,000 to 65 per 1,000 aged over 75.

10.9.14 As a further adjustment, where current rates of residential care provision is over 20 per 1,000 aged over 75 we have added this surplus to the Extra-Care need. However, where this is below 20 per 1,000 we have reduced this from the Extra-Care need.

10.9.15 In addition, due to the increasing population there may will still be a need for additional residential care despite the reduced prevalence as well as, in some cases, a need for better quality provision (such as provision of care homes with en-suite facilities and of a size which are commercially viable).

10.9.16 For housing with support an appropriate starting point is 135 units per 1,000 persons aged over 75. This is an average of the three sources. For Nursing Care the only rate published is 45 per 1,000 aged over 75. This is therefore applied.

10.9.17 The modelling is complicated by evidence that the existing provision for housing with support and residential/nursing care bedspaces is above the target rates. Future provision is however influenced by demographic growth.

10.9.18 In order for the market for extra-care (and other typologies) to take hold we have sought to gradually increase the prevalence rates from the current position to the desired position (the 'target prevalence rate') over the next 18 years. The approach in these terms allows for the strategy for prioritising extra care housing rather than other forms to be delivered – but this strategy is delivered over time.

Table 10.27 Current and Target Prevalence Rates (2022)

Prevalence	Tenure	Cherwell Current	Cherwell Target	Oxford Current	Oxford Target
Housing With Support	Affordable	96	31	101	45
	Market	53	104	39	90
Housing With Support Total		150	135	141	135
Housing with Care	Affordable	17	14	21	25
	Market	5	47	0	49
Housing with Care Total		23	61	21	74
Residential Care		16	20	29	20
Nursing Care		70	45	67	45
Care Bedspaces		87	65	95	65

Source: Iceni Analysis based on EAC data

10.9.19 In relation to the split between tenures for housing with support and housing with care, the recommended future supply is split as per the current levels of owner occupation in older age groups in each area.

Specialist Housing Needs

10.9.20 Applying these target prevalence rates to the population projections results in the following gross need over the period to 2040. As shown there is expected to be a growth in demand for all types of housing in all local authorities.

Table 10.28 Gross Need for Specialist Housing for Older People (2022-2040) – CE Baseline

		Cherwell		Oxford	
	Tenure	2022	2040	2022	2040
Housing With Support	Affordable	1,296	719	920	648
	Market	712	2,405	357	1,281
Housing With Support Total		**2,008**	**3,124**	**1,277**	**1,929**
Housing with Care	Affordable	234	327	190	354
	Market	71	1,092	0	700
Housing with Care Total		**305**	**1,419**	**190**	**1,053**
Residential Care		219	463	261	286
Nursing Care		943	1,041	606	643
Care Bedspaces		**1,162**	**1,504**	**867**	**929**

Source: Iceni Analysis

Table 10.29 Gross Need for Specialist Housing for Older People (2022-2040) – 2021 Census Adjusted)

		Cherwell		Oxford	
	Tenure	2022	2040	2022	2040
Housing With Support	Affordable	1,296	724	920	650
	Market	712	2,421	357	1,286
Housing With Support Total		**2,008**	**3,145**	**1,277**	**1,936**
Housing with Care	Affordable	234	329	190	355
	Market	71	1,099	0	702
Housing with Care Total		**305**	**1,428**	**190**	**1,057**
Residential Care		219	466	261	287
Nursing Care		943	1,048	606	645
Care Bedspaces		**1,162**	**1,514**	**867**	**932**

Source: Iceni Analysis

10.9.21 Once existing supply is taken into account, there broadly remains a significant future need in all areas. However, whilst there is a significant future need for most types of accommodation, there is an over-supply of affordable housing with support in Oxford and Cherwell. Each council should take a view as to whether future loss of this types of accommodation should be allowed or whether existing provision rates should be maintained. Issues related to the quality of existing provision may influence this.

Table 10.30 Net Need for Specialist Housing For Older People (2022-2040) – CE Baseline

	Tenure	Cherwell	Oxford
Housing With Support	Affordable	-577	-272
	Market	1,693	924
Housing With Support Total		**1,116**	**652**
Housing with Care	Affordable	93	164
	Market	1,021	700
Housing with Care Total		**1,114**	**863**
Residential Care		244	25
Nursing Care		98	37
Care Bedspaces		**342**	**62**

Source: Iceni Analysis based on EAC data

Table 10.31 Net Need for Specialist Housing For Older People (2022-2040) – 2021 Census Adjusted

	Tenure	Cherwell	Oxford
Housing With Support	Affordable	-572	-270
	Market	1,709	929
Housing With Support Total		**1,137**	**659**
Housing with Care	Affordable	95	165
	Market	1,028	702
Housing with Care Total		**1,123**	**867**
Residential Care		247	26
Nursing Care		105	39
Care Bedspaces		**352**	**65**

Source: Iceni Analysis based on EAC data

10.9.22 In Cherwell, there is a broad balance of need across housing with support housing with care and a lesser need for care bedspaces. However, any delivery should be focused on market accommodation. This is particularly the case for housing with support. In Oxford there is less of a demand for care bedspaces but a broadly even demand for housing with care and housing with support. Again the focus on this should be market accommodation.

The above figures do not take account of pipeline supply (as this will change over time).

10.10 Qualitative Need

10.10.1 The provision of a choice of attractive housing options to older households is a component of achieving good housing mix. The availability of such attractive housing options for the growing older population may enable some older households to downsize from homes which no longer meet their housing needs or are expensive to run. The opportunity for older households to 'rightsize' can help improve their quality of life.

10.10.2 As well as planning for a numerical increase in specialist accommodation, the Councils should also support a qualitative increase. They should work with the Care Quality Commission to better understand the requirements for modern specialist housing and ensure these are implemented in new schemes. They may well be the need for replacement or remodelling of some older stock (e.g. bedsit properties) or reconfiguration of the market. The residential/nursing care market is for instance moving towards larger schemes which offer economies of scale and quality premises (for instance with en-suite facilities).

10.11 Wheelchair User Housing

10.11.1 Information about the need for housing for wheelchair users is difficult to obtain, particularly at a local level and estimates of need produced in this report draw on data from the English Housing Survey (EHS) which provides a range of relevant data, but often for different time periods. The EHS data used includes the age structure profile of wheelchair users, information about work needed to homes to make them 'visitable' for wheelchair users and data about wheelchair users by tenure.

10.11.2 The analysis below sets out estimates of the number of wheelchair users in each local authority; this has been based on estimating prevalence rates from the 2011-12 EHS (Annex Table 6.11) combined with Census data. At the time, the EHS showed there were 184,000 households with a wheelchair user and the oldest person in the household was aged under 60; the 2011 Census showed around 40.6 million people aged under 60 and therefore a base prevalence rate of 0.005 has been calculated for this group – essentially for every 1,000 people aged under 60 there are around 5 wheelchair user households. The table below shows data for a full range of age groups; it should be noted that whilst the prevalence rates mix households and population they will provide a reasonable estimate of the number of wheelchair user households.

Table 10.32 Baseline prevalence rates by age used to estimate wheelchair user households – England

	Number of wheelchair user households	Household population	Prevalence (per 1,000 population)
under 60 years	184,000	40,562,000	5
60 - 74 years	205,000	7,668,000	27
75 - 84 years	191,000	2,832,000	68
85 years or over	146,000	997,000	146

Source: Derived from EHS (2011-12) and 2011 Census

10.11.3 The analysis also considers the relative health of the population of Cherwell and Oxford. For this, data has been taken from the 2011 Census for the household population with 'day to day activities limited a lot' by their disability. The tables below show this information by age in the study area and England, and also shows the adjustment made to reflect differences in heath between the areas. Due to the age bands used in the Census, there has been some degree of adjustment for the under 60 and 60-74 age groups. The data shows lower levels of disability for all age groups in the two authorities, pointing to a slightly lower than average proportion of wheelchair user households.

Table 10.33 Proportion of people with day to day activities limited a lot (by age) – 2011 – Cherwell

	% of age group with day to day activities limited a lot		Cherwell as % of England	Prevalence rate (per 1,000 population)
	Cherwell	England		
under 60 years	2.7%	4.2%	66.2%	3
60-74 years	9.3%	13.9%	67.1%	18
75-84 years	25.7%	29.1%	88.5%	60
85 years or over	52.2%	52.3%	99.7%	146

Source: 2011 Census

Table 10.34 Proportion of people with day to day activities limited a lot (by age) – 2011 – Oxford

	% of age group with day to day activities limited a lot		Oxford as % of England	Prevalence rate (per 1,000 population)
	Oxford	England		
under 60 years	2.9%	4.2%	70.6%	3
60-74 years	11.6%	13.9%	82.9%	22
75-84 years	25.5%	29.1%	87.7%	59
85 years or over	50.3%	52.3%	96.1%	140

Source: 2011 Census

10.11.4 The local prevalence rate data can be brought together with information about the population age structure and how this is likely to change moving forward. For Cherwell, the data estimates a total of 1,851 wheelchair user households in 2022, and that this will rise to 2,815-2,840 by 2040. In Oxford 1,443 wheelchair user households increases to around 2,100 over the same period.

Table 10.35 Estimated number of wheelchair user households (2022-40) – Cherwell – CE Baseline

	Prevalence rate (per 1,000 population)	Household population 2022	Household population 2040	Wheelchair user households (2022)	Wheelchair user households (2040)
under 60 years	3	123,026	135,771	369	408
60 - 74 years	18	24,702	31,404	443	563
75 - 84 years	60	9,345	15,412	559	921
85 years or over	146	3,296	6,328	481	923
Total		160,369	188,916	1,851	2,815

Source: Derived from a range of sources

Table 10.36 Estimated number of wheelchair user households (2022-40) – Cherwell – 2021 Census Adjusted

	Prevalence rate (per 1,000 population)	Household population 2022	Household population 2040	Wheelchair user households (2022)	Wheelchair user households (2040)
under 60 years	3	123,026	138,551	369	416
60 - 74 years	18	24,702	31,668	443	568
75 - 84 years	60	9,345	15,508	559	927
85 years or over	146	3,296	6,376	481	930
Total		160,369	192,103	1,851	2,840

Source: Derived from a range of sources

Table 10.37 Estimated number of wheelchair user households (2022-40) – Oxford – CE Baseline

	Prevalence rate (per 1,000 population)	Household population 2022	Household population 2040	Wheelchair user households (2022)	Wheelchair user households (2040)
under 60 years	3	116,921	153,156	375	491
60 - 74 years	22	16,511	21,969	366	487
75 - 84 years	59	6,136	9,357	363	554
85 years or over	140	2,411	3,999	339	562
Total		141,980	188,481	1,443	2,093

Source: Derived from a range of sources

Table 10.38 Estimated number of wheelchair user households (2022-40) – Oxford – 2021 Census Adjusted

	Prevalence rate (per 1,000 population)	Household population 2022	Household population 2040	Wheelchair user households (2022)	Wheelchair user households (2040)
under 60 years	3	116,921	157,113	375	503
60 - 74 years	22	16,511	22,096	366	490
75 - 84 years	59	6,136	9,392	363	556
85 years or over	140	2,411	4,018	339	564
Total		141,980	192,618	1,443	2,113

Source: Derived from a range of sources

10.11.5 The finding of an estimated current number of wheelchair user households does not indicate how many homes might be needed for this group – some households will be living in a home that is suitable for wheelchair use, whilst others may need improvements to accommodation, or a move to an alternative home. Data from the EHS (2014-15) shows that of the 814,000 wheelchair user households, some 200,000 live in a home that would either be problematic or not feasible to make fully 'visitable' – this is around 25% of wheelchair user households. Applying this to the current number of wheelchair user households and adding the additional number projected forward suggests a need for around 80 additional wheelchair user homes per annum in Cherwell and 60 for Oxford – this equates to about 8% of all housing need in Cherwell and 4% in Oxford (as set out in the table below).

Table 10.39 Estimated need for wheelchair user homes, 2022-40 (figures per annum)

	Current need	Projected need	Total current and future need	Housing need	% of Housing Need
Cherwell – CE base	25	54	79	1,009	7.8%
Cherwell – Census adj.	25	55	80	1,081	7.4%
Oxford – CE base	20	36	56	1,322	4.2%
Oxford – Census adj.	20	37	57	1,416	4.0%

Source: Derived from a range of sources

10.11.6 Furthermore, information in the EHS (for 2017/18) also provides national data about wheelchair users by tenure. This showed that, at that time, around 7.1% of social tenants were wheelchair uses, compared with 2.7% of market households (owner-occupiers and private renters). Applying these national figures to the demographic change and need (as shown above) it is possible to estimate the potential need by tenure, as shown in the table below. This shows a need for around 3-6% of market homes to be M4(3) along with 8-16% of affordable.

Table 10.40 Estimated need for wheelchair user homes by tenure, 2022-32

	Market	Affordable
Cherwell – CE base	6%	16%
Cherwell – Census adj.	6%	15%
Oxford – CE base	3%	9%
Oxford – Census adj.	3%	8%

Source: Derived from demographic projections and EHS prevalence rates

10.11.7 To meet the identified need, the Councils could seek a proportion (maybe up to 10%) of all new market homes to be M4(3) compliant and potentially around a fifth in the affordable sector. These figures reflect that not all sites would be able to deliver homes of this type. In the market sector these homes would be M4(3)A (adaptable) and M4(3)B (accessible) for affordable housing.

10.11.8 As with M4(2) homes it may not be possible for some schemes to be built to these higher standards due to built-form, topography, flooding etc. Furthermore, provision of this type of property may in some cases challenge the viability of delivery given the reasonably high build out costs (see table below).

10.11.9 It is worth noting that the Government is currently consulting on changes to the way the needs of people with disabilities and wheelchair users are planned for as a result of concerns that in the drive to achieve housing numbers, the delivery of housing that suits the needs of the households (in particular those with disabilities) is being compromised on viability grounds[40].

10.11.10 One of the policy options tabled in this document is to remove M4(1) altogether, so that all new homes will have to at least have the accessible and adaptable features of an M4(2) home. M4(3) would apply where there is a local planning policy in place in which a need has been identified and evidenced. This is consistent with the evidence presented in this report, although the trade-off identified in the consultation paper between viability and the need to deliver sufficient numbers of market homes to meet general housing needs is unavoidable.

