FINAL REPORT





Savills report to NIC

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Executive Summary

This report reviews the residential and commercial property markets within the Cambridge, Milton Keynes, Oxford and Northampton corridor and whether these markets are functioning in a way that is consistent with the growth ambitions and potential of the area. It considers whether government interventions, including investment in new and improved transport infrastructure, could unlock and accelerate new employment space and homes, to realise the growth potential of the corridor.

Property Market Signals and Drivers

The area's property markets are in large part driven by its high growth economy, with high levels of employment growth requiring additional workspace and new homes with access to employment, via either proximity or transport infrastructure. Parts of the area, most notably Oxford and Cambridge, have experienced high levels of house price growth and deteriorating housing affordability in and close to the cities, leading to long travel to work journeys and increasing traffic congestion, constraining productivity and growth potential. There is also an urgent need for an increased supply of workspace across the corridor. This is an issue for most of the corridor, being particularly acute for the office markets in locations that include Oxford and Cambridge, plus the distribution and industrial market along the M1 corridor.

The supply of new homes and employment space needs to increase significantly and in the optimum locations relative to new and existing infrastructure, for the growth plans and sustainable growth potential of the corridor to be realised.

New Housing Supply

The supply of new homes across the area has increased significantly in recent years, reaching some 14,000 net additional homes in 2014/15, the most recent year of complete data, with a further increase in delivery likely to have been achieved in 2015/16¹. Assuming that recent delivery is around 15,000 homes, this is an increase of some 45% from 2012/13.

This is around 5% less than the aggregate level of housing targets in Local Plans across the corridor. Should the housing market soften, there would be downside risk to these levels of housing supply being maintained. With regard to the risks presented by the uncertain economic impact of the UK leaving the European Union, at this relatively early stage the evidence suggest that in most markets other than central London, rates of sale of new homes have been maintained.

However, the aggregate level of Objectively Assessed Housing Need (OAN) across the corridor, as measured by local authorities' Strategic Housing Market Assessments (SHMAs), is significantly higher than housing targets. Some of the emerging Local Plans in the corridor are in the process of responding to this higher level of housing need, with the most notable example being the Oxfordshire authorities. In aggregate across the corridor, recent housing delivery is some 25% less than SHMA need, with significant variation in the scale of shortfall within the area. The largest gaps are in Oxfordshire, Swindon, Hertfordshire and Northamptonshire.

Planning for Housing Growth

There are wide variations in OAN numbers across the corridor, as measured by the respective SHMAs. Oxford and Cambridge are cities with comparable levels of employment growth and market signals indicating deteriorating housing affordability, yet OAN has been assessed at 2.4% of existing stock per annum and 1.4% per annum respectively. The Local Plan Expert Group

¹ Since this report was completed, new DCLG data show that housing delivery across the corridor was 16,400 net additional dwellings in 2015/16, confirming that 15,000 homes is a reasonable indicator of recent delivery across the corridor over the last two years.



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has identified problems with the varying methods used in SHMAs to respond to market signals and align housing need with planned economic growth and employment growth.

There is a consensus amongst studies of housing need across the whole of England that need is at least 300,000 additional homes per annum, equivalent to 1.3% of existing stock per annum. Housing supply is most socio-economically valuable when provided in those local economies showing the highest land values, this being a signal of high demand relative to constrained supply. In a national context, the corridor has above average land values, with values significantly above average in and close to Oxford and Cambridge. This would indicate that housing need across the corridor is above the national average of 1.3% of existing stock per annum and that, in Oxford and Cambridge, it is significantly above this level.

OAN across the corridor is equivalent to 1.4% of existing stock per annum, just more than the national average of 1.3%. This is unlikely to be a sufficient differential from the average, given the economic and market strength of the corridor. Furthermore, it takes no account of the potential of the corridor to absorb housing need from other parts of the country that are constrained by the availability of developable land, most notably London and parts of the south east. To demonstrate this point, the OAN numbers for Milton Keynes and Aylesbury Vale are 1.6% and 0.9% of existing stock per annum, significantly less than the previous housing targets derived from the former Regional Spatial Strategies which recognised the capacity of the corridor to absorb such need.

Alongside issues around assessment of housing need, the discrepancy between SHMA OAN and housing targets across the corridor is a cause for concern. The Local Plan Expert Group has recommended a strengthening of the Duty to Cooperate amongst local planning authorities, to ensure that aggregate need is matched by aggregate housing targets set out in Local Plans across functioning housing market areas. Government adoption of the LPEG recommendations would go a long way towards removing the plan making constraints to housing growth that we have identified.

New Commercial Property Supply

Demand for office property is growing at a faster rate than supply. If past trends continue then we can expect demand to exceed total supply in the next five to ten years. This trend is more acute around Cambridge, the M1/ M11/M25 intersection settlements and around the Northampton, Bedford and Milton Keynes area. The last three years has seen a sharp reduction in the proportion of total stock available for rent. In Oxford and Cambridge there is strong evidence that there is little suitable office accommodation available. This has translated into a sharp increase in asking rents, up by over 18% in the Cambridge market and 13% in the 'Oxford and Spillover' market over the past two and a half years.

There is a similar trend for industrial and warehousing property. On current trajectories, demand for property will exceed supply in the next three to eight years. This is most acute along the M11 and M1 corridors where demand has grown strongly over the past two years. There has been an equally sharp reduction in the total stock available for rent across all four identified markets in the corridor. Between 2009 and 2016 the vacancy rate has fallen from 12-15% to 6-7%, suggesting that most of the residual stock has been occupied.

Planning for Workspace Growth

Local authorities vary in the approaches they take to employment land reviews and allocations policies, with much information being outdated and/or incomplete. A more structured and consistent approach to employment land reviews would allow for more effective strategic planning across the corridor. The lack of consistent data means that we have not been able to draw firm conclusions on the overall planned supply of employment land in the different market areas. However, the analysis in this report does indicate that employment land supply is not responding quickly enough to meet need.



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Growth Scenarios

We have drawn up three growth scenarios, cross referencing with the other workstreams to this project, to test the potential for additional economic growth in the corridor via:

- an increase in housing supply in markets where affordability and travel to work patterns are constraining growth; and
- investment in transport infrastructure to:
 - o accelerate housing delivery in areas of most need; and
 - o enable the provision of additional workspace in areas of highest most productive employment growth.

. The scenarios comprise:

- 1. Business as usual, where housing delivery continues at its recent rate of 15,000 additional homes per annum (1.1% of existing stock), albeit that there is some risk that delivery could be lower, should housing market conditions deteriorate.
- 2. Incremental growth, in which housing delivery increases to meet the housing need identified by SHMAs across the corridor, capturing emerging plans that are responding to higher SHMA numbers, notably the Oxfordshire authorities. This equates to housing delivery of 20,000 additional homes per annum. Relative to the baseline scenario, this scenario adds 22% to GVA across the corridor in the period to 2050.
- 3. Transformational growth, in which high levels of housing supply make a significant improvement to the affordability of housing, unlocking additional economic growth potential. Housing delivery increases to a level at which the corridor is taking a share (in proportion to market signals) of national housing need of 300,000 additional homes per annum, plus a share of the housing need that cannot be met by London and other parts of the south east of England. This equates to 30,000 additional homes per annum, equivalent to 2.2% of existing stock per annum. This is a high level of development that would need significant additions to existing delivery models. Relative to the baseline scenario, this scenario adds 44% to GVA across the corridor in the period to 2050.

The business as usual scenario will constrain the growth potential of the corridor, with little impact on the housing affordability and travel to work constraints that are evident, most notably around Oxford and Cambridge. The transformational scenario improves affordability by moderating house price growth to less than earnings growth. In both the incremental and transformational scenarios, additional investment in infrastructure is required, to link new housing with jobs. Both scenarios require existing barriers to development to be removed.

The scale of increase in housing delivery under the transformational scenario is greatest in the Oxford-Swindon sub-region, from a relatively low base, followed by the Cambridgeshire-Hertfordshire sub-region, with that increase skewed towards the Cambridge economic area. The increase in the Milton Keynes-Bedfordshire-Buckinghamshire sub-region is from a relatively high base, whilst the Northampton sub-region continues to take a share of growth.

Unlocking Growth

There is an urgent need for more growth orientated governance and leadership across the functioning economic areas within the corridor, with long term consistency of vision and policy. This should include planning of the optimum spatial relationships amongst housing, employment and transport. Most if not all of the plan making issues identified in this report would be solved by growth orientated leadership and spatial planning across functioning economic areas.

The corridor is heavily dependent on large sites to deliver new homes and workspace. These are capital intensive projects that can deliver quickly when they are located next to or are connected to fast growing centres of employment and where market signals indicate a scarcity of land. Government can intervene to accelerate development of these sites via investment in transport infrastructure and measures to improve cashflow, generating a developer return on capital that makes a scheme



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viable and deliverable. Policies that widen the range of tenure and pricing on these large sites will accelerate market absorption and build out rates, as will policies that speed up the process from planning application to start on site, encourage small and medium sized housebuilders, provide riskier project backed development finance and add to construction capacity.

Private sector development has underpinned the significant increases in housing delivery since 2012 and it will continue to play a pivotal role in further increases. Large site delivery is significantly faster in stronger markets, so strategic planning should prioritise such sites in strong markets, well connected to employment markets, as this is where there is most market capacity for the private sector to build out quickly. In such locations, Build to Rent can significantly accelerate delivery on large sites, without displacing supply for market sale.

The transformational scenario will need additional delivery models that are complementary to private sector led delivery. This will include interventions such as the Accelerated Construction Scheme, provided that they do not displace private sector delivery. Public sector land enabling and release will be most effective in accelerating housing supply if it is focused on markets with little or no private sector supply. This lends itself to a focus on new settlements, including garden towns and villages. Urban Development Corporations are potentially a very significant part of the delivery of transformational growth in the corridor.

Capacity for Transport to Unlock and Accelerate Development

The guiding principle in our analysis is that, to unlock additional economic growth in the corridor, new homes should be connected to the significant employment growth locations in the corridor, via a combination of proximity and transport infrastructure. Both the incremental and transformational scenarios rely on the development of additional sites and the accelerated delivery of both these additional sites and existing sites. Aligning transport and sites is crucial to both outcomes. As noted above, high rates of sale of new homes can be observed on large sites that have easy access to large employment markets in the corridor, with direct rail access to London being an additional factor.

Unlocking Additional Site Capacity Relative to Housing Need

We have identified some 300 large housing sites across the corridor, ranging from currently under construction, through various stages of planning, to being promoted for residential use. In total these sites have potential capacity for more than 400,000 new homes, equivalent to over 17 years of housing supply under our highest growth scenario. Large sites currently in planning, i.e., all categories excluding 'promotion', account for 10 years of need. Given the importance of larger sites to housing delivery and that many of the adopted and emerging local plans in the corridor run to 2031, 2033 or 2036, it is clear that more housing land will need to be allocated if the most ambitious growth rate is to be achieved and economic growth maximised.

The most immediate land shortfall is in the Oxford-Swindon market where there is less than two years' supply of large sites (under the highest growth scenario) under construction or with permission on large sites, albeit that there are 2.8 years' worth (almost 20,000 units) at the application stage. In all areas there is a significant longer term pipeline of large pre-planning application sites that are either allocated in Local Plans or being promoted for future allocation. Investment in transport infrastructure will be required to bring forward these sites.



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Transport Investment to Unlock Site Capacity

In a parallel workstream for NIC, Arup has assessed more than 200 transport schemes across the corridor, to include committed, planned and potential schemes that improve connectivity and relieve congestion. Each of the transport schemes has been rated by Savills and Arup for its potential impact on housing delivery. This high level analysis indicates that:

- A high proportion (47%) of the transport schemes are likely to have a high or mid-high impact on housing delivery.
- There are many transport improvements with a high or mid-high housing delivery impact around the priority areas of Oxford and Cambridge.
- There are some sub-markets that include transport schemes with a potentially high impact on housing delivery, where there is potential to look in more detail at whether additional housing land could be unlocked, should there be market capacity to do this without displacing planned delivery on the sites already identified. The most notable of these relate to East-West road and rail schemes.

Amongst the sub-market areas, the large sites at Aylesbury, SE Milton Keynes and SW Milton Keynes will benefit significantly from the increased connectivity offered by East-West Rail. In these three areas combined there are over 22,000 homes in the planning system and a further 24,000 being promoted for development. Not all are contingent on the new rail link but it could be an important factor in delivering the homes more quickly than they would otherwise come forward.

The new transport intersections created by East-West road and rail will generate new opportunities for housing and workspace growth, to include expansion of existing settlements and the creation of new towns and villages. Potential growth locations include:

- the intersection of East-West Rail with the Chiltern line, the M1, the Midlands Main Line, the A1 and the East Coast Main Line:
- the three options for the Milton Keynes to Oxford section of the East-West Expressway, which have the potential to unlock growth in a wide range of locations, that could include expansion of Buckingham and Bicester; growth at Winslow; further growth at Aylesbury plus growth around the rail link at Haddenham.

In all cases, transport connectivity and capacity into local centres of employment is crucial, whilst connectivity to London will accelerate delivery of housing and workspace, recognising that the productivity of the corridor is enhanced by its economic links to the capital.

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Introduction and Corridor Geography

The National Infrastructure Commission (NIC) has commissioned this report covering the property markets across the Cambridge, Milton Keynes, Oxford and Northampton corridor area. The objectives of the report are to:

- inform recommendations to government in order to maximise the growth potential of the corridor;
- assess current need, plans and potential further housing and commercial development linked to new infrastructure, along with different delivery models or policies that could accelerate quality housing and commercial development; and
- provide a view on the link between housing and commercial development and the case for investment in infrastructure across the area.

The study area for this report consists of four clusters of local authority districts, as shown below in Figure 1. These clusters comprise the Cambridgeshire-Hertfordshire cluster (green) and Oxford-Swindon cluster (blue), which both specialise in scientific R&D, high-tech manufacturing, and knowledge services; the MK-Beds-Bucks cluster (red), which specialises in knowledge-intensive business services with some strength in high-tech manufacturing; and the Northampton cluster (yellow), which has some strength in knowledge-intensive business services and has access to the West Midlands high-tech manufacturing cluster.

Legend Market msa. Harborough 133 Corridor sub-regions Cambs-Herts Northampton Oxford-Swindon MK-Beds-Bucks A4189 Warwisk Stratford-We upon-Avon the-Wold Cheltenham Aylesbury Vale West Oxfordshire Hempstead Chelmsford Oxford Cirencester High South Oxfordshire Vale of White Horse Beaconsfield Maidenhead Chippenham

Figure 1 - Local Authority Districts covered in this report

Source: Ordnance Survey



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The data analysed within this report is typically collected at a local authority district level. Where appropriate, we have carried out analysis at a finer level of geographic detail (middle super output areas or lower super output areas) to demonstrate where there are variations in attributes across districts. Data on residential rental values is only available at a postcode district level; here we have aggregated postcode districts to approximate the relevant local authority districts. This aggregation is demonstrated below in Figure 2.

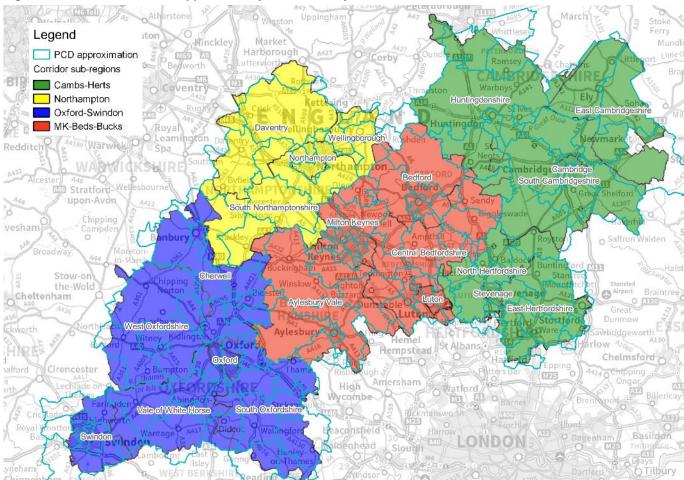


Figure 2 - Postcode districts mapped to study local authority districts

Source: Ordnance Survey

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Residential Property Markets

2.1. Housing Market Areas

Official planning guidance suggests starting with a national, top-down approach when defining functional market areas. The Centre for Urban and Regional Development Studies (CURDS) at Newcastle University produced rigorously-defined housing market area (HMA) boundaries for England based on commuting, migration and house price patterns, as part of a major project for the National Housing and Planning Advisory Unit (NHPAU)².

The analysis produced two 'tiers' of HMAs: strategic and local, with the boundaries defined at either ward ('Gold') or local authority ('Silver') level. The gold local HMAs are therefore the most detailed available, and the relevant ones for the corridor are highlighted below. The gold analysis shows how locally focused some of the markets are, especially in the central section of the corridor, with Bedford, Milton Keynes and Luton all separate. Cambridge has the biggest reach, with even its local HMA stretching out into Suffolk and Hertfordshire. The local HMAs in many areas reflect the existing transport links, so it is possible that these boundaries could shift as new transport is introduced and journey times are shortened.

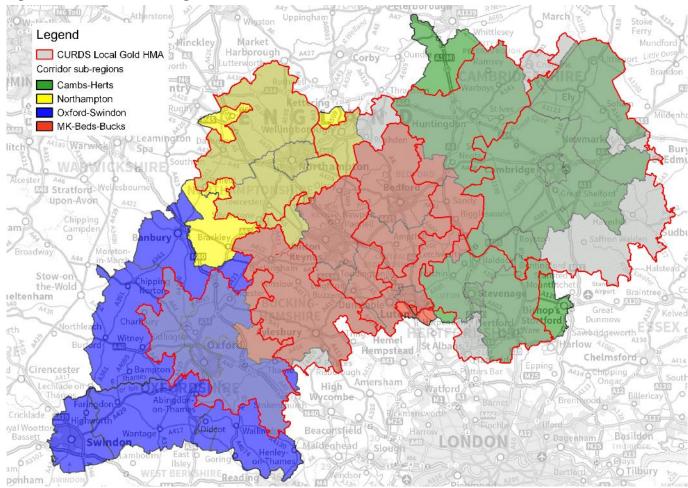


Figure 3 - CURDS local housing market areas across the corridor

Source: CURDS, Ordnance Survey

² http://www.ncl.ac.uk/curds/research/defining/#d.en.404919



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Planning policy and most housing data relate to local authority boundaries, so the simpler silver strategic HMAs are better aligned with the corridor's definition. The four main silver HMAs covering the corridor are shown below. The local authorities included in this definition are broadly similar to the chosen study area for the corridor, with the following exceptions:

- IN corridor definition but not in CURDS silver: Swindon, Stevenage, East Hertfordshire, North Hertfordshire;
- OUT of corridor definition but in CURDS silver: Uttlesford, Corby, Kettering, East Northamptonshire.

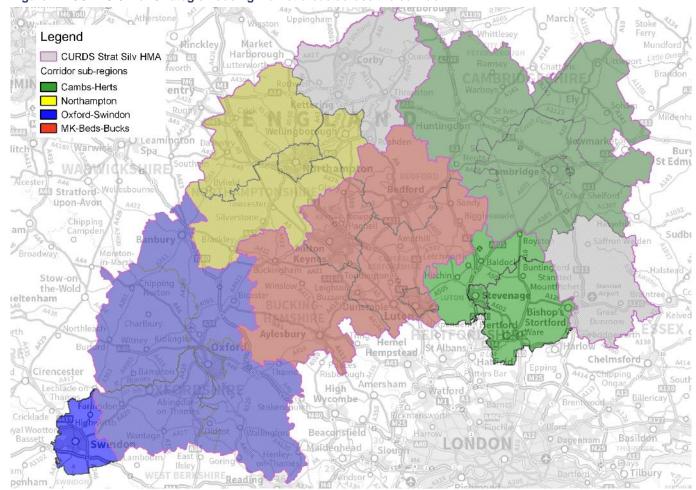


Figure 4 - CURDS Silver Strategic housing market areas across the corridor

Source: CURDS, Ordnance Survey

In summary, analysis of top-down HMAs suggests that the study area and sub-regions chosen are a valid reflection of functional local markets. The CURDS analysis suggests that Swindon and Hertfordshire could be excluded at the expense of Corby, Kettering and Uttlesford, but there are particular specialist industrial sectors in Stevenage and Swindon that mean they warrant inclusion in the corridor (see economic workstream for further details).

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2.2. Patterns of Internal Migration

2.2.1. Migration into the corridor

Figure 5 shows the proportion of each local authority's residents moving to the corridor over the 12 months up to June 2015. The darker red patches illustrate the local authorities that are the source of the most people moving into districts in the corridor. The highest levels exclusively come from within the corridor, showing some evidence that it is a functional market area. Much of the remaining migration into the corridor comes from other districts just beyond the boundary, such as East Northamptonshire, Forest Heath, and Uttlesford.

Proportion of population to study area from borough % of 2015 population Up to 0.5% 05 - 1.0% 15 - 2.0% 2 0 - 3.0% Over 3.0% Over 3.0%

Figure 5 – Migration in to the corridor (in 12 months to June 2015)

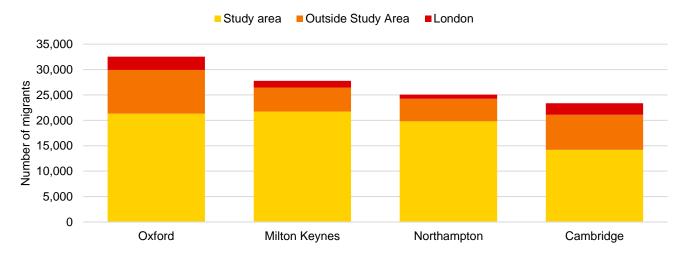
Source: ONS internal migration data, Ordnance Survey

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Oxford received the greatest number of UK migrants of all the four major cities/ towns that define the corridor, within the year to March 2011. It also received the highest total number of migrants from London. Both Oxford and Cambridge show a proportionally stronger migration link with London than Milton Keynes or Northampton. Similarly, Oxford and Cambridge attract more migration from beyond the corridor. But overall, a clear majority of migration into all of the corridor's major urban centres comes from other areas in the corridor, ranging from 61% in Cambridge to 79% in Northampton.