10.11.11 The viability challenge is particularly relevant for M4(3)(B) standards. These make properties accessible from the moment they are built and involve high additional costs that could in some cases challenge the feasibility of delivering all or any of a policy target.

Table 10.41 Access Cost Summary

	1-Bed Apartment	2-Bed Apartment	2-Bed Terrace	3-Bed Semi Detached	4-Bed Semi-Detached
M4(2)	£940	£907	£523	£521	£520
M4(3)(A) – Adaptable	£7,607	£7,891	£9,754	£10,307	£10,568
M4(3)(B) – Accessible	£7,764	£8,048	£22,238	£22,791	£23,052

Source: EC Harris, 2014

[40] Raising accessibility standards for new homes, a consultation paper, page 10

10.11.12 However, local authorities only have the right to request M4(3)(B) accessible compliance from homes for which they have nomination rights. They can, however, request M4(3)(A) adaptable compliance from the wider (market) housing stock.

10.11.13 A further option for the Councils would be to consider seeking a higher contribution, where it is viable to do so, from those homes to which they have nomination rights. This would address any under delivery from other schemes (including schemes due to their size e.g. less than 10 units or 1,000 square metres) but also recognise the fact that there is a higher prevalence for wheelchair use within social rent tenures. This should be considered when setting policy.

10.12 Specific housing market segments

Self- and Custom-Build

10.12.1 This section considers the need for serviced plots to provide for self-build and custom housebuilding as well as an appropriate policy response.

10.12.2 The Government has a clear agenda for supporting and promoting the self-build and custom building sector. The Self-Build and Custom Housebuilding Act 2015 (as amended by the Housing and Planning Act 2016) ("the 2015 Act") provides a legal definition of 'self-build and custom housebuilding' which is where individuals or associations of individuals (or persons working with or for individuals or associations of individuals) build houses to be occupied as homes for those individuals.

10.12.3 The Housing and Planning Act 2016 ("the 2016 Act"), which received Royal Assent on 12th May 2016, formally introduced the 'Right to Build'. It required local planning authorities to set up a register of people wanting to undertake a custom or self-build project in their area. Under the 'duty to grant planning permissions etc.', the 2016 Act has placed a legal duty on the relevant authority to grant enough planning permissions to meet the demand for self-build housing as identified through its register in each base period. The Self-Build and Custom Housebuilding Regulations 2016 subsequently came into force on 31st October 2016, amending the 2015 Act and implementing Chapter 2 of the 2016 Act.

Self and Custom Build Register

10.12.4 As of 1st April 2016, and in line with the 2015 Act and the Right to Build, relevant authorities in England are required to have established and publicised a self-build and custom housebuilding register which records those seeking to acquire serviced plots of land in the authority's area in order to build their own self-build and custom houses.

10.12.5 There has now been five full base periods up to 30th October 2020 as well as the initial half year base period. As the table below shows, the need shown is equivalent to an annual average of around 524 self-build plots per year in Cherwell and 22 in Oxford City.

Table 10.42 Serviced Plot Demand by Base Period

Base Period:	1*	2	3	4	5	6	Average
Cherwell	2757	75	12	19	19	26	524
Oxford City	23	20	11	20	24	25	22

Source: Right to Build Registers Monitoring *half year for initial base period. Average based on 5.5 years

10.12.6 The numbers on the Cherwell register are the highest in the Country and more than double that of the next highest (Bristol at 230 per annum), This is due to the Graven Hill site in Bicester which is the largest self-build scheme in the UK and the second largest in Europe, providing up to 2,100 homes (of which 1,900 will be self-build). It is likely however that this scheme is not meeting the demand of the district but a much wider catchment. Due to the size of the development it currently enables people from outside the district to purchase plots for self-build properties, thus helping to meet demand from elsewhere.

10.12.7 Cherwell introduced a local connection test in 2017 which may go some way to explain the subsequent fall off in individuals registering from the first base period to

subsequent base periods. At the same time the Council also introduced a financial viability test.

10.12.8 It is worth highlighting that a survey[41] undertaken by YouGov on behalf of the National Custom and Self-Build Association ("NaCSBA") in October 2020 found that awareness of the Right to Build legislation is low with 83% of people unaware that the local authority self-build registers exist. As a result, the number of individuals on a local authority's self-build register may underestimate demand. However this is unlikely to be the case in Cherwell as the custom of and self-build market is very well known aided by publicity through programmes such as Grand Designs as well as a Graven Hill marketing suite in the development.

Broader Demand Evidence

10.12.9 In order to supplement the data from the Council's own register, we have looked to secondary sources as recommended by the PPG, which for this report is data from NaCSBA - the national association for the custom and self-build housing sector.

10.12.10 First, it is worth highlighting that the recent October 2020 survey undertaken by YouGov on behalf of NaCSBA found that 1 in 3 people (32%) are interested in building their own home at some point in the future, including 12% who said they were very interested. Notably, almost half (48%) of those aged between 18 and 24 were interested in building their own home, compared to just 18% of those aged 55 and over. This is notable as, traditionally, self-build has been seen as the reserve of older members of society aged 55 and over, with equity in their property

10.12.11 Second, we can draw on NaCSBA data to better understand the level of demand for serviced plots. The association has recently published analysis with supporting maps and commentary titled "Mapping the Right to Build" in 2019. This includes an output on the demand for serviced plots as a proportion of total population relative to all other local authorities across England. This shows a demand in Cherwell equivalent to 413 per 100,000 head of population and 59 per 100,000 in Oxford.

Supporting the Self-Build and Custom Housebuilding

10.12.12 The Self-Build and Custom Housebuilding PPG sets out how authorities can increase the number of planning permissions which are suitable for self-build and custom housebuilding and support the sector. The PPG[42] is clear that authorities should consider how local planning policies may address identified requirements for self and custom housebuilding to ensure enough serviced plots with suitable permission come forward and can focus on playing a key role in facilitating relationships to bring land forward. There are a number of measures which can be used to do this, including but not limited to:

[41] A survey of 2,017 adults with fieldwork undertaken online between 9th – 11th October 2020. The figures are weighted and are representative of all GB adults aged 18+

[42] Paragraph: 025 Reference ID: 57-025-20210508

- supporting Neighbourhood Planning groups where they choose to include self-build and custom build housing policies in their plans;
- working with Homes England to unlock land and sites in wider public ownership to deliver self-build and custom build housing;
- when engaging with developers and landowners who own sites that are suitable for housing, encouraging them to consider self-build and custom housebuilding, and facilitating access to those on the register where the landowner is interested; and
- working with local partners, such as Housing Associations and third sector groups, to custom build affordable housing for veterans and other groups in acute housing need.

10.12.13 Iceni would note that an increasing number of local planning authorities have adopted specific self-build and custom housebuilding policies in respective Local Plans to encourage delivery, promote and boost housing supply.

10.12.14 Cherwell are a vanguard local authority when it comes to custom and self build housing. The have specifically allocated at Policy Bicester 2 of the Cherwell Local Plan 2011-2031 the Graven Hill site in Bicester for development of this type. As stated, this is meeting the wider demand rather than just that for Cherwell residents. Although, in order to widen the supply beyond Bicester, the Council may wish to seek a similar policy to Oxford (see below) on large sites not in Bicester.

10.12.15 In Oxford, Policy H7 of the Local Plan supports self-build housing and requires sites of 50 or more units to provide 5% of the site area to be made available for self-build plots. These will be part of the 50% of market housing to be delivered on such sites unless conditioned to be otherwise. If such units remain unsold after 12 months then they will be built and brought forward in the normal way.

Build to Rent

This section considers Private Rented Sector dynamics and considers the potential for Build-to-Rent development.

The Size of the Sector

10.12.16 In Oxfordshire the Private Rental Sector grew from around 10% of all households in 2001 to 15.2% in 2011. In order to bring this up to date, Iceni has drawn on data published by ONS which provides a view on how the tenure profile may have evolved since the 2011 Census. It should be caveated that the confidence value varies greatly by authority and the data is therefore only intended to provide a broad view on the potential tenure profile. Clearly as the Census 2021 data begins to emerge, we will have a clearer understanding of the true picture.

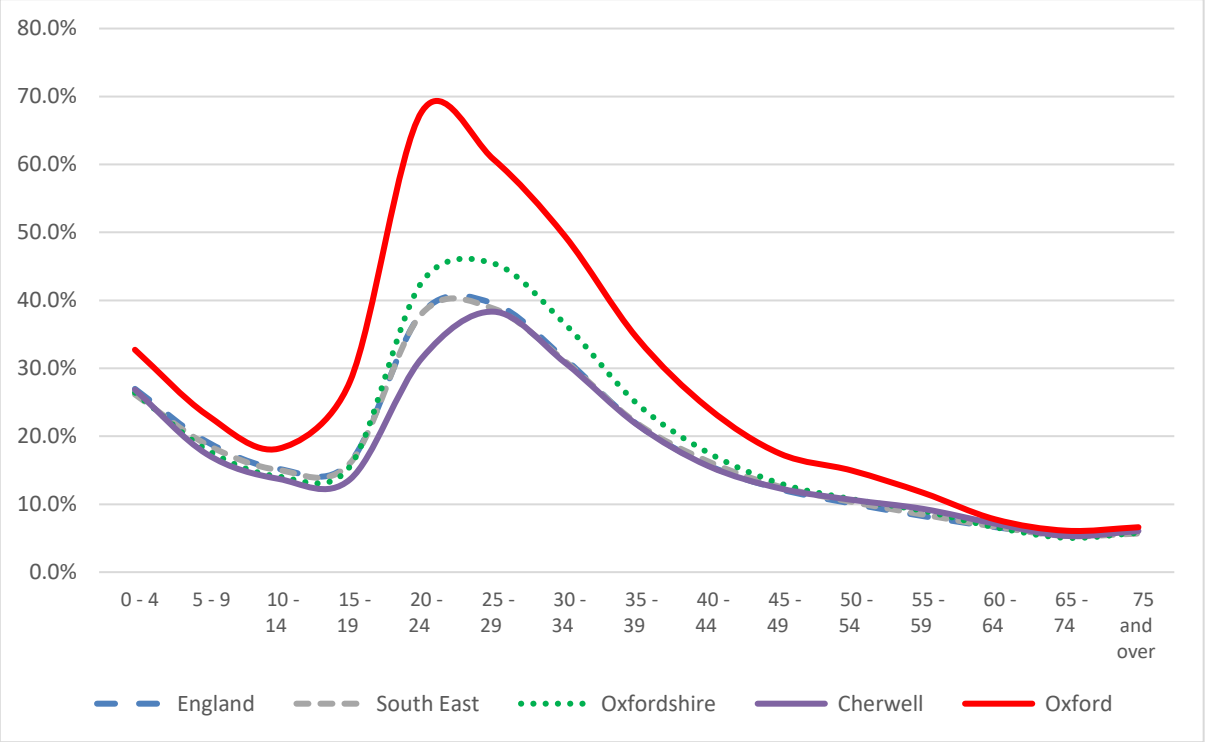
10.12.17 ONS data suggests that the PRS sector peaked in 2016. In Cherwell this was at 18%, but has since fallen to 17.5%. Oxford also peaked at 29.8% in 2016 and has since fallen to 29%. This aligns with the national picture with the latest English

Housing Survey[43] stating that the proportion of households in the Private Rented Sector decreased over the period 2015/16 to 2020/21.

The Profile of Renters

10.12.18 The age of those renting at the point of the 2011 Census a was skewed towards those aged 20 to 39 in line with the regional and national average. There is a comparatively higher percentage of all age groups privately renting in Oxford and lower percentage in younger age groups in Cherwell.

Figure 10.8: Age Profile of Private Rented Sector Tenants



Source: 2011 Census

10.12.19 The 2011 Census indicated that the largest household group in the Sector was single person households aged under 65 accounting for around a quarter (23%-26%) of all households which is typical of the private rented sector profile. There is also a high percentage of couples with Dependent Children that are privately renting. In Oxford there was also a relatively high percentage of Couples with no Children and All Student Households.

10.12.20 The Census showed that over 50% of private renters are high skilled, professional households in the top three major occupation groups. Although this is somewhat skewed by Oxford (63%) while Cherwell have more modest percentages (43% and 51% respectively)

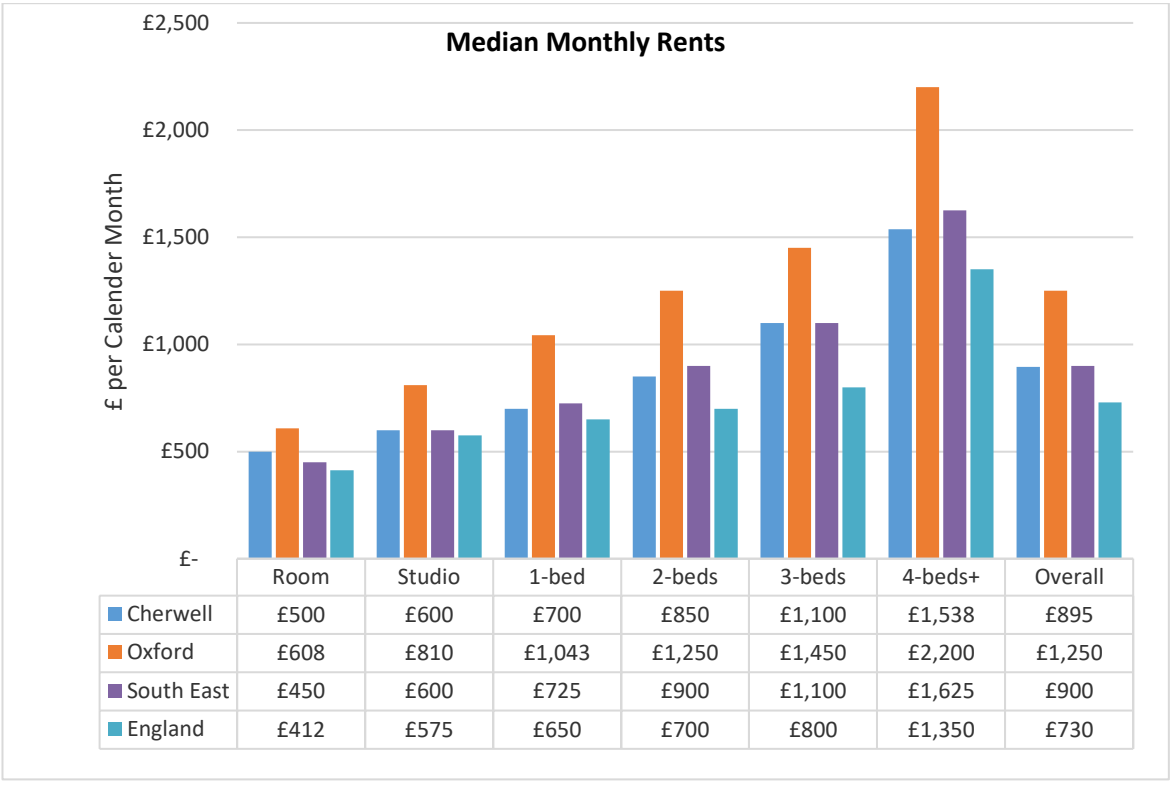
Rental Market Statistics

10.12.21 The median rent in Oxford is £1250 per calendar month and the lower quartile rent is £1050 pcm. Even the lower quartile price in Oxford is above the median rents in Cherwell. If we drill into median rents by property size we see that for

[43] English Housing Survey 2020/21

all sizes of homes rents in Oxfordshire are above the other two local authorities as well as England and the South East. This is particularly the case for larger homes.