Figure 6 - UK migration into the corridor's four major cities/ towns (in 12 months up to Census)



Source: 2011 Census

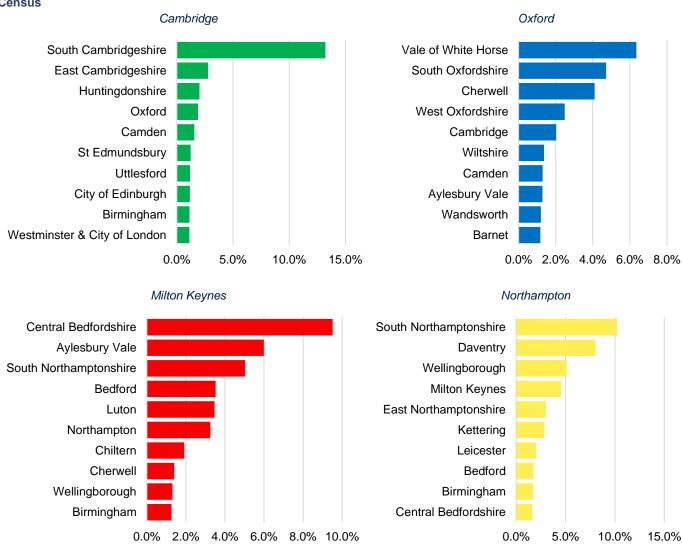
Breaking the data down, as shown in Figure 7, it is notable that after the four other Oxfordshire districts, the next most common source of migration into Oxford is from Cambridge, making up 2.0% of all in-migration. Similarly, Oxford comes fourth in the reverse list, only behind the nearby South and East Cambridgeshire and Huntingdonshire districts and supplying 1.9% of Cambridge's in-migrants. Camden comes fifth on the Cambridge list, potentially reflecting both the rail link into King's Cross and the areas' similar expertise in biomedical science.



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In Milton Keynes and Northampton the top positions are again taken by adjacent and nearby districts, but migration links from Oxford or Cambridge are not seen. The constituents of both top 10s in this central section of the corridor indicate that the north-south rail and road links play an important part in migration choices.

Figure 7 – Top 10 migration sources into Cambridge, Oxford, Milton Keynes and Northampton in 12 months up to the Census



Source: 2011 Census

Over 40% of the movers into Oxford (47%) and Cambridge (43%) from the UK were students, compared with much lower proportions in Milton Keynes (5%) and Northampton (16%). This shows the influence of the universities and it is important to consider the different housing needs of students separately in any policies or strategies. Assessing net student migration is difficult, as a high proportion of those leaving university and other higher education will do so as employees and, consequently, will appear in the out-migration data as employees.

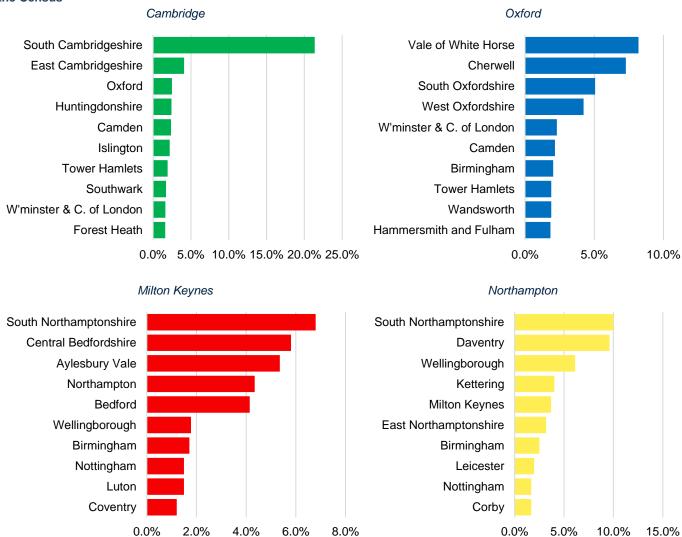




2.2.2. Migration out of the corridor

Migration out of the area is less important to this project, given that the focus is on the housing needed in the corridor, but looking at the urban areas highlights some interesting links. Similarly to Figure 7, Figure 8 shows the breakdown of the most common out migration destinations for each of the four towns/cities. Again, the Cambridge to Oxford link shows up, but with the notable presence of many London boroughs in both their top 10s: five for Cambridge and five for Oxford. This may be representing the out migration of university graduates to employment in London.

Figure 8 – Top 10 migration destinations from Cambridge, Oxford, Milton Keynes and Northampton in 12 months up to the Census



Source: 2011 Census

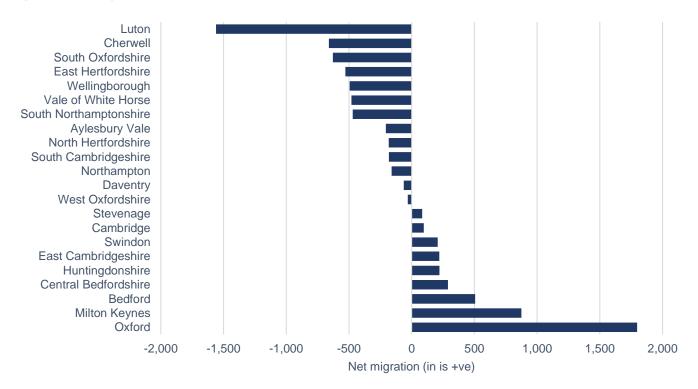




2.2.3. Net migration

The net migration figures for the year to March 2011 do not show a clear pattern

Figure 9 – Net migration for the LAs in the corridor (in 12 months up to Census)



Source: 2011 Census

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2.3. House Prices and Affordability

2.3.1. Average value and transaction volume trends

Average house prices in Great Britain have grown by 7.3% per annum on average between 1996 and 2016, substantially in excess of general inflation (Figure 10). On average, house prices within the corridor grew more slowly than the national average when looking at either a five or ten year period up to the Global Financial Crisis in 2008. Particularly over the later period of this cycle, economic growth in the north of the country was stronger and the already higher absolute values for property in the south limited scope for further growth. In the recovery post-crisis, values in the corridor have grown almost twice as fast as the GB average, currently (June 2016) sitting 21.9% above the previous peak (compared with 11.7% for GB).

Within the corridor, the Cambs-Herts sub-region has seen prices increase most since the downturn, with values now 27.3% higher than their pre-crisis peak. Oxford-Swindon prices increased in line with Cambs-Herts until 2013, when house price growth in the sub-region started to slow; values are currently 22.2% above their pre-crisis peak. Prices in the MK-Beds-Bucks cluster performed in line with the national average until late 2014 and have since leapt ahead to Oxford-Swindon levels: prices there are 21.0% higher than their pre-crisis peak. The Northampton sub-region continues to perform in line with the national average, with prices now 11.9% higher than the pre-crisis peak.

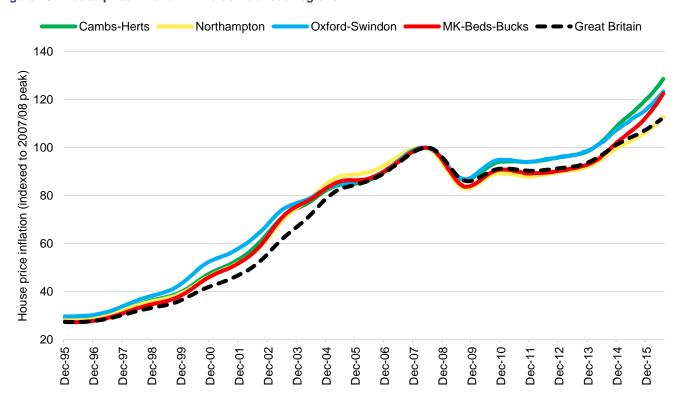


Figure 10 - House price inflation in the corridor sub-regions

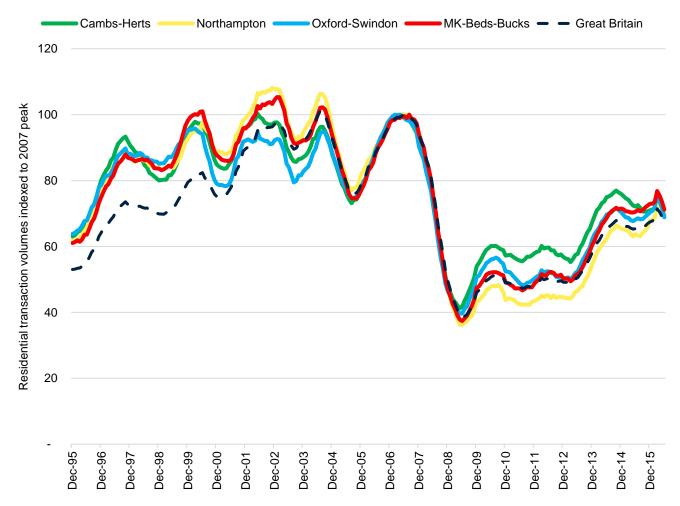
Source: Savills using HM Land Registry and Registers for Scotland



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Transaction volumes fell nationally by approximately 50% following the Global Financial Crisis due a tightening of mortgage finance availability and negative market sentiment. The depth of fall was similar for all the corridor sub-regions. Volumes have since recovered somewhat and have stabilised at around 25% below their pre-crisis levels. The lower volumes today reflect tighter mortgage requirements, such as higher deposits and more stringent affordability checks. At present the transaction levels for all four sub-regions have converged to sit at a similar point relative to 2007, but over the period following the downturn Cambs-Herts initially recovered most strongly but has fallen back into line over the most recent 18 months.

Figure 11 - Average transaction volumes in Great Britain and the corridor sub-regions



Source: HM Land Registry



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House prices vary widely across the corridor. Average values³ in Wellingborough are £173,000, whereas in Cambridge and Oxford values are around 2.5 times higher at £443,000 and £429,000, respectively. Compared to the national (GB) average house price of £218,000, values are 97% higher in Oxford and 103% higher in Cambridge. Excluding Oxford and Cambridge, the average house price in the corridor is £291,000, which is approximately 33% higher than the national average.

Oxford and Cambridge are also unusual in that they are urban areas with average values higher than their surroundings, unlike the other urban centres in the corridor which have lower values than the surrounding rural locations. This reflects a particularly acute demand to access these locations and a consequential shortage of supply, which could be addressed either through additional housing development or improved transport accessibility.

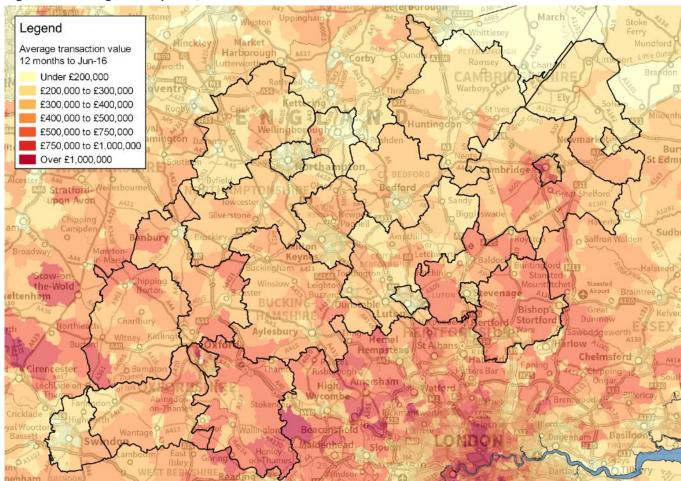


Figure 12 - Average house prices, 12 months to June 2016

Source: Land Registry, Ordnance Survey

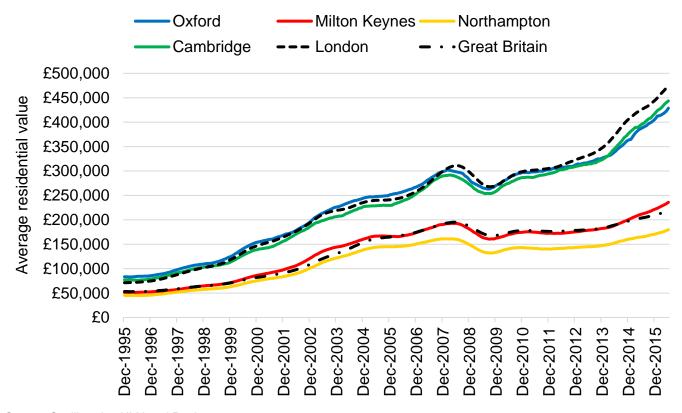
³ Average values calculated from HM Land Registry using transactions during the 12 months to June 2016



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The spread of price growth within the corridor is as diverse as the variation in average values. The chart below shows how average prices have changed within the four cities/ towns that define the corridor: Oxford, Cambridge, Milton Keynes and Northampton. This unbalanced growth is a function of many factors, including local differences in demand for housing and the effectiveness with which local authorities have been able to address housing need with additional supply.