Figure 10.9: Monthly Median Rents by Size, Year to March 2021

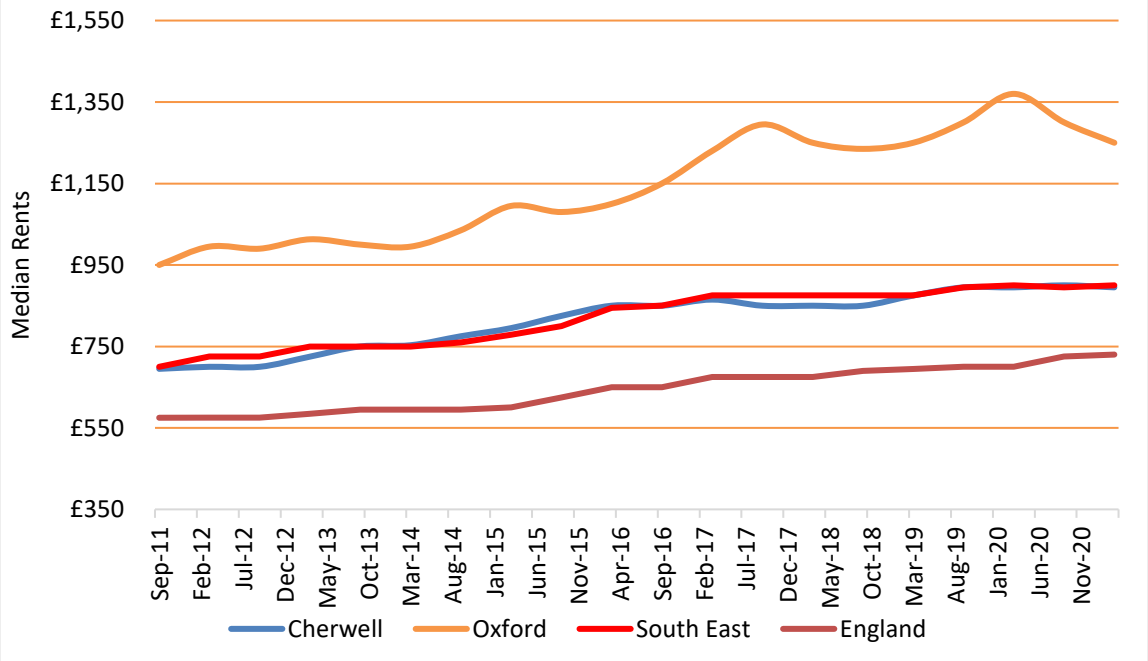


	Room	Studio	1-bed	2-beds	3-beds	4-beds+	Overall
Cherwell	£500	£600	£700	£850	£1,100	£1,538	£895
Oxford	£608	£810	£1,043	£1,250	£1,450	£2,200	£1,250
South East	£450	£600	£725	£900	£1,100	£1,625	£900
England	£412	£575	£650	£700	£800	£1,350	£730

Source: VOA, 2022

10.12.22 The evidence indicates that median rents have increased over the last seven years in all areas but particularly in Oxford.

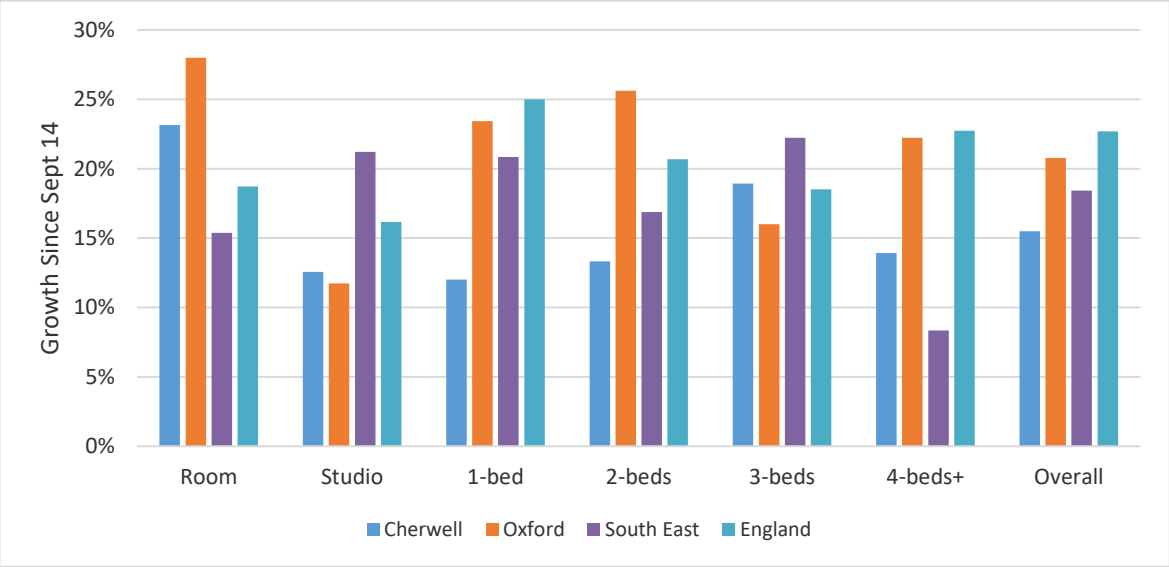
Figure 10.10: Rental Growth, 2014 – 2021



Source: Iceni analysis of ONS Private Rental Market Statistics. Note no data provided for rooms.

10.12.23 Oxford has seen a considerably strong comparable growth in 2-bedroom homes and room only rates and to a lesser degree 1-bedroom units. However, for studios and 3-bedroom units the increase was stronger in Cherwell. This is indicative of the role each area plays with greater demand for smaller units (in part driven by students) in the City and the demand for family sized units in the shire authorities.

Figure 10.11: Percentage Rental Growth by Size, 2014 – 2021



Source: Iceni analysis of ONS Private Rental Market Statistics. Note no data provided for rooms.

10.12.24 If we then set the relevant[44] LHA rates against lower quartile private rental values (i.e. the lowest 25% or "entry-level rents") for each local authority, it is clear that LHA continues to be below market rents for all sizes in the area. This is particularly the case for Oxford. The table below shows the difference between the LHA cap and entry-level rents.

Table 10.43 LQ Rents set against LHA Rates

	1 BED	2 BEDS	3 BEDS	4 BEDS
Cherwell LQ Rent	**£650**	**£795**	**£950**	**£1,300**
Cherwell Valley BRMA	£646	£771	£897	£1,291
Difference	£4	£24	£53	£9
Oxford LQ Rent	**£925**	**£1,100**	**£1,300**	**£1,800**
Oxford BRMA	£773	£910	£1,096	£1,577
Difference	£152	£190	£204	£223

Source: VOA data and DWP Data, 2022

10.12.25 The changing nature of welfare benefits payments, particularly housing benefits and the introduction and shift to Universal Credit have direct implications for lower earning and economically inactive households. The operation of the welfare benefit cap has been in place now for a number of years, restricting the total amount of benefit - including housing benefits - which in turn serves to restrict housing choice and opportunity for those family households affected as is evident from our analysis. The maximum amount of welfare and housing benefit is capped currently at £384.62

[44] Some local authorities cut across Broad Rental Market Areas, Oxford is entirely within the Oxford BRMA, Cherwell is split between Oxford and Cherwell Valley, West Oxfordshire is split across Oxford, Cherwell Valley and Cheltenham

per week or £1,666.67 per month outside of London for families with children and couples.

10.12.26 It is the case that for many living in the PRS, barriers to households becoming homeowners are less likely to relate to income and/or the cost of housing and more about other factors such as saving for a deposit or difficulties obtaining a mortgage. However, it should also be noted that some households will choose to rent privately as this can be a more flexible option. In the context of the private rented sector's growth over the last 20 years and a national housing shortage, successive Governments have looked to the private rented sector to play a greater role in providing more new build housing and have sought to encourage "Build to Rent" development.

10.12.27 According to the British Property Federation there are no build to rent schemes existing or in the pipeline in Oxfordshire. However, the market is still embryonic and has thus far focussed on urban areas with a large student body or a high percentage of younger working age adults.

10.12.28 Market dynamics point to strong demand for PRS properties. However since 2016 there have been legislative and taxation changes which have made the sector less attractive for landlords, including changes to Stamp Duty and the ending of mortgage interest relief. The demographic profile of Oxford in particular makes an attractive potential location for Build-to-Rent development. Cherwell also has a sizeable PRS which is likely to be focused on the main towns. There is potential for the sector to grow in Bicester and Banbury over the plan-period particularly as the market matures and the suburban build-to-rent sub-sector develops. Both authorities should therefore seek to put in place local plan policies to guide development.

10.12.29 A Local Plan policy would effectively set out parameters regarding how schemes would be considered, and how affordable housing policies would be applied. In considering the dwelling mix proposed in relation to a Build-to-Rent scheme; we would expect the focus to be on 1, 2 and some 3-bed properties given the occupancy profile associated with Build to Rent accommodation. However, given that this is still a relatively embryonic sector, the Councils need not be overly prescriptive.

10.12.30 The Framework's definition of Build-to-Rent development sets out that schemes will usually offer tenancy agreements of three or more years and will typically be professionally managed stock in single ownership and management control. It would be appropriate for the Council to adopt a consistent definition.

10.12.31 The Councils will need to consider affordable housing policies specifically for the Build-to-Rent sector. The viability of Build to Rent development will however differ from that of a typical mixed tenure development: returns from the Build to Rent development are phased over time whereas for a typical mixed tenure scheme, capital receipts are generated as the units are completed.

10.12.32 In general terms, it is expected that a proportion of Build to Rent units will be delivered as 'Affordable Private Rent' housing. The PPG[45] states that:

> *"The National Planning Policy Framework states that affordable housing on build to rent schemes should be provided by default in the form of affordable private rent, a class of affordable housing specifically designed for build to rent.*

[45] ID: 60-002-20180913

Affordable private rent and private market rent units within a development should be managed collectively by a single build to rent landlord.

20% is generally a suitable benchmark for the level of affordable private rent homes to be provided (and maintained in perpetuity) in any build to rent scheme. If local authorities wish to set a different proportion, they should justify this using the evidence emerging from their local housing need assessment, and set the policy out in their local plan. Similarly, the guidance on viability permits developers, in exception, the opportunity to make a case seeking to differ from this benchmark.

National affordable housing policy also requires a minimum rent discount of 20% for affordable private rent homes relative to local market rents. The discount should be calculated when a discounted home is rented out, or when the tenancy is renewed. The rent on the discounted homes should increase on the same basis as rent increases for longer-term (market) tenancies within the development"

10.12.33 The Councils should have regard to the PPG on Build-to-Rent development with the starting point for affordable housing therefore being that 20% of units would be Affordable Private Rented units at a discount of 20% to local market rents.

Appendices

Appendix A: CE Economic Projections Methodology

Methodology and data sources

Cambridge Econometrics (CE) have maintained and developed a highly disaggregated database of employment and GVA data by sector (12 broad sectors or more detailed 45 sectors[46]) from 1981 for all unitary authorities and local authority districts in Great Britain.

CE's projections are baseline economic projections based on historical growth in the local area relative to the region or UK (depending on which area it has the strongest relationship with), on a sector-by-sector basis. They assume that those relationships continue into the future. Thus, if a sector in the local area outperformed the sector in the region (or UK) as a whole in the past, then it will be assumed to do so in the future. Similarly, if it underperformed the region (or UK) in the past then it will be assumed to underperform the region (or UK) in the future.

They further assume that economic growth in the local area is not constrained by supply-side factors, such as population and the supply of labour. Therefore, no explicit assumptions for population, activity rates and unemployment rates are made in the projections. They assume that there will be enough labour (either locally or through commuting) with the right skills to fill the jobs. If, in reality, the labour supply is not there to meet projected growth in employment, growth could be slower.

The measure of employment is workplace-based jobs, which include full-time, part-time and self-employed. The data on employees in employment by sector, which distinguish full-time and part-time as well as gender for the local area, are taken from the Business Register and Employment Survey (BRES) and the earlier Annual Business Inquiry (ABI). Estimates of self-employment are taken from the Annual Population Survey (APS) from 2004 onwards. For earlier years estimates are generated under the assumption that the ratios of self-employed to employees at local level, by sector and gender, are the same as those at the corresponding regional level. The figures are made consistent with more recently-published estimates of jobs at a regional level (quarterly workforce jobs, June figures) published by ONS, which include people in the armed forces but do not include people on government training schemes.

The GVA data are consistent with sector data (balanced approach) at the local authority level from the ONS' Regional Accounts.

[46] See Tables C1 and C2 for the definitions of CE's detailed and broad sectors in terms of the 2007 Standard Industrial Classification.

Table C.1: Definitions of CE's 45 detailed sectors in terms of the 2007 Standard Industrial Classification (SIC2007)

Sector	SIC2007
Agriculture, forestry & fishing	01-03
Mining & quarrying	05-09
Food, drink & tobacco	10-12
Textiles etc	13-15
Wood & paper	16-17
Printing & recording	18
Coke & petroleum	19
Chemicals	20
Pharmaceuticals	21
Non-metallic mineral products	22-23
Metals & metal products	24-25
Electronics	26
Electrical equipment	27
Machinery	28
Motor vehicles	29
Other transport equipment	30
Other manufacturing & repair	31-33
Electricity & gas	35
Water, sewerage & waste	36-39
Construction	41-43
Motor vehicles trade	45
Wholesale trade	46
Retail trade	47
Land transport	49
Water transport	50
Air transport	51
Warehousing & postal	52-53
Accommodation	55
Food & beverage services	56
Media	58-60
IT services	61-63
Financial & insurance	64-66
Real estate	68
Legal & accounting	69
Head offices & management consultancies	70
Architectural & engineering services	71
Other professional services	72-75
Business support services	77-82
Public administration & defence	84
Education	85
Health	86
Residential & social	87-88
Arts	90-91
Recreational services	92-93
Other services	94-96

Table C.2: Definitions of CE's broad sectors in terms of CE's 45 detailed sectors and SIC2007

Broad sector	CE45	SIC2007
Agriculture, forestry & fishing	1	01-03
Mining & quarrying	2	05-09
Manufacturing	3-17	10-33
Electricity, gas & water	18-19	35-39
Construction	20	41-43
Distribution	21-23	45-47
Transport & storage	24-27	49-53
Accommodation & food services	28-29	55-56
Information & communications	30-31	58-63
Financial & business services	32-38	64-82
Government services	39-42	84-88
Other services	43-45	90-96

Appendix B: CE 2022 Baseline Projection Update Overview

March 2022

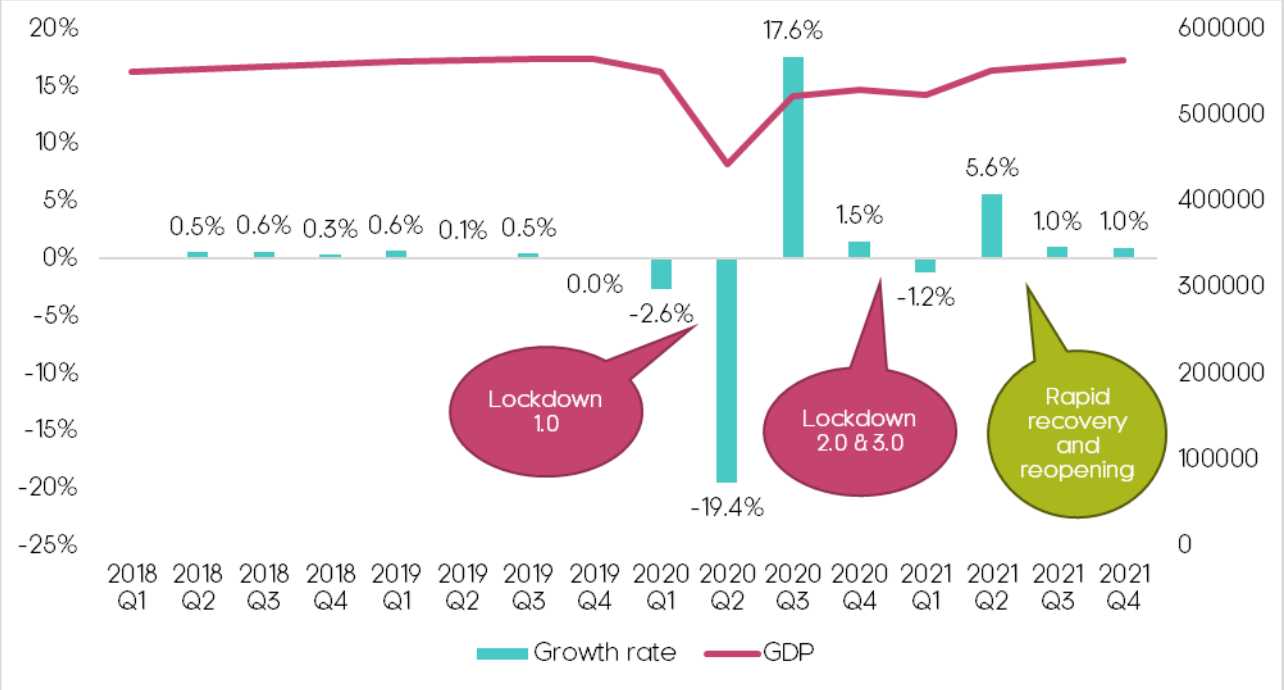
Assumptions regarding COVID-19

Overview

A sharp recession was experienced in the first half of 2020 (and the first quarter of 2021) as the UK government introduced public health measures and social distancing to contain the outbreak of COVID-19. Economic recovery has generally been robust as restrictions were wound down (i.e. in 2020H2 and 2021Q2), however the recovery has been uneven (across groups/regions/expenditure categories) and there is evidence of scarring in some economic variables. These developments are reflected in the quarterly GDP profile in

Figure 6.

Figure 6 Quarterly GDP 2018-2021[47]



In the near term, it is assumed that UK policy will transition towards "living with COVID" in which restrictions are no longer placed on activities of households and businesses. There are therefore no further COVID-related restrictions assumed in the forecast period.

The export outlook for UK has deteriorated since the previous forecast owing to supply chain issues (e.g. shortage of UK HGV staff, border disruptions, fuel shortages etc) and owing to impacts associated with UK exit of EU (see following section). These issues are expected to persist in the medium term, weighing down the recovery of exports over 2022-24 (note also, that unlike most other expenditure categories, published data

[47] https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2020

indicate that exports continued to contract in 2021, despite the partial reopening of the global economy).

Despite the reversal of restrictions, persistent economic scarring and a muted economic recovery is expected. This comes as a result of business closures, weak capital accumulation and lasting productivity impacts of the pandemic. Moreover, UK trade prospects remain very weak due to slow global economic growth and Brexit trade disruptions (see EU exit section below).

Given this, the central assumption of this forecast is a 2.4% increase in GDP in 2022 (the final 'recovery' year in which above-trend growth rates are observed) and a 1.3% increase in GDP in 2023.

- ***Key forecast components***

The post-pandemic economic trajectory (i.e. short-term economic prospects) will depend on the responses of households, businesses and government.

Households – Both upside and downside uncertainties are present and the future outlook of households is expected to be heterogenous. High levels of household saving have been recorded during the pandemic, which has helped fuel economic recovery. Household choices regarding these savings could influence the future outlook. It is assumed in this forecast that due to the distribution of savings (skewed to high-income households with lower propensity to consume) and due to the dampening effects of rising inflation, the outlook for consumption is relatively muted in comparison to 2021 growth rates. Another key consideration is productivity and pay growth. Pay growth is expected to be sluggish, in line with scarred productivity. Household spending is assumed to recover partially in the short term, but experience permanent impacts from the pandemic.

Businesses – Cash-flow issues are expected to weigh down on business investment in in the near/medium term, in light of rising input costs and weakened position as a result of economic shocks of COVID-19.

The medium-term prospects for the UK economy is dependent on developments in the global economic outlook. On the one hand, improvements in the global vaccine rollout have been observed since the previous forecast. However, new COVID variants and developments in Ukraine (war, sanctions and uncertainty) could dampen the global outlook.

- ***Long-term COVID-19 assumptions***

Due to a lack of conclusive evidence, the previous version of the forecast did not assume any specific long-term impacts of the COVID-19 pandemic. Since then, we have evaluated further evidence on:

- The impact of COVID on UK population and its distribution. In the previous forecast we had introduced a temporary adjustment to UK population and its distribution due to international and internal migration. Additional evidence suggests that this impact on migration will likely have a lasting effect on UK population. Therefore, we assume that during the pandemic around 350,000 people have permanently left the UK. We also assume that as a result of flexible working policies and lifestyle changes, 180,000 people have permanently relocated from London to other UK areas. Furthermore, some additional population scarring effects of the COVID-19 pandemic are also reflected in this update of the forecast, as the population projections have been updated to align with the 2020-based ONS population projections.
- We have also reviewed the evidence on the long-term impact of the COVID-19 pandemic on productivity and the capacity of the economy, not only as a result of health scarring directly due to COVID-19, but also as a result of the

response policies. There is limited evidence on how severe and lasting the health scarring could be, and therefore, we are not introducing any related assumptions in this forecast.

- School closures and remote education will likely lead to long-term impacts on human capital and productivity. In order to account for this, we are introducing an assumption based on the evidence from a McKinsey study, which found that lost education of the current student cohort could lower their lifetime earnings by approximately 3%. We apply this assumption as an exogenous shock to employee earnings in the model. Weighted by population and average earnings in different age groups, our assumption is that employee earnings will be 0.5% lower by 2040, when approximately 16% of the total workforce will have been at school during the pandemic. This is only a first-order direct impact, which could have further impacts throughout the economy calculated by the model. This impact is additional to the short and medium-term impacts of the pandemic already captured as part of our assumptions, or as part of dynamic modelling.

How the EU exit assumptions were developed

Overview

Our previous version of the forecast utilised assumptions on the future impact of Brexit that were aligned with the EU–UK Trade and Cooperation Agreement signed in December 2020. In broad terms, the agreement was assessed to be similar to a standard FTA with very few special provisions. Therefore, we adopted the following political assumptions for our forecast:

The agreed Free Trade Agreement with the EU avoids reversal to WTO terms, but results in some barriers to trade which will gradually phase in from 2022-30;

The points-based migration system introduced restrictions on inward migration from the EU;

The uncertainty about the possibility of no-deal Brexit was lifted in 2021. However, some uncertainty remains over the speed of regulatory divergence.

Some uncertainty remains over the possibility of changes to the agreement in the future that could affect the barriers to trade, such as the equivalence rules in the financial sector.

The UK will continue to seek other trade agreements, which will reduce barriers to trade with non-EU countries in the future.

Since the previous forecast version, we have assessed the relevant developments relating to new trade agreements. An FTA with Australia was signed in December 2021 (currently pending ratification), and similar deals with New Zealand and Singapore are at closing stages. The government suggests that the UK could join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) by the end of 2022, although CE assesses that the impact of such a deal could be limited, as the UK is already enjoying similar trade terms with most of the CPTPP members as a result of the 'rolled-over' agreements it had as an EU member. In addition, a consultation with the Gulf Co-operation Council (GCC) has been launched in October 2021, although the negotiations have not begun yet.

Overall, these developments are aligned with CE's assumptions used in the previous 2021 version of the forecast, which aside from the negative effect of Brexit on exports to the EU, also assumed a small increase in UK exports to selected nations as a result of the likely trade deals with New Zealand, Australia, Canada, and a future trade deal with the US (for which the negotiations are still at an early stage). We also reviewed the new evidence on the short-run impact of Brexit on UK-EU trade, which

tends to affirm our views. Therefore, Brexit trade assumptions remain identical to these supporting previous year's forecast.

In this version, we updated our migration projections to align with the newly-released 2020-based ONS migration projections. In comparison to the 2018-based projections, these suggest higher net migration to the UK in the next 20 years (by approximately 10,000 people annually, against the 2018-based projections). However, our assumption on the specific impact of Brexit on net migration from the EU remains unchanged from last year, as outlined below.

These political assumptions were converted into *economic* and *modelling* assumptions to explore the macroeconomic implications. The modelling assumptions provide inputs for our MDM-E3 model, the central economic model used in the forecast. For the forecast, we focussed primarily on the macroeconomic effects of Brexit on **exports**, **migration** and **investment**.

Export assumptions

We assume that UK trade with the EU will decline by 30.6% in the long term, with the impact on services trade being roughly twice as high as for manufacturing. We assume that a larger share of the total long-run impact happened immediately in 2021 (following the end of the transition period on 31 December 2020) for goods exports, compared to services exports. This reflects the relatively greater significance of non-tariff barriers at the border for goods trade (such as customs declarations), compared to services trade.

In addition, we have incorporated into the assumptions the potential effect of the future trade deals with non-EU countries, such as the US, Australia, Canada and New Zealand. We take a moderate view that is aligned with the potential impact of the UK-US free trade agreement modelled by the Department for International Trade. We assume that UK exports to the US, Australia, Canada and New Zealand will increase by 4.3% in the long run (relative to a counterfactual in which UK remains in EU). The implicit assumption on trade with the remaining parts of the world is that the UK will form trade arrangements similar to those it achieved through EU membership.

The resulting combined effect of these assumptions is a decline in UK exports to the world by 13.2% in the long run, which is similar in magnitude to the impact assumed in the previous version of the forecast.

We used the relationships in MDM-E3 to develop a forecast for imports; no additional economic or modelling assumptions were developed as inputs to the model with respect to imports.

Migration assumptions

Our assumption in this version of the forecast remains the same as in the previous version. It is assumed that the long run net migration to the UK will decline as a result of the new UK immigration policy. The starting point in developing the migration assumptions are the ONS population projections, which include migration assumptions. These migration assumptions have been updated in this version and are now based on the latest 2020-based ONS principal population projections[48], which we subsequently adjusted using our estimate of the effect of Brexit on *total* net migration to the UK.

[48] ONS National population projections: 2020-based interim

The adjustment remains the same as in the previous version of the forecast, and is aligned to the recommendation made by the Migration Advisory Committee in 2018[49], and the likely effect of the points-based system currently in place. Our assumption is that net annual migration will decline to 160,000 in the long run. Effectively, this reduces net immigration of the working-age population by 40,000 annually, a change primarily driven by a decline in net migration from the EU. This assumption is comparable with other estimates in the literature on the impact of Brexit.

The estimated decline in annual net migration is distributed across UK sectors according to the proportion of EU nationals in the sector's workforce. Data on workforce by nationality are obtained from the Annual Population Survey[50].

Investment assumptions

The investment assumptions remain unchanged from the previous version. Post-referendum uncertainty about the future of the UK-EU relationship depressed investment. While the new agreement clarifies the current relationship, our expectation is that reductions in UK-EU trade will outweigh any gains made through other trade agreements (as above). Combined with continued uncertainty about the speed of any future regulatory divergence, we continue to assume that UK investment post-Brexit will be lower than it might otherwise have been.