Figure 13 - House price inflation in four cities within the corridor



Source: Savills using HM Land Registry



Below 40%

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The variation in house price growth since the previous peak is shown in Figure 14 below. There is a clear cut off towards the north and west of the corridor, with values in Swindon, Huntingdonshire, and the Northampton area only slightly higher than they were in 2007/08 in nominal terms.

lalsall Hinckley Market Bury t Edmunds Stratford-W upon-Avon House price versus 07/08 peak, July 2016 Chelms Above 40% 30% to 40% 20% to 30% 10% to 20% 0% to 10% -10% to 0% -20% to -10% -30% to -20% -40% to -30%

Figure 14 - Current house prices compared with 2007/08 peak

Source: Savills Bespoke Indices using Land Registry data, OS OpenData





2.3.2. Affordability ratios

Housing affordability is stretched across much of the corridor. The two urban areas of Oxford and Cambridge stand out as having especially high ratios of house prices to earnings, and 17 of the 22 authorities in the corridor have higher house price to earnings ratios than the national average, 7.6.

Figure 15 below shows how affordability varies across the corridor: Luton, Northampton, Milton Keynes, Stevenage and Swindon have relatively affordable housing markets.

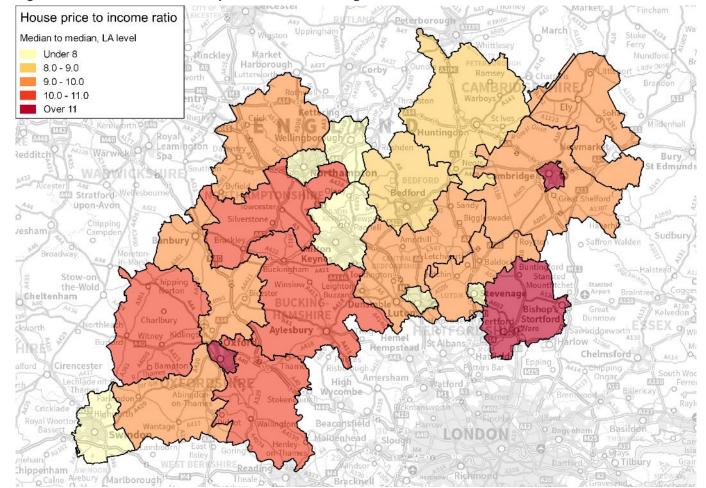


Figure 15 - Ratios of median house prices to median earnings across the corridor

Source: DCLG, OS OpenData

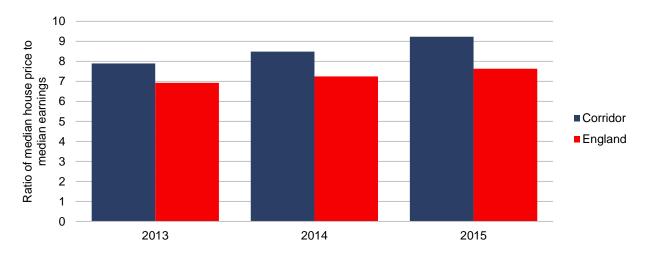
The simple average of the district house price to earnings ratios across the corridor was 9.2 in 2015, having grown from 8.5 in 2014 and 7.9 in 2013, as shown in Figure 16. Below that, Figure 17 shows the change in affordability ratios for each of the major urban areas within the corridor⁴. Having remained steady through the mid- to late-2000s, affordability ratios have increased substantially since 2012, demonstrating the deterioration in affordability.

⁴ The source of house price data used changed in 2013 to incorporate the new ONS House Price Statistics Small Area datasets, leading to a slight discontinuity, as shown in Figure 17.



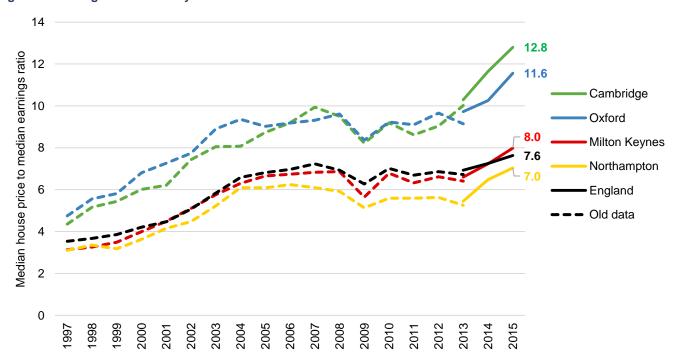


Figure 16 - Average ratio of median house prices to median earnings over time



Source: DCLG

Figure 17 - Change in affordability ratios in the corridor



Source: DCLG (series discontinuity in 2013)

Similar data for London (as a whole) is not available as DCLG only publish the data at local authority / borough level. We have estimated a London average figure by weighting the borough level figure by the volume of private housing stock, which for 2015 is 14.5.



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Note that the 'official' affordability ratios shown in Figure 17 are lower than those arising from other studies, e.g. the widely quoted Centre for Cities *Cities Outlook 2016*⁵, where the 2015 figures for Oxford, Cambridge, Milton Keynes and Northampton were reported as 16.2, 15.9, 8.9 and 7.4 respectively. This is a result of Centre for Cities using mean house prices rather than medians, which in the higher value markets skews the ratios upwards. The Centre for Cities figure for London is 16.2.

2.4. The Private Rented Sector

2.4.1. Tenure trends

Following a long period of decline through the 20th Century, the Private Rented Sector (PRS) in England is now the fastest growing tenure. The chart below shows how the split of tenures in England varies over time. Between 1915 and 1980 the proportion of privately rented households fell as more and more households either moved into council properties or bought their own home. The proportion of socially rented homes began to fall following the introduction of Right to Buy in the 1980s, bringing more households into owner occupation. However, the rise in home ownership began to slow in the 1990s and 2000s as Buy to Let investment increased, with home ownership falling during the 2000s and 2010s due to lower availability of mortgage finance following the Global Financial Crisis.

We forecast these more recent trends to continue. We expect the proportion of privately rented households to grow further in the coming years due to continued constraints on affordability and limited supply of new housing.

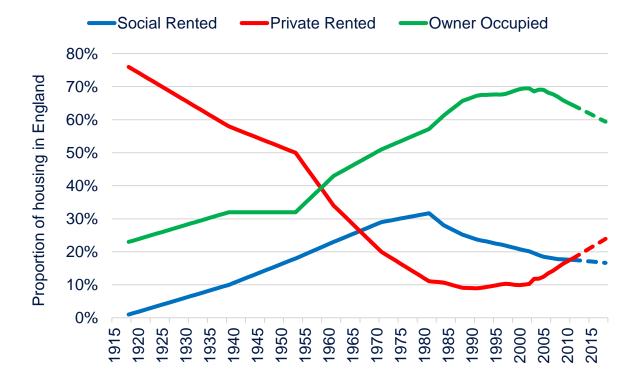


Figure 18 - Long term tenure trends in England

Source: ONS

⁵ http://www.centreforcities.org/wp-content/uploads/2016/01/Cities-Outlook-2016.pdf



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There were 205,000 privately rented households in the corridor in 2011, making up 15.8% of households. This is slightly lower than the England & Wales average of 16.8%, which reflects the less urban nature of the area relative to the rest of the country.

The map below shows how the PRS is concentrated across the corridor. There are particularly strong concentrations in the high value cities of Oxford (30%) and Cambridge (28%), demonstrating how affordability constraints in these locations mean there is less opportunity for households to buy, in addition to the more transient nature of students and academics. There are also smaller concentrations of PRS households in the other urban areas: 19% in Northampton and 18% in Milton Keynes.

The large areas of high PRS concentration in rural South Oxfordshire and to the northeast of East Cambridgeshire are due to rented service personnel accommodation around RAF Benson and RAF Mildenhall, respectively.

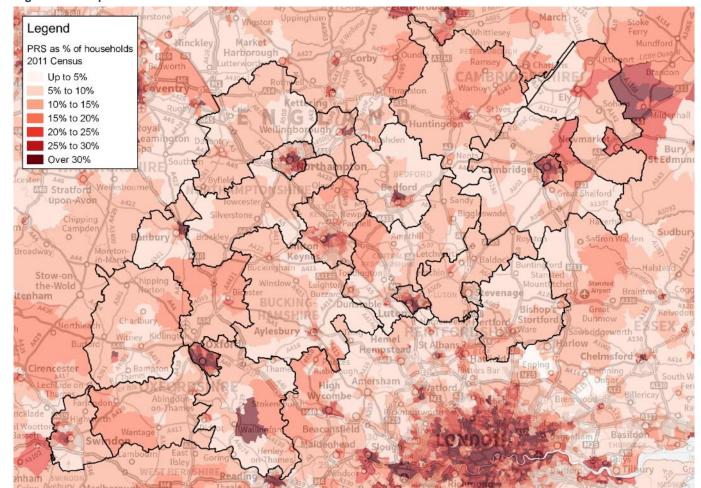


Figure 19 - Proportion of households in the Private Rented Sector

Source: 2011 Census, OS OpenData

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2.4.2. Rental values

The distribution of rental values follows a broadly similar trend to that of residential capital values: rents are particularly high in and around Oxford and Cambridge, with lower rental values across much of the rest of the corridor. In Milton Keynes, rental values are high in the very centre of the urban area but drop off much more quickly towards the outskirts of the town and the wider district.

Legend

March

Median 2 bed asking rent
O2 2016, Epom
Under £700
E700 to £800
E800 to £900
E800 to £900
E800 to £900
E800 to £900
E900 to £1,000
Over £1,000
Over £1,000

Over £1,000

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Figure 20 - Median asking rent for two bedroom property per calendar month, Q2 2016

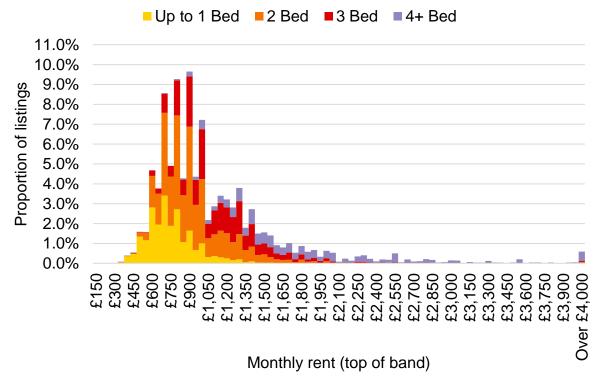
Source: Rightmove, Ordnance Survey

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Over 27,000 properties were listed for rent on Rightmove in the corridor during the second quarter of 2016. Around 11,000 of these, 39%, had two bedrooms. The full distribution of rental listings by asking rent across the corridor is shown in the chart below. The greatest depth of market is between £650 and £1,000 per month, however, there is a substantial tail of larger properties being offered at much higher rents. 859 properties were offered to let for more than £2,500 per calendar month.