We assumed that the overall impact of the new agreement on investment in the UK will lead to a 5% decline in investment in the long-run (relative to a counterfactual in which UK remains in EU). This magnitude is similar to the realised impact of the post-referendum uncertainty. As post-referendum uncertainty lifted in 2021, in the short run the net combined impact of lifting of the uncertainty and the withdrawal agreement will be positive (viewed in isolation of the assumed impact of COVID-19), before the full negative impact of the withdrawal agreement is realised in the long run.

These long-run investment impacts have been distributed across broad sectors. We characterised these impacts according to several simplifying categories:

there would be no change in investment levels;
investment would adjust (up or down depending on the sector) based on changes to public spending;
investment would slow down:

- some businesses moving a proportion of their activity out of the UK – this would result in a decrease in investment, proportional to the lower level of activity in the UK;
- diminished growth prospects of a particular sector within the UK – this could further dampen investment intentions in the UK, as multi-national organisations in those sectors may choose to divert a disproportionate amount of their investment to countries with better growth prospects.

In the last case, expectations of diminished growth prospects may stem from factors such as lack of Single Market access, or skill shortages that have been further exacerbated by migration restrictions. Growth may also dampen in sectors that rely heavily on cooperation with other member states or funding from the EU. The mechanisms through which expectations of sectoral growth may diminish were not

[49] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/741926/Final_EEA_report.PDF

[50] ONS Number of UK nationals, EU nationals, and non-EU nationals in employment by industry and region, April 2018 to March 2019

explicitly accounted for when developing the economic and modelling assumptions. A judgement was taken on which of these are most applicable at a sectoral level.

Detailed explanations of the assumptions in the forecast

The summary table below presents a qualitative overview of the specific long-term economic assumptions of the impacts of Brexit by broad sector:

Table 20: UK forecast assumptions

Sector	Export assumptions	Employment assumptions	Investment assumptions
Agriculture	Mild negative impact on EU demand	Moderate employment constraints	Mild negative impact on investment
Mining & quarrying	No specific impact modelled	Moderate employment constraints	Moderate to pronounced negative impact on investment
Low and medium-low tech manufacturing	Mild negative impact on EU demand	Strong employment constraints	Moderate to pronounced negative impact on investment
High and medium-high tech manufacturing	Mild to moderate negative impact on EU demand	Strong employment constraints	Moderate to pronounced negative impact on investment
Construction	Mild negative impact on EU demand	Moderate employment constraints	Moderate to pronounced negative impact on investment
Utilities	Mild negative impact on EU demand	Moderate employment constraints	No specific impact modelled
Transport, distribution, retailing, accommodation, catering, and administrative and support services	Moderate to pronounced negative impact on EU demand	Moderate employment constraints	Moderate to pronounced negative impact on investment
IT, financial and insurance, real estate, professional, and scientific and technical services	Pronounced negative impact on EU demand	Mild employment constraints	Moderate to pronounced negative impact on investment
Public administration and defence, education, health and social work, and other services (arts and other services)	Mild negative impact on EU demand	Mild employment constraints	Mild negative impact on investment

Source: Cambridge Econometrics.

Mapping to broad sectors

The broad sector outlined above map to 86 MDM sectors according to the following classifications:

Broad sectors	MDM sectors	
Agriculture	1 Crop & animal product.	3 Fishing
	2 Forestry & logging	
Mining & quarrying	4 Coal	7 Other mining
	5 Oil extraction	8 Mining support service
	6 Gas extraction	
Low and medium-low tech manufacturing	9 Food products	18 Coke & petroleum
	10 Beverages	21 Rubber & plastic
	11 Tobacco	22 Other non-metallic
	12 Textiles	23 Basic metals
	13 Wearing apparel	24 Metal products
	14 Leather, etc.	30 Furniture
	15 Wood, etc.	31 Other manufacturing
	16 Paper, etc.	32 Repair & installation
	17 Printing & recording	
High and medium-high tech manufacturing	19 Chemicals, etc.	27 Machinery, etc.
	20 Pharmaceuticals	28 Motor vehicles, etc.
	25 Computers, etc.	29 Other trans. Equip
	26 Electrical equipment	
Utilities	33 Electricity	36 Sewerage
	34 Gas, heat & cooling	37 Waste disposal
	35 Water	38 Waste management
Construction	39 Construction	41 Specialised construction
	40 Civil engineering	
Transport, distribution, retailing, accommodation, catering, and administrative and support services	42 Motor vehicles trade	52 Publishing
	43 Wholesale trade	53 Film & music
	44 Retail trade	54 Broadcasting
	45 Land transport	55 Telecommunications
	46 Water transport	69 Rental & leasing

	47 Air transport	70 Employment activities
	48 Warehousing, etc.	71 Travel agencies, etc.
	49 Postal & courier	72 Security, etc.
	50 Accommodation	73 Services to buildings
	51 Food & beverage	74 Office admin.
IT, financial and insurance, real estate, professional, and scientific and technical services	56 Computer programming	63 Head offices, etc.
	57 Information services	64 Architect. & related
	58 Financial services	65 Scientific research
	59 Insurance & pensions	66 Advertising, etc.
	60 Aux. financial serv	67 Other professional
	61 Real estate	68 Veterinary
	62 Legal & accounting	
Public administration and defence, education, health and social work, and other services	75 Public admin. & def	81 Libraries, etc.
	76 Education	82 Gambling
	77 Health	83 Sport & recreation
	78 Residential care	84 Membership organ.
	79 Social work	85 Repair of goods
	80 Arts & entertainment	86 Other personal

Source: Cambridge Econometrics.

Appendix C: Understanding Affordability Implications

NOTE: This appendix outlines a piece of research by Cambridge Econometrics relating to housing affordability. It explores the relationship between housing demand and supply and affordability and is relevant to this HENA and to considerations for determining levels of housing supply.

The HENA uses a simple housing supply and demand indicator to assess the impact of the scenarios on housing supply relative to housing demand as defined by the employment projections. This appendix explores this relationship between housing and employment and verifies the use of employment as a viable proxy for housing demand.

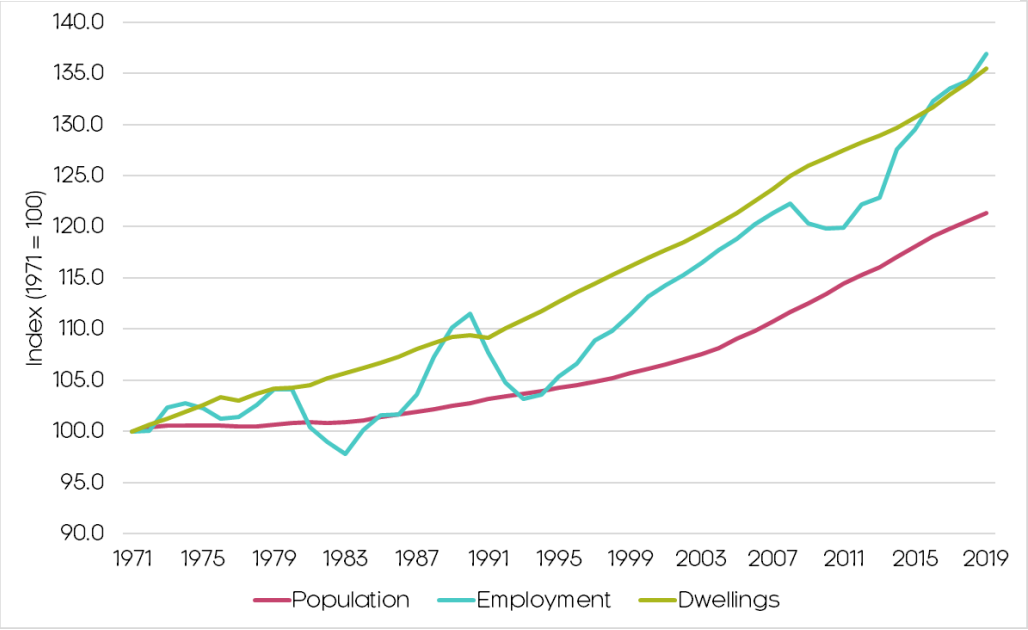
As part of the approach to understanding the implications for housing affordability in Oxfordshire from the economic trajectories and spatial scenarios, CE has undertaken a detailed, nationwide analysis of local house price and affordability dynamics to inform and build a robust methodology and accompanying model. This is summarised below.

Ultimately, by refining and applying this approach for Oxfordshire, CE will be able to clearly assess and test the potential affordability implications of the three economic and fifteen housing (three trajectories, each with an additional five contrasting spatial scenarios) projections.

Understanding the national affordability context

Before proceeding with the local analysis, it is beneficial to explore the national context around house prices and affordability, highlighting some its perceived determinants and drivers whilst considering the associated policy challenges and opportunities. This is increasingly important given the policy context around housing, with the UK's housing

Figure C0:1: Population, employment and dwellings trends in England, 1971-2019



market having been referred to as *"broken"* in recent years facilitated by a *"housing crisis"* which has stymied housing delivery in many local markets.[51]

Table C1: Population, employment and dwellings trends in England, 1971-2019

	At 1971	At 2019	Change, 1971-2019	% change, 1971-2019
Population	46,412,100	56,309,300	9,897,200	21.3%
Employment	22,237,400	30,438,700	8,201,300	36.9%
Dwellings	18,018,000	24,412,100	6,394,100	35.5%

Source: ONS, MHCLG, Cambridge Econometrics.

Figure C0:1 and Table C1 highlight the long run trends around three key housing market inputs: the total population, total employment (or 'jobs') and total stock of dwellings (or 'housing'). Since 1971, housing delivery[52] in England has actually grown consistently faster than its population since 1971, whilst employment – which understandably is much more sensitive to the economic cycle – has also outpaced population growth and has grown marginally faster than housing delivery.

Figure D0:2: Jobs per head and dwellings per head ratios in England, 1971-2019

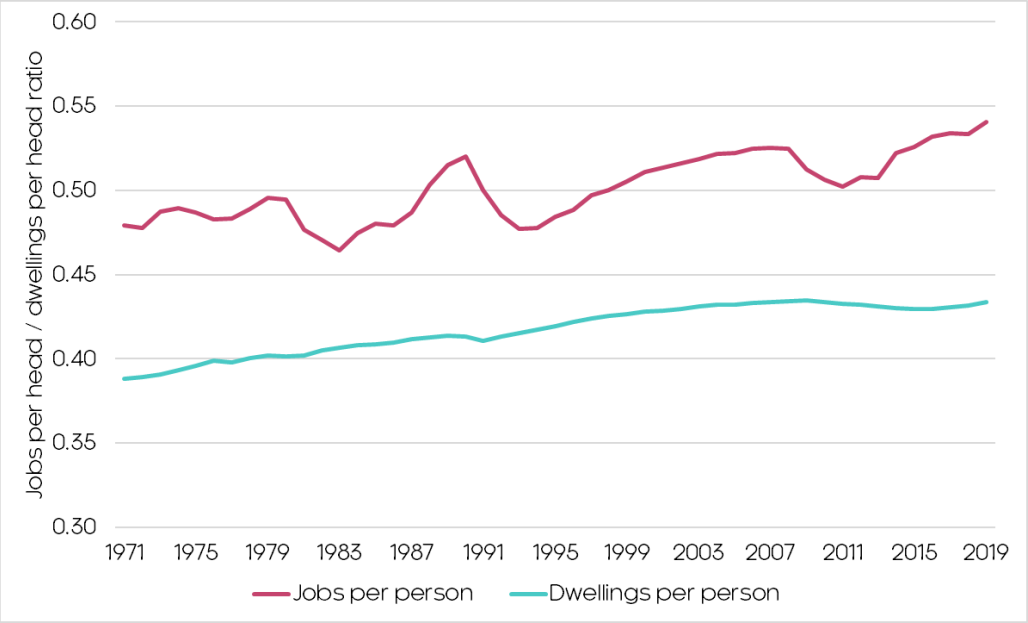


Table C2: Jobs per head and dwellings per head ratios in England, 1971-2019

	At 1971	At 2019	Change, 1971-2019	% change, 1971-2019
Jobs per head	0.48	0.54	0.06	12.8%
Dwellings per head	0.39	0.43	0.05	11.7%

Source: ONS, MHCLG, Cambridge Econometrics.

The result of this is that there are now both more homes and more jobs per person in England than ever before, as Figure D0:2 and Table C2 show. Again, whilst employment has trended upwards it has followed a more volatile path in line with the economic cycle. Dwellings per person has trended upwards much more smoothly, though with somewhat limited change since 2000 alongside a notable slowdown after the 2008 financial crisis.

[51] See for instance the Governments housing white paper 'Fixing our broken housing market' (2017)

[52] Note this particular definition refers to net additional dwellings, rather than the narrower housebuilding definition; unlike the former, the latter only considers gross dwelling additions and excludes demolitions, change of use, extensions/additions etc.

Figure C0:3: Earnings, rental prices and house prices in England, 1971-2019

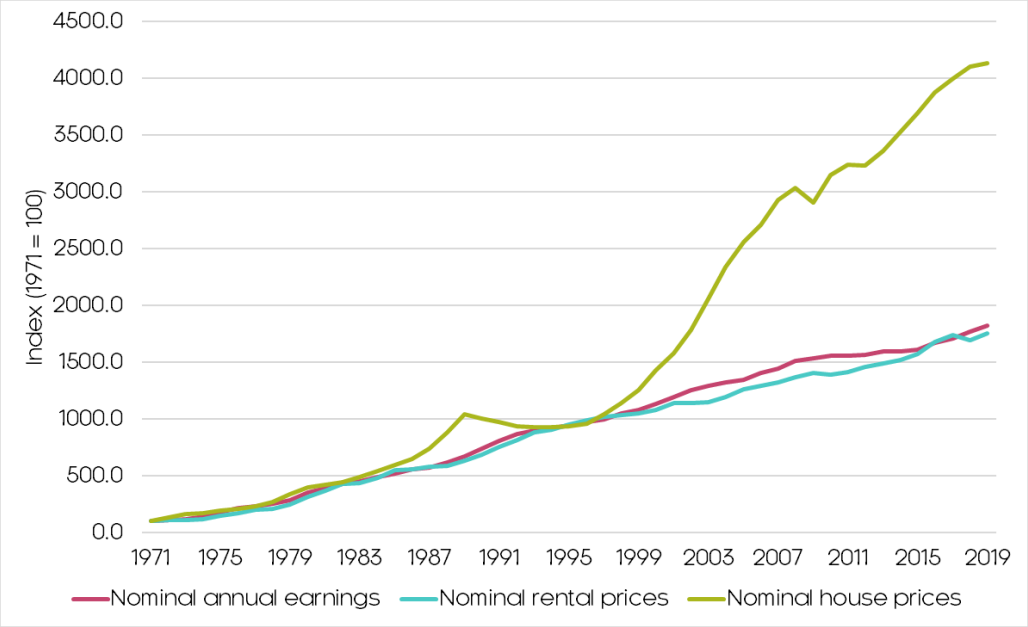


Table C3: Earnings, rental prices and house prices in England, 1971-2019

	At 1971	At 2019	Change, 1971-2019	% change, 1971-2019
Nominal average (annual) earnings	£1,700	£30,200	£28,500	1717.5%
Nominal average (annual) rental prices	£50	£860	£810	1651.0%
Nominal average house prices	£7,400	£304,500	£297,100	4026.7%

Source: ONS, Cambridge Econometrics.