Figure 21 - Depth of the rental market in the corridor, Q2 2016



Source: Savills using Rightmove

2.4.3. Rental affordability

The chart below demonstrates how rental affordability varies across the major cities/ towns of the corridor for different household types. It shows the ratio of median rents to median earnings for the following three scenarios:

- Median 1 bed property and one person earning the median full time salary
- Median 2 bed property and two people each earning the median full time salary
- Median 3 bed property and two people, one earning the median full time and one the median part time salary

These cover typical household types such as a single person, a professional couple, and a young family.

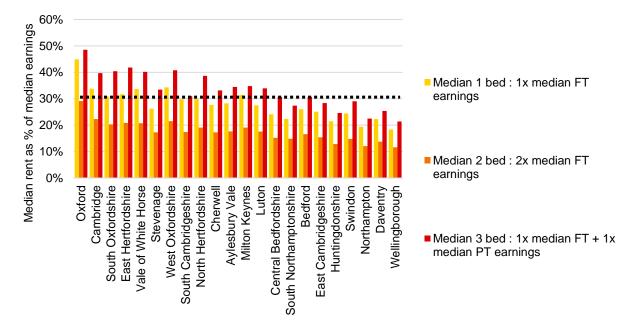




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We consider 30% of earnings to be the most a typical household can afford to spend on rent without having a negative impact on other quality of life factors, so in three of the four major urban areas a typical family house (i.e. a three bed) is not affordable on one full time plus one part time median salary according to this measure.

Figure 22 - Rental affordability for various typical household types (all areas are whole district level)



Source: Savills using Rightmove and ASHE

Across the whole corridor, rents are most affordable in the Northampton cluster of districts, with Wellingborough and Northampton the most affordable districts in the corridor on this basis. Oxford stands out as having especially stretched affordability, with an affordability ratio of 29% even under the two earner scenario. It should be noted that two median full time incomes would actually put a household well above the upper quartile for household income.

Milton Keynes may look much more affordable on these measures than Oxford and Cambridge, but as a more mixed urbanrural district the data includes some locations outside the central area where the rental market is weaker (refer back to Figure 20). Reliable income data at smaller geographies is not available, but given rents are up to 40% higher in the central MK9 postcode than the district average, it is likely that specific local affordability issues are present.

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2.4.4. Rental demographics

It is important to note that the residents of the PRS are not a uniform group, comprising young professional sharers and couples, families with children, migrant workers, pensioners and many others. The map below shows that the dominant household type amongst PRS residents varies strongly by location. In the university cities of Oxford and Cambridge one person and 'multi-family' (including professional sharers and students) households are the most common. In the villages around both, couples both with and without children dominate.

In the other major urban areas (Swindon, Milton Keynes, Luton, Northampton and Bedford) there is a common pattern of a central area dominated by one person households, and a surrounding belt with families.

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Figure 23 - Most Common Household Type Living in the Private Rented Sector

Source: Savills using 2011 Census

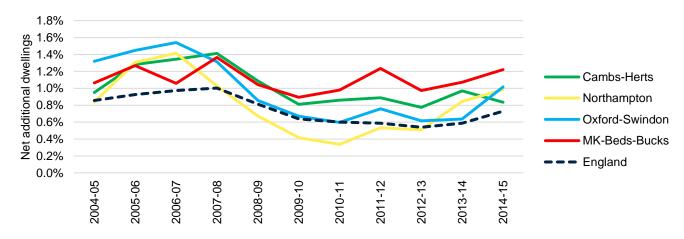
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2.5. Housing Delivery

Housing delivery across the corridor has been consistently above the national average level over the past decade, boosted by large contributions from high growth areas such as Swindon, Milton Keynes and Cambridgeshire. At a sub-regional level the chart below shows how all four areas are delivering high levels of new homes relative to the country as a whole. However, given the corridor is a much stronger housing market in general, and it contains the particular hotspots of Oxford and Cambridge, there could be capacity to do even more.

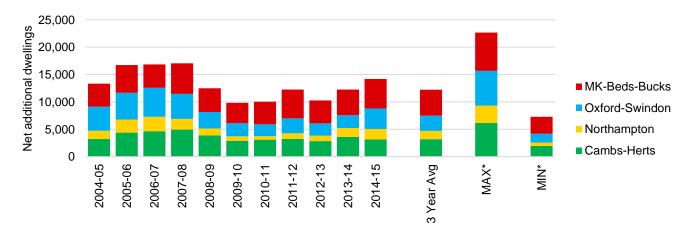
Figure 24 – Housing delivery by sub-region since 2004/05, as a % of stock



Source: DCLG

At individual district level Milton Keynes has delivered the most new homes relative to stock, 1.6% over the past decade. In a single year Swindon delivered 2.8% of stock in 2006-07. In terms of absolute numbers the highest individual year of delivery was 2007-08 with 17,050 new dwellings across the corridor. But combining individual districts' highest delivery years gives a total of 22,670, around 1.7% of stock. Achieving anything close to these figures over a sustained period, across the whole corridor, would require many barriers to delivery to be removed.

Figure 25 - Housing delivery by sub-region since 2004/05



Source: DCLG. *Note: 'Max' and 'Min' refer to individual years of maximum and minimum delivery at district level, aggregated up to sub-regions. See footnote 1, page 3 regarding recently published delivery data.

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2.6. Influence of London

2.6.1. Commuting

A large proportion of the working population in the southern part of the corridor commute to work in London: for instance, over a third of workers living in Hertford (East Hertfordshire) work in the capital. Generally, urban locations have relatively few London commuters, with these workers preferring to live in the surrounding countryside and drive to the local rail station, explaining the relatively low levels of commuting in Stevenage and Luton.

Legend Mundfo Proportion of workers that commute to London Up to 5% 5% to 10% 10% to 15% 15% to 20% 20% to 25% 25% to 30% Over 30% Stratford-Welle üpon-Avon Chipping Stow-or the-Wold enham

Figure 26 – Proportion of workers that commute to London

Source: 2011 Census, Ordnance Survey

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2.6.2. Housing market correlation

We have measured the correlation in house price growth between each of the local authorities in the corridor and the former Government Office Regions. Oxford and Cambridge stand out as being more strongly correlated with London than with any other region. Most districts are correlated most strongly with the South East of England; Swindon and the districts towards the north of the corridor are more strongly correlated with the South West.

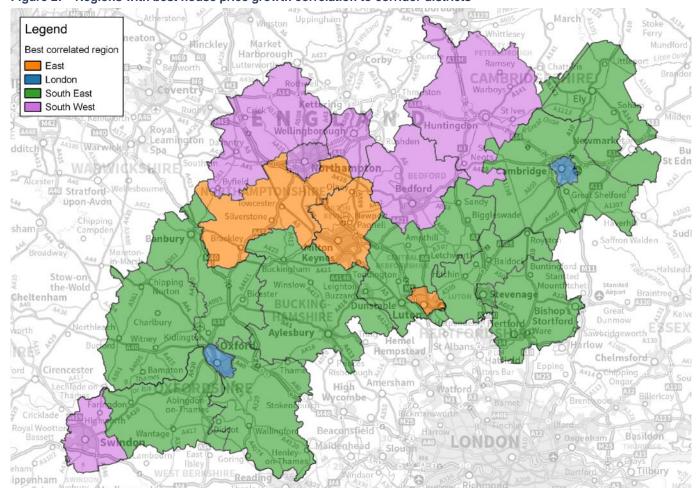


Figure 27 - Regions with best house price growth correlation to corridor districts

Source: Savills using HM Land Registry, Ordnance Survey

The house price correlation between Oxford, Cambridge and London demonstrates that although a low proportion of workers in these cities commute to London every day, the markets are strongly connected through other factors. The displacement of London housing demand to these two cities is partly what has driven the particularly high affordability constraints there. This is supported by the migration analysis discussed above in Section 2.2. In addition, there is connectivity between knowledge-intensive business clusters in the three economies.



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Housing development in the outskirts of London is limited by planning constraints, including Green Belt and environmental constraints such as Areas of Outstanding Natural Beauty (AONBs). As a result, development and demand for housing has been pushed further out, contributing to the high levels of London demand overspill in Oxford and Cambridge. Oxford and Cambridge also have their own Green Belts constraining potential growth locations.

Legend
AONBS, SSSIs, SPAs
Green Belt
AONBS, SSSIs, SPAs
AONBS, SSSIs,

Figure 28 - Environmental and planning constraints across the corridor

Source: ONS, Ordnance Survey

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Planning for Housing Need

3.1. Summary

Existing planning targets are not meeting housing need within the corridor. Thirteen authorities within the corridor are yet to adopt NPPF compliant plans. Consequently, target setting is not consistently based on objectively assessed need (OAN), as determined by Strategic Housing Market Assessments (SHMAs). In planning terms this means that the current Local Plan targets across the corridor add up to some 4,200 fewer homes than the SHMAs suggest are actually needed.

In addition, what is actually being delivered is not reaching these 'below need' targets. Based on average delivery over the three years 2012-15, annual delivery is more than 3,500 homes short of the targets and almost 8,000 units lower than established need, albeit that delivery has increased during the two years to March 2016⁶.

There is also reason to believe that housing need as established by SHMAs is underestimated. Many authorities adopt relatively modest economic and household projection scenarios and make inconsistent adjustments to inputs such as migration assumptions. Household projections form a fundamental part of the process for assessing need but in some locations can be a misleading foundation. They are necessarily based on past trends, so modest levels of migration may not be a reflection of low levels of demand but rather of past low housing supply, creating a feedback loop that amplifies the problem. An uplift must therefore be added to better reflect the true scale of need, a concept that is recommended in planning guidance but where there is a wide range of what is accepted as 'appropriate'.

The recommendations of the Local Plans Expert Group⁷ (LPEG) include a method to objectively apply uplifts for high house prices and rents and constrained household formation, which would take away much of the discretion available to local authorities on some of the key parts of the calculation. It remains to be seen whether or not the Government adopts the LPEG recommendations.

Across the corridor a number of authorities have undertaken a more collective approach to assessing housing need, focussed on local migration and commuting patterns. These have referenced Local Economic Plans (LEPs) where they exist. Oxford has an ambitious economic plan and has based its housing need on the scenario that sees the most new jobs delivered to the area, which has increased its assessed level of housing need considerably. Other authorities across the corridor have acknowledged their more modest growth plans as the rationale for selecting scenarios that generate a lower housing need.

⁶ Since this report was completed, new DCLG data show that housing delivery across the corridor was 16,400 net additional dwellings in 2015/16, confirming that 15,000 homes is a reasonable indicator of recent delivery across the corridor over the last two years.

⁷ http://lpeg.org/



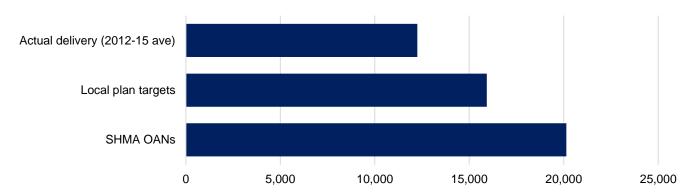
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In order to address the deficit in delivery the planning system needs to work differently within the corridor:

- pushing through Local Plans to ensure that all are NPPF compliant and working with need in mind;
- setting realistic Objectively Assessed Housing Need based on factors beyond DCLG projections (which have significant limitations) and consistent with economic growth plans and projections, including connectivity with other markets (including London) that are unable to meet their own need; and
- ensuring that the Duty to Cooperate means that need is met across authority boundaries.

Table 1 - Difference between housing need, targets, and delivery in the corridor

Objectively assessed need (OAN) in corridor	tardets across	OAN and local plan	Average annual delivery (2012-15)	
20,135	15,926	4,209	12,250	7,885



Source: DCLG, Local plans, SHMAs

3.2. Planning Context

The planning context within the corridor is set within the Government's pro-housebuilding agenda. The Government ambition is to deliver one million homes in England over the course of the current parliament, equivalent to 200,000 a year to 2020. It should be noted that this is lower than most national need estimates which stretch to over 300,000 pa⁸, as discussed further in section 5.3 of this report. The rationale for the higher estimates of need includes offsetting years of undersupply and improving housing affordability, factors that are not captured in household projections.

Without functional strategic planning to consider cross boundary activity and investment, local targets are unlikely to add up to this overall number. In particular, where local politics and land or environmental constraints combine to produce a low target compared with need, the excess demand is often not picked up in adjacent or linked areas.

The National Planning Policy Framework (NPPF), introduced in 2012, and its associated National Planning Practice Guidance, call for local plans to be based on Objectively Assessed Need (OAN), economic growth forecasts, and the needs of surrounding local authorities. This has created an obligation for local authorities to undertake Strategic Housing Market Assessments

⁸ House of Lords (2016). Building more homes. Select Committee on Economic Affairs. HL Paper 20, July 2016. For examples of academic housing need estimates see the *Barker Review*, 2004 and the *Barker Review a decade on*, 2014; work by Geoff Meen for the NHPAU in 2008; work by Neil McDonald and Christine Whitehead for the TCPA in 2015.



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(SHMAs) to establish their own need with reference to the wider housing market area. Creating a post-NPPF plan is dependent on having completed a SHMA. A number of authorities within the corridor have undertaken collective SHMAs and some have carried that into collective local plans. Figure 29 provides a summary of the various planning stages within the corridor. Most authorities are working on, or have adopted, a plan for the period 2011-31.

Planning stage in relation to NPPF Adoption leicester Swaffhan Initial preparation Drafting Examination Proposed Submission Authorities included in joint plan but outside the study area Huntingdonshire FEET Redditch Northampto Bedford South Northamptonshire North Hertfordshire West Oxfordshire

Figure 29 – Local authorities by planning stage

Source: Local Plans, Ordnance Survey

Many local authorities have yet to adopt a post-NPPF plan and consequently their targets are not reflective of the need established in their SHMA. 13 of the 21 local authorities within the corridor have adopted post NPPF plans, and with eight still in their initial planning or drafting stage it seems unlikely that all authorities will have produced a plan ahead of the 'early 2017' deadline, facing the possibility of central government intervention where insufficient progress has been made.

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3.3. SHMA Geographies in the Corridor

Within the corridor there are a number of self-identified housing market areas. These areas have undertaken collective need assessments which have often been translated into a joint core strategy plan forming the foundation of local planning targets. This collective measurement of need is then fed down into local plans and independent plans, working under the Duty to Cooperate. Targets can therefore be set with reference to local commuting patterns, migration within the sub-regional area, and the total employment forecast within the area as a whole.

However, despite this co-operation in needs assessment and target setting, total targets across the corridor, and even within specific sub-regional areas, do not fully meet housing need.

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Figure 30 - Sub-regional collective SHMAs

Source: Local SHMAs, Ordnance Survey





3.4. The Difficulty of Assessing Need

3.4.1. Strategic Housing Market Assessments (SHMAs) and household projections

All the post NPPF plans have been informed, in part, by a SHMA. The assessment draws on household projections, economic forecasts, and must look at an individual authority's needs within the wider housing market context. National Planning Practice Guidance (NPPG) states that DCLG household projections should be used as a starting point in assessing housing need.

DCLG household projections are generated from existing migration trends. This creates imperfect projections for a number of reasons, principally because recent trends are affected by more than population growth. For example in some areas migration has been supressed by low housing supply. This low level of migration is then reflected in the CLG forecasts. In some instances this means areas with high levels of demand and growing need see more modest housing growth forecasts than they should.

The latest 2014-based projections give an average annual increase of 210,000 households from 2014 to 2039. However, given the limitation described above a forecast of housing need (rather than a simple projection) requires consideration of more factors and is necessarily significantly higher. Academics and economists who have considered the issue have produced a wide range of such forecasts, one of the best known being Kate Barker's assessment that 260,000 private housebuilding starts are required each year to improve the housing market. Christine Whitehead and Neil McDonald, working for the TCPA, suggested that 312,000 new homes were needed each year in order to deal with the backlog created by years of undersupply (see footnote 8, page 35).

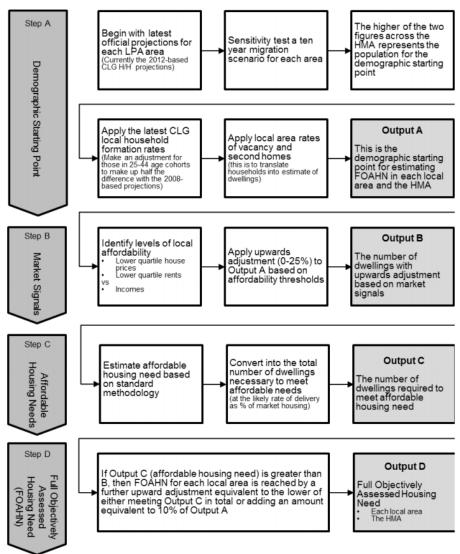




3.4.2. Local Plans Expert Group

The Local Plans Expert Group (LPEG) produced a series of recommendations relating to the Local Plan process, including on the assessment of housing need. The aim of their proposed method is to simplify and standardise the way need is calculated across different local planning authorities, along with boosting need figures in the strongest, most affordability-constrained markets. Adjustments to the household projections on the basis of demographic, market strength, and affordable housing evidence are part of the method. Figure 31 below details the method proposed by LPEG.

Figure 31 - Proposed Process for Calculating Objectively Assessed Housing Need



Source: Local Plan Expert Group, Appendix 69

⁹ http://lpeg.org/wp-content/uploads/2016/02/Appendices-local-plans-report-to-government.pdf



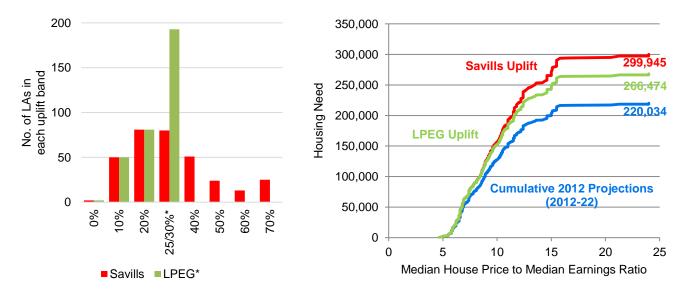
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Without a detailed analysis of individual Local Plan evidence from across the country, it is not possible to estimate the total of all LPEG adjustments required due to demographic and affordable housing information. The market signals uplifts can however be estimated quite simply, arranging all local authorities into bands according to house price and rental affordability ratios. Savills analysis¹⁰ of the LPEG uplifts indicates that total housing need using their method (adjusting for market signals only) would increase the raw household projections by 22% to 266,000 homes per year.

This falls significantly short of the kind of totals that academics have suggested is necessary to meet housing need and keep price growth at a sensible level. This can in part be explained by the fact that suggested uplift bands put over half of all local authorities in the highest (+25%) category. Consequently such diverse locations as Boston in Lincolnshire and Kensington & Chelsea are in this same top band category, which is clearly not an optimum approach. This suggests the need for higher bands of uplift to fully reflect the wider range of market signals that exists beyond the range considered by LPEG.

To get to 300,000 new homes a year requires a 36% uplift over the household projections nationally. We have set out a scenario where this can be achieved by increasing the 25% band to 30% and adding more bands with higher uplifts for the most affordability-constrained markets. Adding extra bands ensures a more even distribution of local authorities across the bands (see left chart below), with the most unaffordable markets receiving a larger boost to their housing need figures.

Figure 32 - Savills and LPEG adjustment methods compared (local authorities per band and total need)



Source: Local Plan Expert Group, DCLG, Savills

http://pdf.euro.savills.co.uk/uk/residential---other/spotlight-planning-summer-2016.pdf

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3.5. Housing Need and Delivery in the Corridor

The scale of delivery required in each authority in order to meet housing need varies widely within the corridor. One measure for assessing the relative challenge faced by authorities is to look at the amount of delivery required each year as a percentage of the existing housing stock. According to current SHMAs, Oxford has the highest proportional requirement to meet its housing need (over 2%), whereas nearby Aylesbury Vale can meet its housing need by adding less than 1% to its existing stock.

Whilst the scale of Objectively Assessed Need (OAN) is certainly higher than existing targets, and if met would go a long way to addressing the shortfall of housing in the area, establishing need is an imperfect science. SHMAs are based on a combination of household projections, economic forecasts and market signals. However, in a number of authorities, (Milton Keynes, Bedford, and Cambridge), relatively low levels of projected economic growth have been used to inform need, despite the economic importance of these centres within the region. There is a case to be made for higher levels of growth to be used to inform SHMA targets.

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Figure 33 - SHMA OAN as % of existing stock

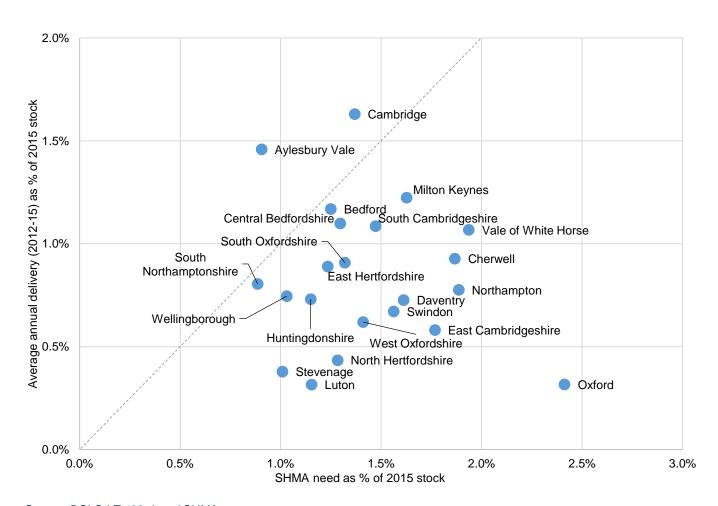
Source: Local SHMAs, DCLG LT-125, Ordnance Survey

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Figure 34 shows local SHMA targets as a % of stock against average housing delivery over the past three years (2012-15), also shown as a % of stock. Authorities above the line in the chart below have seen delivery exceed their current assessed need over the last three years, namely Aylesbury Vale and Cambridge. South Northamptonshire and Bedford have come close to meeting their housing need but the majority of authorities have seen delivery substantially below their established need. Oxford has proportionally the highest measure in the corridor of Objectively Assessed Need via its SHMA but has struggled over a number of years to meet that level of need. However, Oxford's existing housing target was set in a pre-NPPF plan which does not therefore draw on the 2014 Oxfordshire SHMA.

Figure 34 - SHMA OAN vs average delivery (2012-15)



Source: DCLG LT-122, Local SHMAs

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Local plans across the study currently include housing targets for some 15,900 additional homes each year. This is 4,200 short of current Objectively Assessed Need as identified by SHMAs.