Figure C0:3 and Table C3 consider the long run trends around the two alternative costs of housing – the cost of buying a home (house prices) and the cost of renting a home (rental prices)[53] – alongside average annual earnings. Since 1971, (nominal) house price growth has significantly outstripped (nominal) growth in rental prices. After being reasonably well aligned up to the late 1990's, the two have decoupled drastically; since 1971, the average house price has increased a substantial 40x over, more than twice the increase of the average rental price.

Wage growth and rental price growth (in nominal terms) meanwhile have been highly correlated, both increasing 17x over since 1971. The only notable decoupling of this relationship was a period during the late 1990's-2000's, where growth in wages actually eclipsed that of rental prices up until the 2008-09 recession, where it has since returned to trend. Understanding rental prices is important within housing affordability analysis, as economic theory suggests that they represent the 'true cost' of housing for consumers - and are therefore the most sensitive to changes in demand and supply.[54]

[53] Note that these particular measures of house and rental prices are not hedonically priced, in that they do not account for changes in housing quality or composition over the time series

[54] For a summary overview of this theory and relationship see Wren-Lewis (2018). For more detailed explanations and additional references, see UK Centre for Collaborative Housing Evidence (2018) p.p. 14-18 and Oxford Economics p.p. 16-18 (2016)

Figure C0:4: Rental affordability (left axis) and house price affordability (right axis) in England, 1971-2019

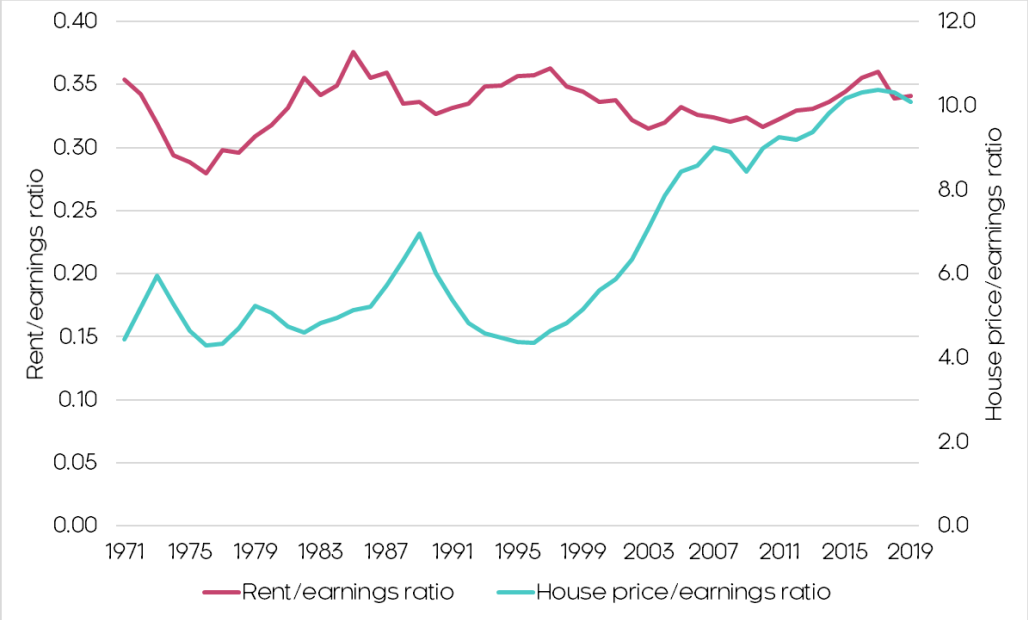


Table C4 Rental price affordability and house price affordability in England, 1971-2019

	At 1971	At 2019	Change, 1971-2019	% change, 1971-2019
Rent/earnings ratio; 'rental affordability'[55]	0.35	0.34	-0.01	-3.7%
Price/earnings ratio; 'house price affordability'[56]	4.44	10.08	5.64	127.1%

Source: ONS, Cambridge Econometrics

Bringing these three variables together, Figure C0:4 and Table C4 present the relative affordability ratios (price relative to earnings) for house and rental prices. Since 1971, rental affordability has stayed relatively constant at around a third of annual earnings, with few significant deviations, though it had been trending upwards for the decade after the financial crisis. Housing affordability meanwhile was relatively stable from the 1970's to 1990's at around 4x annual earnings before accelerating sharply in the 2000's to an unprecedented 10x annual earnings.

Clearly the relative growth in house prices over the past 20 years has presented a significant challenge to aspiring homeowners, and is widely considered as a candidate example of the UK's 'broken' housing market. However, when both the ratio of dwellings per person and rental affordability has stayed so consistent over this timeframe, it is hard to justify calling this a housing 'crisis' – at least at the aggregate, national level.

So what is driving the divergence in house prices and rental costs, especially considering the latter is supposed to represent the 'true cost' of housing?

[55] In line with ONS guidance, rental affordability has been calculated as; annualized average rental price / annualized average workplace earnings. Average here refers to the mean. The median is typically preferred, but data is unavailable over the timeframe required.

[56] In line with ONS guidance, house price affordability has been calculated as; average house sale price / annualized average workplace earnings. Average here refers to the mean. The median is typically preferred, but data is unavailable over the timeframe required.

Figure C0:5: Rent-house price ratio and real interest rates in England, 1971-2019

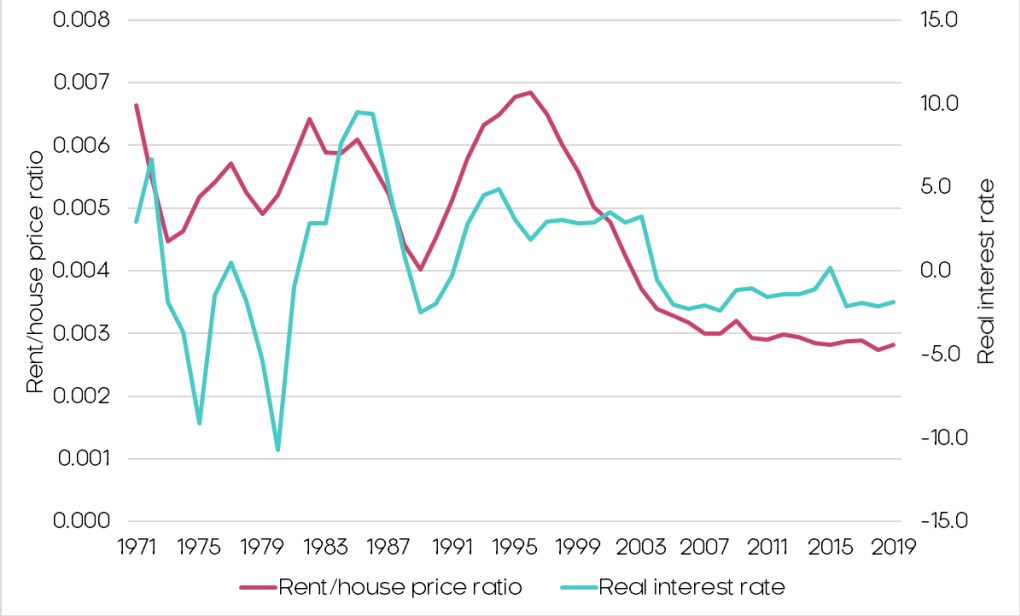


Table C5: Rent-house price ratio and real interest rates in England, 1971-2019

	At 1971	At 2019	Change, 1971-2019	% change, 1971-2019
Rent/house price ratio	0.01	0.00	0.00	-57.6%
Real interest rate	2.96	-1.86	-4.82	-162.7%

Source: ONS, Bank of England, Cambridge Econometrics

As highlighted in Figure C0:5 and Table C5, one candidate explanation[57] is that the persistent decline in interest rates (in both nominal and real terms) during the 1990's and early 2000's, and sharply accelerated following the 2008-09 recession, has contributed and since maintained inflated house prices whilst subduing rental prices. In theory, this can happen for a variety of reasons; in a low interest rate environment:

- Landlords have to charge less to cover their mortgage costs, **reducing rental prices**
- It is easier and more affordable for potential house buyers to get a mortgage, hence the demand for renting decreases, **reducing rental prices and increasing house prices**
- Housing becomes a better and more attractive investment option, for both consumers and investors (both domestic and international), **increasing house prices**

Of course, this has implications for price/affordability-focussed housebuilding strategies; with house prices increasingly sensitive to and determined by a centralised monetary system, even the most substantial and well targeted strategies may not deliver the desired change in prices/increase in affordability. However, this also means that the correct and effective targeting of independent, locally-specific factors becomes ever more important for local policymakers – which are considered in the next chapter.

Building the local evidence

Having considered the national context and established some of the key drivers and determinants of house prices and affordability, it is important to consider how these correspond at the subnational level, and what role local effects play in determining local prices and affordability. Notably, at this level much greater variability and functionality can

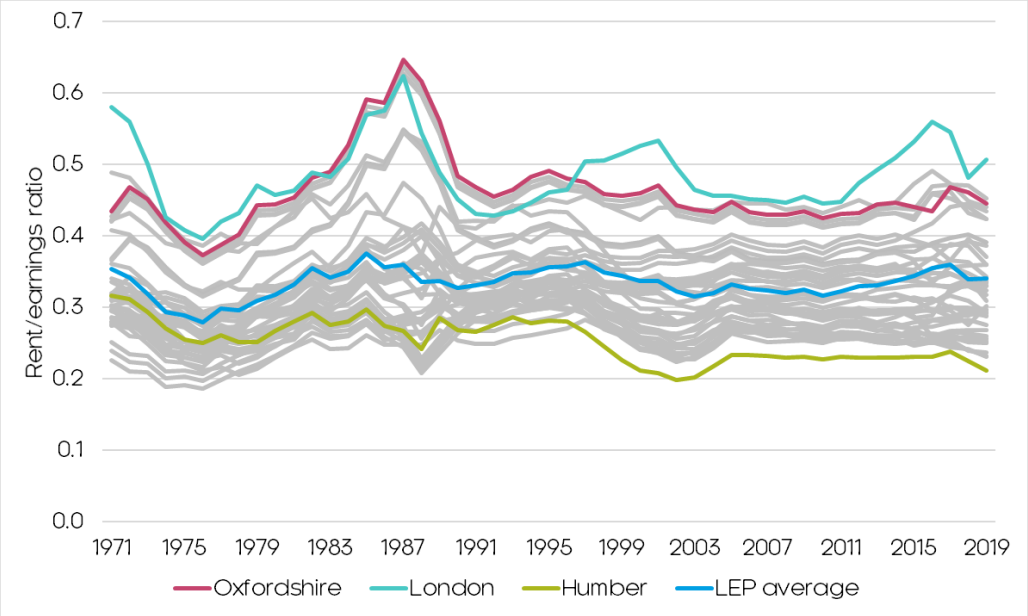
[57] For instance, as observed by the OECD (2011) and Oxford Economics (2016)

be seen in some of the aforementioned variables, reflecting independent, locally-specific characteristics and factors driving and determining local markets.

Though housing market data is available for regional markets (e.g. the South East NUTS1 Region), which are relatively functional and widely reported in subnational analysis, these geographies often fail to capture the unique and localised markets – and thus affordability challenges - within them; for instance, though both within the North West region, Manchester's housing market and affordability challenge is markedly different from Cumbria's.

Therefore, the following analysis considers the evidence at the Local Enterprise Partnership (LEP) level[58], which comprises 38 intra-regional areas broadly analogous to functional economic areas (which often overlay with functional housing market areas). Though more detailed geographies are available (e.g. Unitary and Local Authority areas), these often map poorly to functional housing market areas, and decrease data quality and availability.

Figure C0:6: Rental affordability across England, 1971-2019



Source: ONS, Cambridge Econometrics

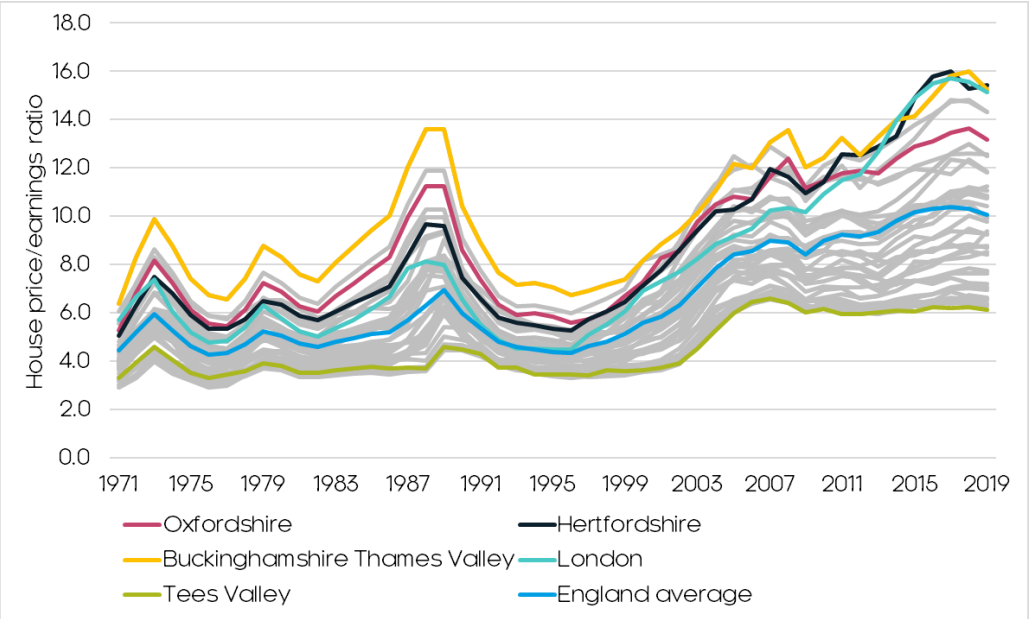
To begin with, Figure C0:6 considers the rental affordability ratios of the 38 LEP areas. Unsurprisingly, London is a relative outlier, with the highest rental affordability ratio (least affordable for renting) in the country; the average London worker can expect to spend at least half their gross earnings on rent. This is underscored by the Humber, which has the lowest rental affordability ratio (most affordable for renting) in the country; the average Humber worker could expect to spend only a fifth of their earnings on rent.