Oakhar Local plan target as Deicester % of 2015 stock Over 2.0% 1.5% - 2.0% 1.0% - 1.5% BIR 0.5% - 1.0% 0.2% -0.5% Stratford West Oxfordshire

Figure 35 – Local plan housing targets as % of 2015 dwelling stock

Source: Local Plans, DCLG LT-125, OS OpenData

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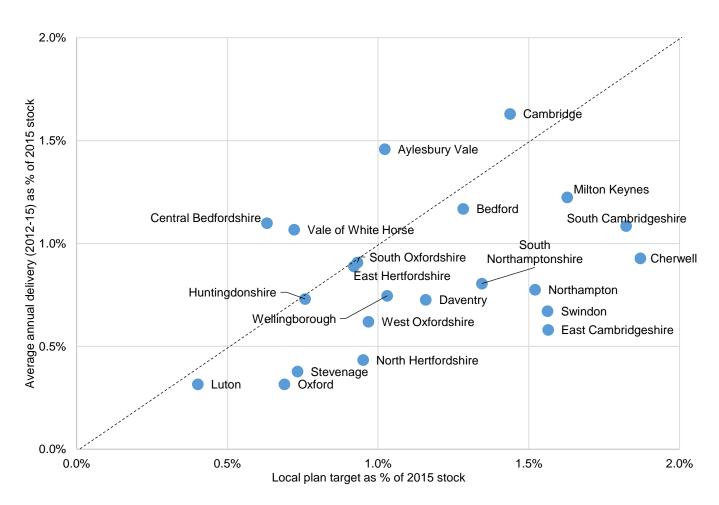
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Not surprisingly, there is a somewhat clearer correlation between local plan targets and delivery. Local authorities are coming closer to consistently achieving their local plan targets than their objectively assessed need. However, in some authorities this represents a substantially lower target. For example Oxford's need is assessed in its current SHMA as 1,400 new homes a year but its current local plan, based on an earlier assessment, targets only 400 homes.

One of the major constraints on housing delivery is land supply. Although much of the corridor is without land constraints in terms of Green Belt, national parks, and SSSIs, those areas where need is highest are frequently the most constrained. This is certainly true of Oxford and Cambridge. As part of the Duty to Cooperate, such unmet need should be met in adjacent and linked housing markets. As an example, the Oxfordshire local authorities are currently engaged in this process of reconciliation via the Oxfordshire Growth Board.

More local authorities are able to meet local plan targets than SHMA OAN, but following the adoption of NPPF-compliant plans, across the entire corridor this chart could look significantly different, with more authorities pushed to the right as targets based on the latest need evidence are adopted.

Figure 36 - Local plan target vs average delivery 2012-2015



Source: DCLG LT-122, Local Plans

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Local authorities are required under the NPPF to identify a deliverable five year supply of land to meet their housing target. Five year land supply is calculated on the basis of local plan housing targets with an adjustment of 5% to 20% depending on past delivery. Those authorities that have consistent under supply year on year have a 20% buffer imposed on their land supply in order to try and address the back log. This drives up their land requirement and creates the need to bring more sites forward. To the east of the corridor there is particularly low five year land supply. Hertfordshire and Stevenage are constrained by Green Belt, as is a substantial part of South Cambridgeshire, which limits the availability of development land. However, even once this is accounted for, identified five year land supply (as reported by the local planning authorities) is particularly low in these areas.

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Figure 37 - Five year land supply across the corridor

Source: Five Year Land Supply Assessments, Ordnance Survey



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Key Conclusions

Local plans targets currently aim to deliver 4,200 fewer homes than the SHMA Objectively Assessed Need across the corridor. Housing delivery is lower, failing to meet those local plan targets by a further 3,700 homes per annum over the past three years, albeit that recent delivery has been much closer to the aggregate target.

However, SHMA OAN is not without its limitations. A number of economic centres within the corridor have produced need targets based on relatively modest economic and household projections. Without simultaneously addressing the backlog of undersupply, and provisioning for future growth, affordability will continue to worsen across the corridor and its housing markets will become less accessible. Housing need overspill from London also forms an important driver within these markets but is only explicitly mentioned in two SHMAs: Aylesbury Vale and East Hertfordshire. Together these two factors suggest there could still be a significant underestimation of need within the corridor. In order to ensure that delivery matches targets and that targets are truly representative of need a number of changes need to come about in the area's planning system.

SHMAs should take a more holistic view of drivers in local markets. Within the corridor that means giving some acknowledgment to the impact of London on heightening demand in well-connected local centres. It also requires realistic interpretation of local economic drivers and the ways in which current levels of supply have imposed a ceiling on migration and growth.

Once target setting becomes a truer reflection of need within the area, NPPF-compliant plans should be pushed forward. Existing plans carry a substantial deficit below current assessments of need. Some authorities with major discrepancies between their need and local plan targets should work more closely with neighbouring authorities to ensure that need is met somewhere in the locality. Delivering the required number of homes will rely on not only collective setting of targets, which is the current practice in many housing market areas, but also on collective delivery.

Land supply is a major constraint on development within some parts of the corridor. There are substantial portions of land across the south of the area constrained by Green Belt and National Parks. However, a number of authorities without these constraints have similarly low five year land supply figures, most notably Milton Keynes. Renewed commitment to bringing forward allocated sites and putting more into the planning pipeline would increase the level of viable delivery towards meeting housing need.

Savills report to NIC



Commercial Property Markets

4.1. Approach

Our analysis of the commercial property market across the corridor reviews historic and current demand for and provision of office, industrial and warehousing property. The aim of this section is to determine whether sufficient commercial property is being supplied to meet demand and whether employment land allocations identified by the local authorities across the area are sufficient to meet our market analysis of future need.

The commercial property markets for offices, warehouses and industrial buildings exhibit different characteristics and as such have been examined separately. Local property markets for offices typically cluster around cities and closely grouped cities, whist industrial buildings and warehousing typically cluster around arterial roads such as motorways, largely due to their proximity to the main transport network. To better analyse local property market characteristics the corridor has been broken down into six Property Market Areas (PMAs) for offices and four PMAs for industrial buildings and warehousing. The PMAs are based on similar characteristics and Savills market intelligence relating to areas of search for premises for businesses wishing to operate within an area, taking into account factors such as labour market structure, access to market areas and suppliers, rental values and appropriate size and grade of stock.

Commercial Property Supply Forecast

For each of the PMAs, Savills have used total stock inventory (sq ft) by classification as recorded by CoStar, cross checked against VOA data. An historic growth rate has been calculated through extrapolation of historic stock inventory to forecast what future supply may look like at the current rate of expansion or contraction.

Commercial Property Demand Forecast

As with supply, Savills have used the same databases to look at current and historic changes in occupied property within the PMAs to determine the current rate of expansion or contraction. This has been used to forecast future commercial property stock requirements.

Understanding Market Conditions

There are a number of key trends that act as a good indicator when assessing how the commercial property market is behaving and whether the market is operating as efficiently as possible to the greatest benefit to economic development. The vacancy rate is the total amount of physically vacant space expressed as a percentage of the total amount of existing inventory. Vacant space is defined as space that is not currently occupied by a tenant, regardless of any lease obligation that may be on the space. A high vacancy rate suggests over supply, whilst a low vacancy rate suggest under supply.

We have also looked at the availability rate which is the total amount of available space expressed as a percentage of the total amount of existing inventory. Available space is defined as the total amount of space that is currently being marketed as available for lease in a given time period. It includes any space that is available, regardless of whether the space is vacant, occupied, available for sublease, or available at a future date, although it excludes space available in proposed buildings.



Savills report to NIC

For a commercial property market to work as efficiently as possible there should be sufficient vacant property available, so businesses looking for premises are not overly constrained in their choice of property by size, location, quality or availability. When the supply of property is too high there is likely to be a downwards pressure on rents over time as landlords reduce their asking rents to fill their properties. Conversely when there is insufficient supply to meet demand rental rates would over time be expected to rise. With properly operating markets every property market has its own equilibrium vacancy rate that balances supply and demand. Our reference point is that a vacancy rate of between 5% and 10% indicates that the market is operating efficiently.

Property Stock Quality and Size

The CoStar dataset lists all properties by quality and size. This provides a useful insight into the constituency of the property stock. There may appear to be sufficient stock to meet demand, but the size and quality may not be what current or future business require. There may be a proportion of the stock that will remain unoccupied because it is not fit for purpose. Therefore we have reviewed the stock in each of the PMAs by size and quality.

Property Use Definitions

We have analysed floorspace and land data for business activities which operate from premises with B1, B2 and B8 use classes. Throughout this report we refer to:

- Offices comprising use classes B1a (office) and B1b (research and development or R&D) as these premises are often very similar in their operational requirements; and
- Industry comprising use classes B1c (light industry), B2 (manufacturing) and B8 (warehousing).





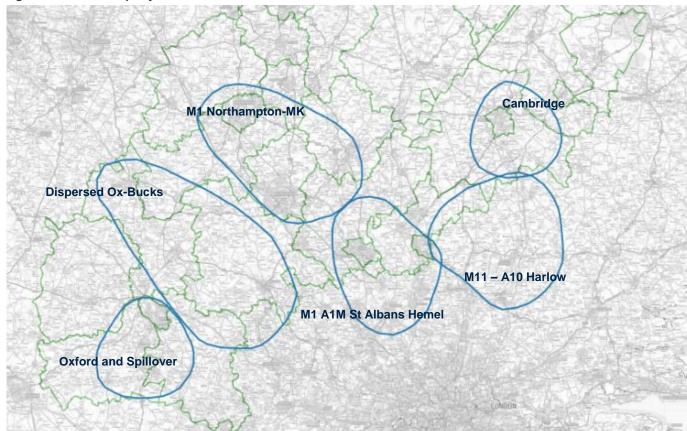
4.2. Office Markets

4.2.1. Office Property Market Areas

Office properties within the Cambridge – Milton Keynes – Oxford corridor have been split into the areas shown in Figure 38. They cover following distinct areas:

- Cambridge
- M11 A10 Harlow
- M1 A1M St Albans Hemel
- M1 Northampton-MK
- Oxford and Spillover
- Dispersed Ox-Bucks.

Figure 38 -Office Property Market Areas



Source: Savills

Cambridge PMA

The Cambridge PMA centres around the City of Cambridge and incorporates the City's hinterland, its surrounding Green Belt, the hi-tec business cluster 'Silicon Fen' and Cambridge Airport. As the Green Belt acts as a barrier to development, the city's natural expansion has been curtailed, which creates a distinct PMA.



Savills report to NIC

M11 - A10 Harlow PMA

The M11-A10 Harlow PMA straddles the M11, incorporating Harlow, Bishops Stortford, Saffron Waldon and a cluster of small towns and villages in the surrounding area. The highest density of commercial property in the area centres on the two largest towns and Stansted Airport.

M1 A1M St Albans Hemel PMA

The M1 A1M St Albans Hemel PMA incorporates a number of settlements along the M1 between junctions 4 and 12, extending to the east to incorporate the A1M. The PMA covers the section of the M25 that intersects the two roads. As a critical transport node there is a high density of settlements and commercial property clustering both around the key transport routes and principal settlements. The PMA covers Luton, Dunstable, Stevenage, St Albans, Hemel Hempstead, Watford, Hatfield and Welwyn Garden City.

M1 Northampton-MK PMA

To the north of the St Albans Hemel PMA is a second clustering of settlements centred on the M1 between junctions 12 and 16. The PMA incorporates the three principle settlements of Northampton, Bedford and Milton Keynes. Each of the settlements has a high density of commercial property that continues along the arterial routes connecting them. The northern portion of the PMA covers the southern section of the 'Golden Triangle' of logistics companies that locate there to take advantage of the main north / south, east / west transport intersections.