However, what is most notable from the data is that for most if not all LEP areas, current rental affordability ratios are not unusually high or trending notably upwards when compared across the whole period – even London for instance had lower rental affordability in the early 1970s and mid-1980s than what it does today. Again, when considering rental costs are supposed to represent the 'true cost' of housing for consumers, it is hard to justify the current prescription of a "housing crisis", even in less affordable parts of the country such as London and the South East.

[58] Defined here as excluding overlap areas

Figure C0:7 replicates this analysis but for housing affordability. Here we see much greater regional variance and dispersion in affordability ratios; the average worker in London, Hertfordshire, and Buckinghamshire for instance can expect to spend 15x their annual earnings on purchasing a home. For the average worker in the Tees Valley, this more than halves to 6x times annual earnings. As with rental affordability though, what is of particular interest is the movement in these ratios over time.

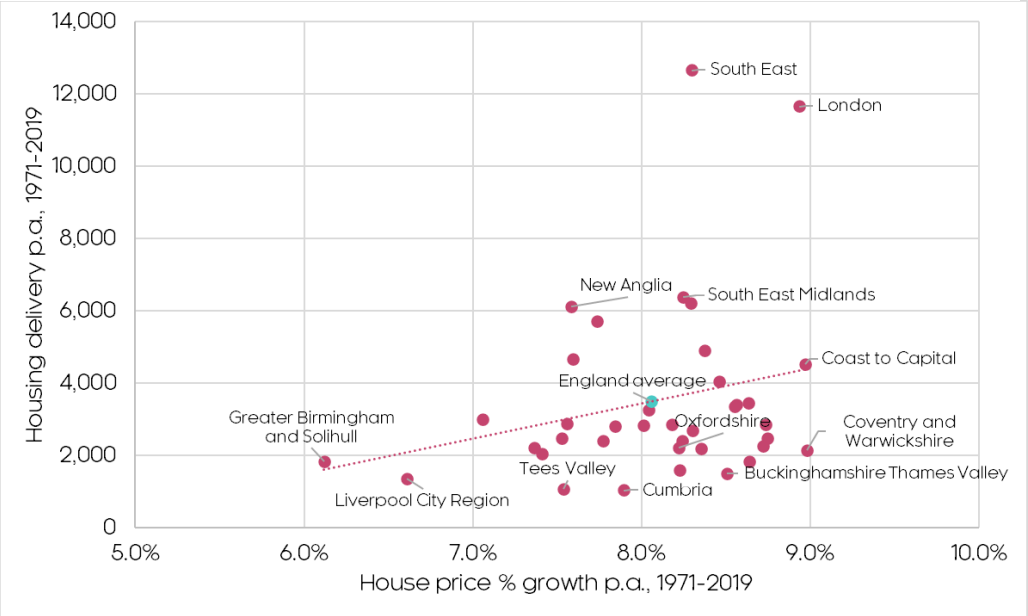
Figure C0:7: House price affordability across England, 1971-2019



Source: ONS, Cambridge Econometrics

Whereas a number of 'Home County' LEP areas have had persistently high housing affordability ratios, London was only mid-ranking until the early 2000's. Many areas saw their fastest increase in housing affordability ratios (i.e. a decrease in affordability) over the late 1990's to early 2000's, but since the 2008-09 financial crisis, affordability ratios have stayed stubbornly high for almost all areas (even those weaker performing economically), which is in contrast to previous recession and recoveries e.g. early 1990's recession, early 1980's recession and mid-1970's recession.

Figure C0:8: Housing delivery and house price growth across England, 1971-2019



Source: ONS, MHCLG, Cambridge Econometrics

One frequently proposed solution to counteract or at least subdue rapid local house price growth and decreasing affordability is to increase local housing delivery. However, as Figure C0:8 shows, it should be emphasised that there is actually a positive correlation between housing delivery and house price growth: the LEP areas that have built the most houses are also amongst those to have experienced the fastest growth in house prices.

Of course, this doesn't mean that building more homes will increase the rate of house price growth and further decrease affordability - high house prices likely attract and incentivise further housing growth, though the relationship is probably bi-directional. But this doesn't help the argument that increased local housing delivery it is an effective method of reversing or even slowing it – as with many things, it is much more complicated than that.

Figure C9: Housing delivery and employment growth across England, 1971-2019

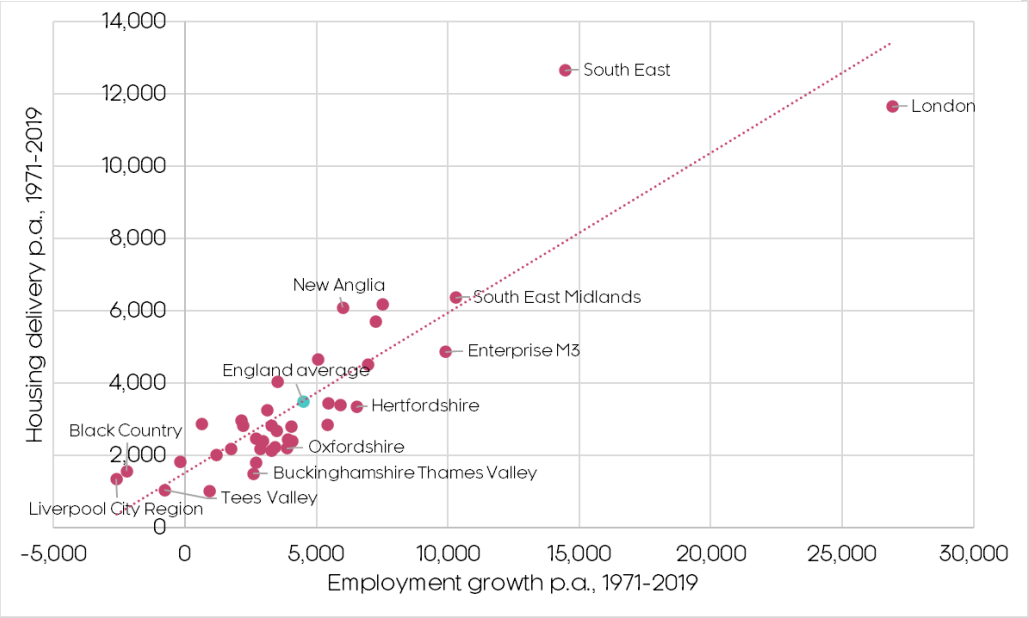
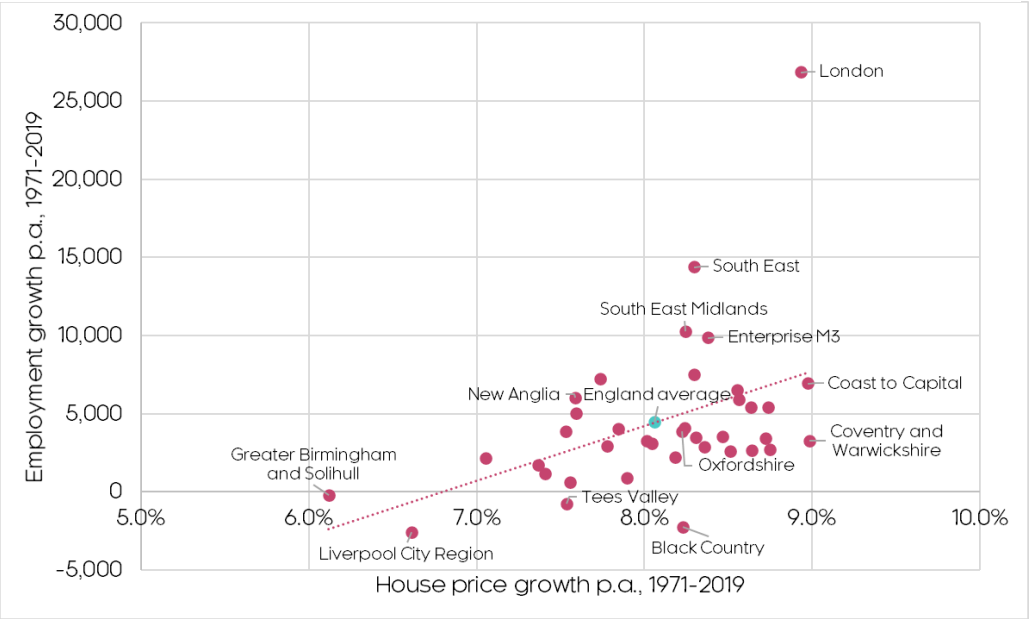


Figure C0:9: Employment growth and house price growth across England, 1971-2019

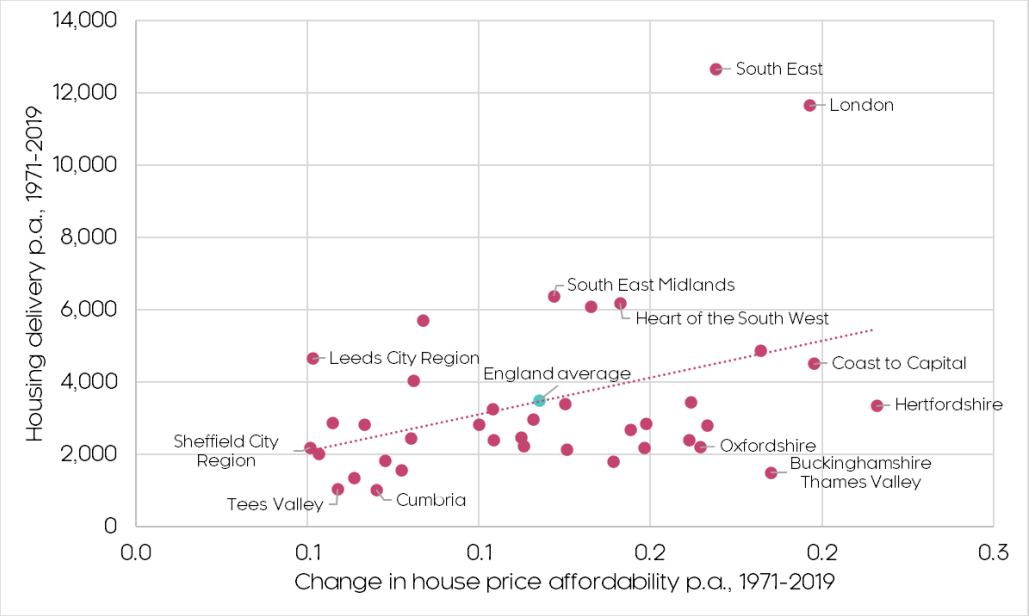


Source: ONS, MHCLG, Cambridge Econometrics

One of the reasons for this is because housing delivery tends to correlate with employment growth (as shown in Figure), and employment growth correlates strongly with house price growth (as shown in Figure C0:9). Broadly speaking, more housing means more people, leading to a growth in both labour supply and demand for local services. Both of these are then likely to stimulate additional employment growth.

For instance, when looking at the relationship between employment growth and house price growth (Figure C0:9) it is likely that additional employment growth drives additional demand for housing in the area, putting upward pressure on house prices. Thus the downward pressure created by additional supply coming onto market, is likely to be partly, or maybe even wholly, cancelled out by this upward pressure.

Figure C0:10: Housing delivery and changes in house price affordability across England, 1971-2019



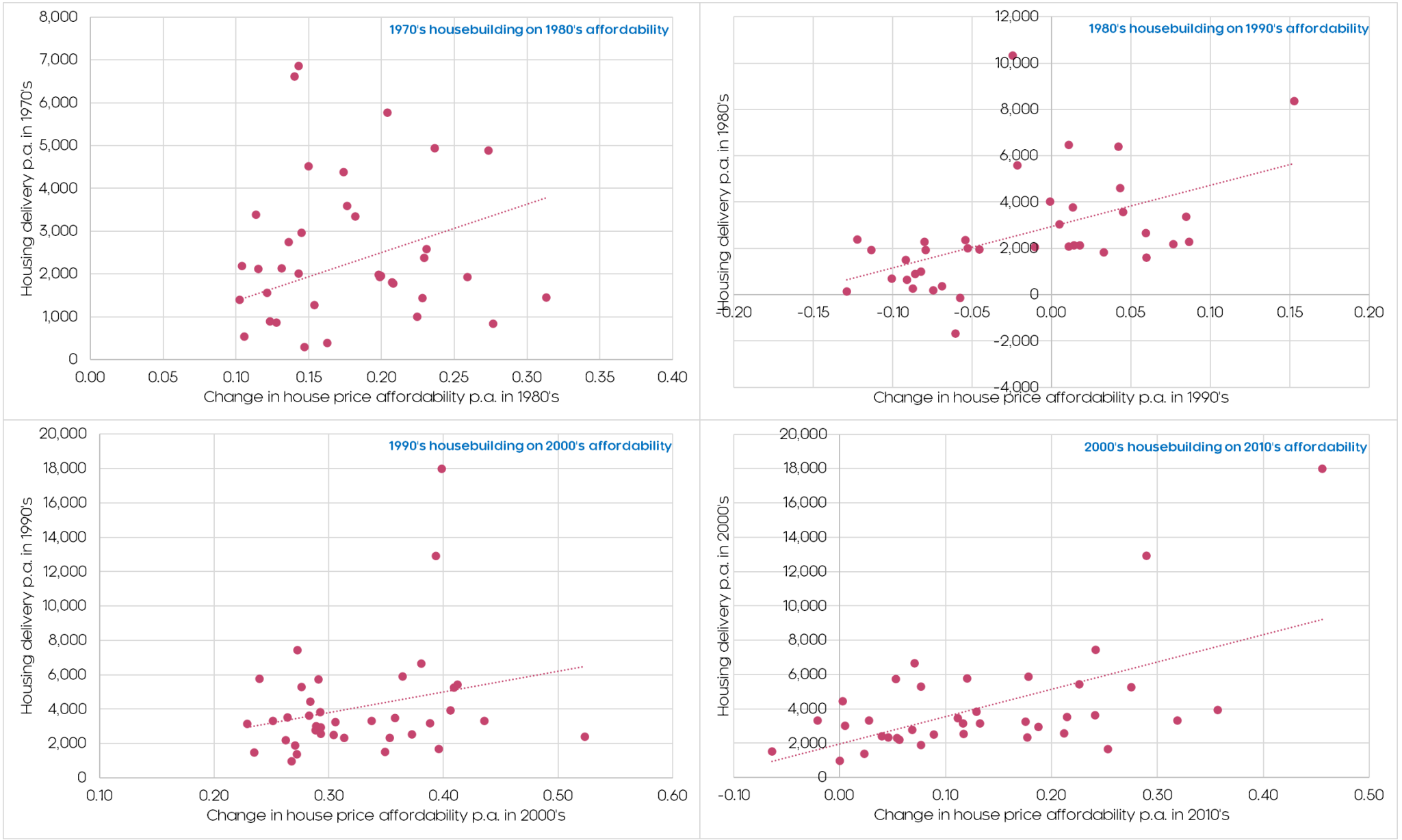
Source: ONS, MHCLG, Cambridge Econometrics

As Figure C0:10 shows, the same positive correlation that is seen between an areas housing delivery and house price growth is also seen between an areas housing delivery and its change in affordability (ratios); LEP areas that have built more homes have typically seen a greater increase in affordability ratios (decrease in affordability). Again, this shows us that within local areas, housebuilding alone will not be sufficient to tackle affordability pressures.

Of course, housebuilding at time *t* is not an immediate input into house prices at time *t* – there is often a lagged effect. To try and better understand potential causality of this relationship, Figure C0:11 (presented over the following page) considers the lagged relationship between housing delivery and affordability changes a decade later – do the LEP areas that build the most houses see affordability ratios deteriorate (i.e. the area becomes more affordable) the following decade?

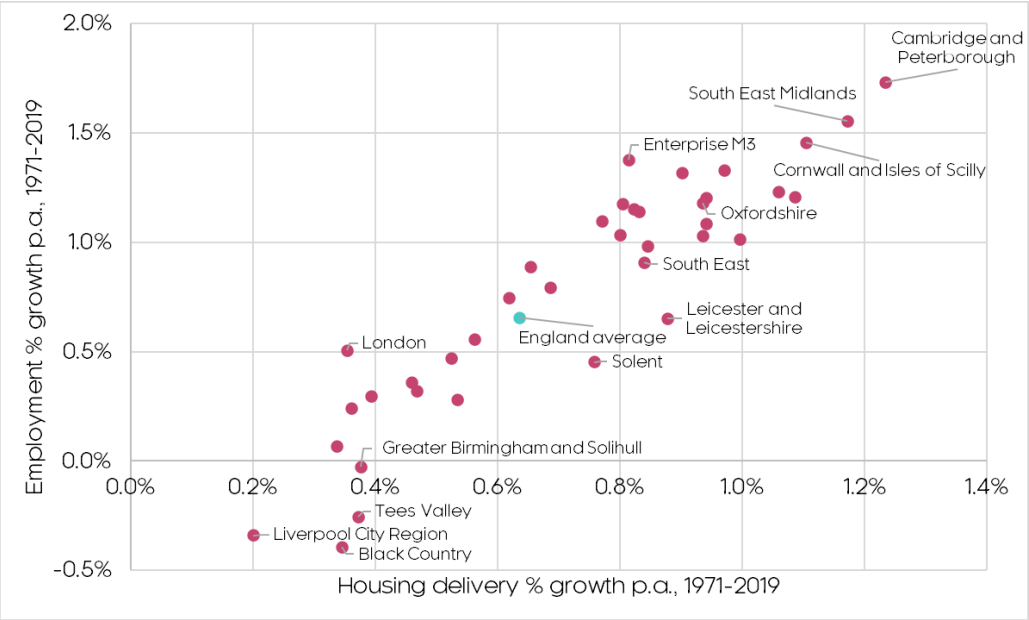
Across the time series, we continue to see a clear and positive relationship between higher housing delivery in an area and an increase in housing affordability ratios (a decrease in affordability). Generally, this relationship has also become more significant over time, though this has not been a continuous process, with the relationship weakening slightly in the 1990's and 2000's – a time where many areas saw rapid increases in their affordability ratios, as housing and financial markets became increasingly liberalised.

Figure C0:11: The lagged relationship between housing delivery and changes in house price affordability across England, 1970's-2010's



Source: ONS, MHCLG, Cambridge Econometrics

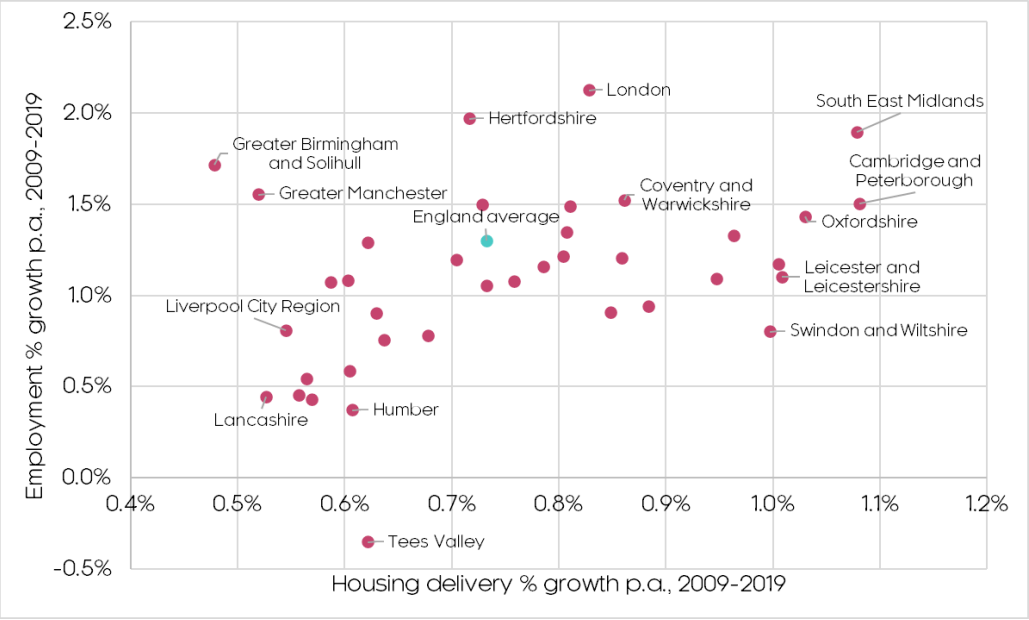
Figure C0:12: Employment growth and housing delivery growth across England, 1971-2019



Source: ONS, MHCLG, Cambridge Econometrics

As we have seen previously, there is a strong correlation between housing growth and employment growth. So what areas have grown the fastest since 1971, and how might this have impacted on affordability? As Figure C0:12 shows, Cambridge and Peterborough and neighbouring South East Midlands have emerged as the two fastest growing areas. Notably, Southern or rural LEP areas have seen faster growth than Northern or urban LEP areas, whilst London has grown comparatively slowly over this time period.

Figure C0:13: Employment growth and housing delivery growth across England, 2009-2019

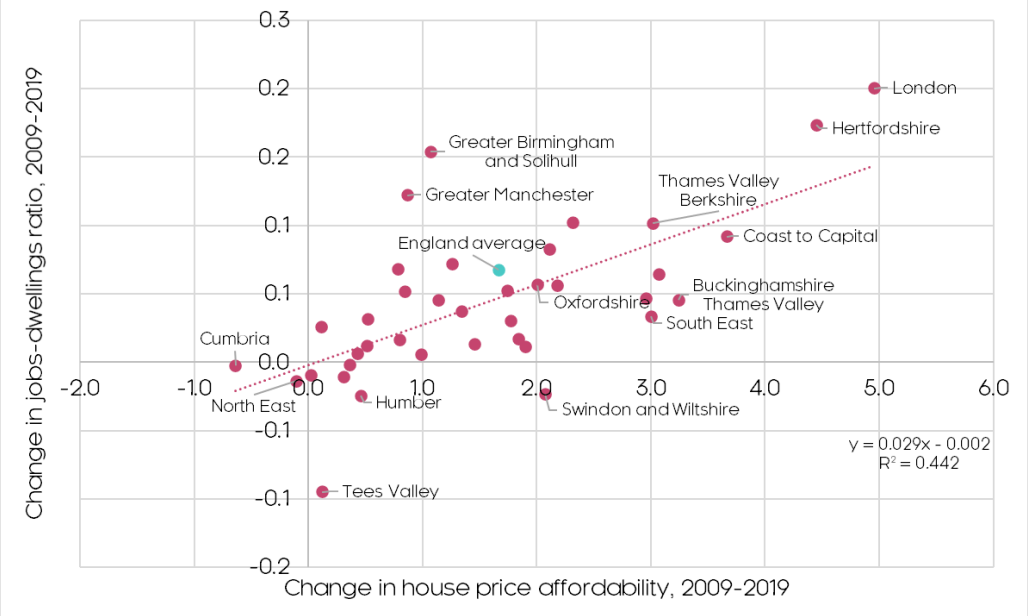


Source: ONS, MHCLG, Cambridge Econometrics

Most of these trends still hold even when looking at just look at the last decade, as shown in Figure C0:13. Now Cambridge and Peterborough and the South East Midlands are joined by Oxfordshire as the fastest growing LEP areas in England. Southern and rural LEP areas are still typically growing faster than Northern and urban LEP areas. Growth in London has also accelerated, particularly in employment. Some Midland and Northern LEP areas have also seen robust employment growth, but slower housing growth.

However, this scatter plot is notably less tightly bound over the shorter time period, raising the question of whether differences in the ratio of housing delivery to job creation affect affordability?

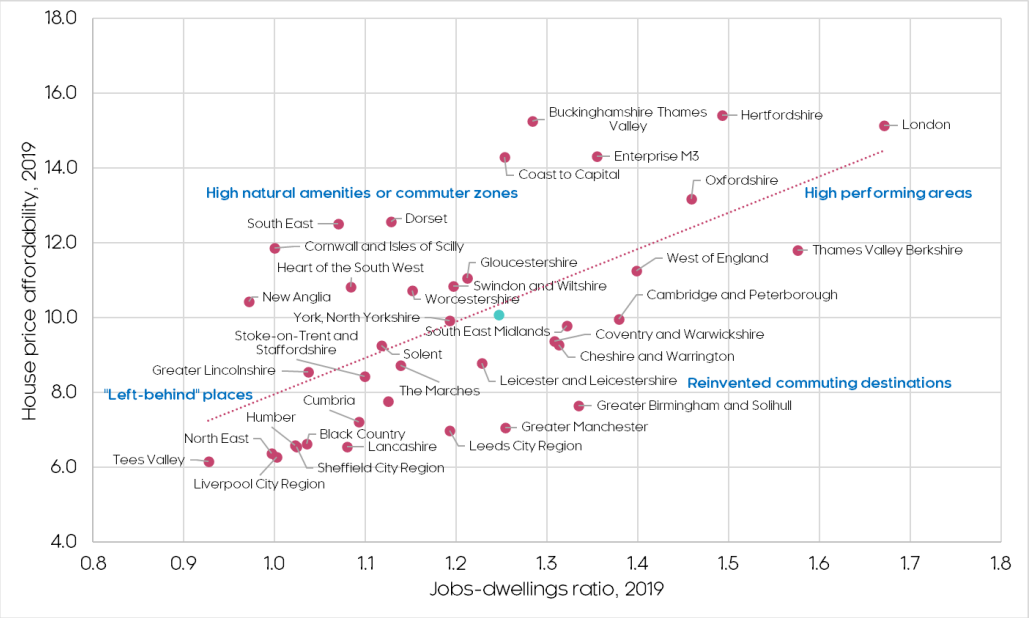
Figure C0:14: Changes to jobs-dwellings ratios and house price affordability across England, 2009-2019



Source: ONS, MHCLG, Cambridge Econometrics

Indeed, as shown in Figure C0:14, LEP areas that have created jobs faster than they have built houses over the past decade have on average seen an increase their affordability ratio (that is, a decrease in affordability). Therefore, when considering the role of local effects in determining prices, it is the interaction between employment growth and housing delivery that can contribute to determining the affordability of an area. Therefore, even given the trends identified at the national level, local economic context still matters for affordability.

Figure C0:15: Jobs-dwellings ratios and house price affordability across England, 2019



Source: ONS, MHCLG, Cambridge Econometrics

Reflecting the strength of this relationship, areas with similar characteristics and fundamentals also largely cluster together – as shown in Figure C0:15 - enabling thematic groupings to be identified:

- **'Left-behind' places**: areas experiencing long-term economic underperformance (low-growth, high unemployment, low skills), driving down prices (relative to wages) and jobs densities. Dwelling totals can appear inflated due to a higher proportion of vacant dwellings. Examples include Tees Valley, Liverpool City Region, and Humber.
- **High natural amenities or commuter zones**: typically rural and/or coastal areas with relatively low jobs densities but higher than expected prices. The latter is driven by higher local amenity values in these areas (often proxied by high tourism activity) and/or commuting proximity to major urban centres. Examples include Dorset, South East, and New Anglia.
- **Reinvented commuting destinations**: a diverse grouping of areas, historically stable or underperforming, now reinvented as leading regional economic centres with high rates of in-commuting. This results in higher jobs densities but comparatively lower – but often increasing – prices (relative to wages). Examples include Greater Manchester, Greater Birmingham and Solihull, and South East Midlands.
- **High performing areas**: areas with highly successfully and competitive economies, typically regional commuting centres, resulting in very high jobs densities. This drives substantial demand for dwellings, which alongside typically high local amenity values, results in higher prices (relative to wages). Largely found in the South, examples include London, Oxfordshire, and Hertfordshire.

Such categorisations can be beneficial for understanding local housing markets, and resultantly the effective shaping of local housing strategies.