Oxford and Spillover PMA

Like the Cambridge PMA, the Oxford and Spillover PMA is mainly self contained within a large Green Belt encircling the city. The PMA also incorporates Abingdon which is located just outside the Oxford Green Belt and has a dense cluster of commercial property.

Dispersed Ox-Bucks PMA

The Dispersed Ox-Bucks PMA centres around the settlements along the M40 corridor. The PMA is characterised by dispersed medium sized settlements interconnected by arterial roads. The principle settlements in the PMA are Banbury, Bicester, Aylesbury, Thame and Buckingham.

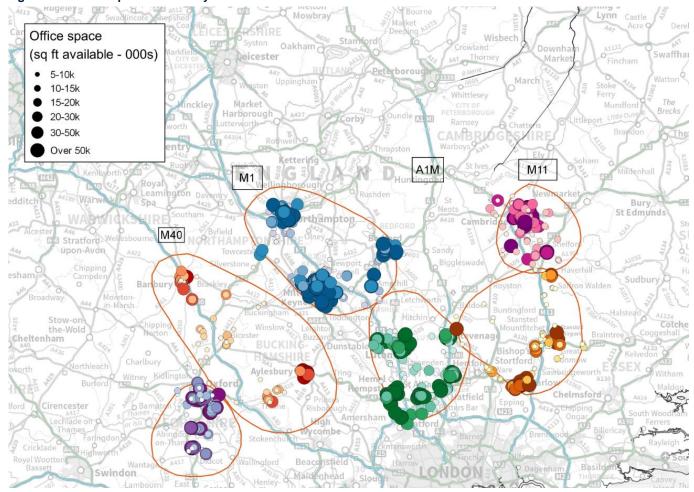




4.2.2. Office Supply

Figure 39 shows the distribution of available office stock which is predominantly clustered around larger settlements, most notably in Oxford, Aylesbury, Banbury, Milton Keynes, Northampton, Bedford, Luton, Watford, St Albans, Stevenage, Harlow, Bishop's Stortford and Cambridge.

Figure 39 - Office space availability



Source: CoStar, Savills

Appendix C gives a more detailed profile of the each of the PMAs, looking at total stock, distribution of stock by size and sub market, occupancy, vacancy rates and rental levels.

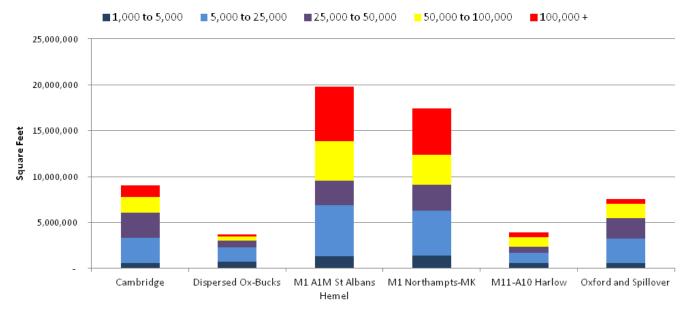


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Office Supply Within PMAs

Across the six PMAs there are over 60 million sq ft of existing offices space widely dispersed between the key settlements and along the main arterial roads. The highest concentration of office stock is located in the largest urban centres such as Cambridge, Oxford, Luton, Watford, Milton Keynes and Northampton. The office stock ranges from small city centre units to premises over 600,000 sq ft. For ease of analysis the office stock has been split into five size classes as shown in Figure 40. The largest offices tend to be located along the M1 corridor, with a significant proportion also located within Cambridge City Centre. The three PMAs, Cambridge, Oxford and Spill Over; and Dispersed Ox-Bucks all have the largest proportion of stock under 50,000 sq ft, whilst three other PMAs have a larger proportion of their stock over 50,000 sq ft.

Figure 40 – Total office stock by size (sq ft) in the six PMAs



Source: CoStar, Savills

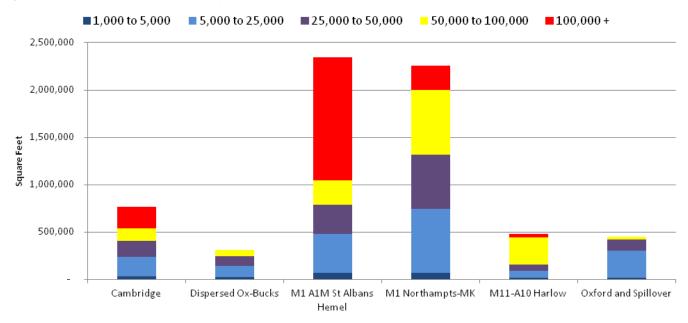
Available Office Supply within the PMAs

Across the six PMAs there is over 6 million sq ft of available office stock (Figure 41). Compared to the breakdown of total office stock there is proportionally more larger offices available. This is particularly noticeable in the M1 A1M PMA. There is also a particular scarcity of smaller offices in the principal settlements, most noticeably in Oxford and Cambridge.





Figure 41 - Total vacant office stock by size (sq ft) in the six PMAs



Source: CoStar, Savills

Quality of Office Supply

Whilst office stock availability is crucial to understanding current supply and the ability of a sector to grow, it is also relevant to review the quality of the existing and available stock, which may be a guide to whether the stock is fit for intended purpose. The CoStar five star rating criteria is widely used across the industry to categorise properties by quality. Figure 42 below shows the delineation between the five star ratings.

Figure 42 - CoStar Office Rating Criteria

****	New or refurbished construction exhibiting the latest trends in office design.
	Prominent in its context.
****	Sustainable and energy efficient.
	High quality materials and systems.
	Efficient floor plates and generous ceiling heights.
	High glazing ratios for daylight and views.
	Rents above market averages.
***	An older structure, but not refurbished.
	Standard ceiling heights with less efficient floor plates.
	Average or near average market rents
**	 In need of significant refurbishment or only suitable for smaller tenants.
	Lowest rents in market.
*	

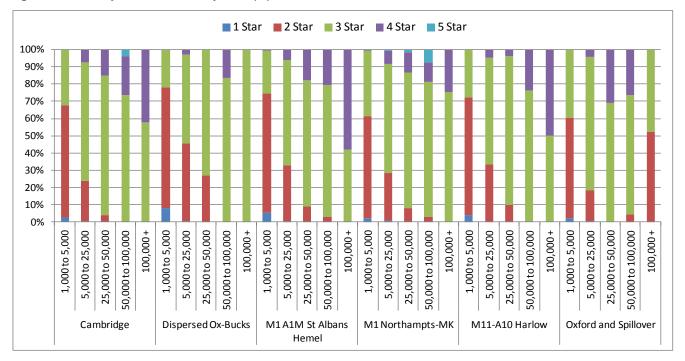
Source: CoStar, Savills

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Figure 43 shows the quality of office stock split by office size across the PMAs by sq ft. The graph shows that the quality of office stock deteriorates as the size of the office decreases. Across all PMAs the larger offices are newer or refurbished, more sustainable and spacious. The majority of offices by sq ft is rated three stars or lower, indicating older, and usually less efficient structures.

Figure 43 - Quality of office stock by PMA (%)



Source: CoStar, Savills





Figure 44 shows the quality of office stock across the PMAs in absolute terms. The scarcity of four and five star offices, particularly at the smaller end of the market is noticeable, as is the quality of the large office stock along the M1 corridor. This suggests that there has been a focus on newer or refurbished and more efficient offices in this area.

■1 Star ■2 Star ■3 Star ■4 Star ■5 Star 7.000.000 6,000,000 5,000,000 Square Feet 4,000,000 3,000,000 2,000,000 1,000,000 25,000 to 50,000 50,000 to 100,000 1,000 to 5,000 5,000 to 25,000 25,000 to 50,000 50,000 to 100,000 25,000 to 50,000 50,000 to 100,000 100,000+ 1,000 to 5,000 5,000 to 25,000 25,000 to 50,000 000 to 100,000 1,000 to 5,000 50,000 to 100,000 100,000+ 1,000 to 5,000 5,000 to 25,000 100,000+ 100,000+ 1,000 to 5,000 5,000 to 25,000 +000'001 5,000 to 25,000 25,000 to 50,000 5,000 to 25,000 25,000 to 50,000 50,000 to 100,000 1,000 to 5,000 +000'000 Oxford and Spillover Cambridge Dispersed Ox-Bucks M1A1M St Albans M1 Northampts-MK M11-A10 Harlow

Figure 44 - Quality of office stock (sq ft) by PMA

Source: CoStar, Savills

4.2.3. Office Supply Trends

The prevailing trend within the office market across the PMAs shows a general falling of additional stock (sq ft) across the PMAs over the past six or seven years, with some recent increases in Cambridge and in the M11-A10 Harlow area. All the PMAs have seen a sharp reduction in the percentage of available office stock. Over the recent past on a macro level supply has fallen significantly and new properties in the future pipeline has reduced. This has been coupled with an increase in price per sq ft.

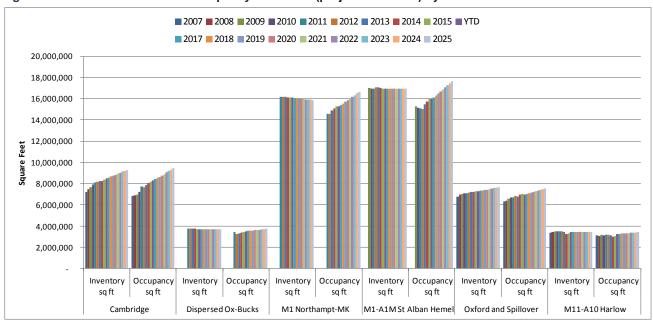
Figure 45 shows total stock inventory and occupancy by sq ft from 2007 to 2016, estimated to 2025 across the PMAs. The graph shows year on year that occupancy increases faster than total stock. Across all PMAs at the current rate of vacant property uptake there will be insufficient supply to meet demand.

Figure 46 shows new additional stock (sq ft) per annum by PMA. Whilst in nearly every year new stock is added to the total inventory of stock, some existing stock ceases to be classified as office related. The general trend from 2011 to 2016 has seen a decrease in the total amount of new stock across the six PMAs. There has been a recent increase in Cambridge and M11-A10 Harlow over the last two years, but the overall trend is downwards.

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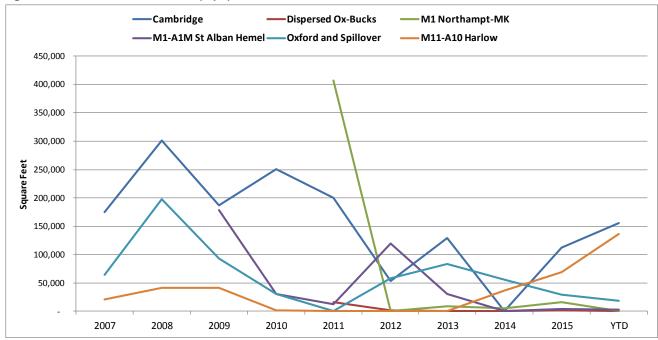


Figure 45 - Total stock and total occupancy 2011-2016 (projected to 2025) by PMA



Source: CoStar, Savills

Figure 46 -Additional office stock (sq ft) in PMAs 2007-YTD



Source: CoStar, Savills



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Figure 47 shows the change in the proportion of the total office stock that is vacant and available to rent. Across all six PMAs there is a clear downwards vacancy rate trend, suggesting that there is or will be insufficient stock across all PMAs to meet demand. Given the wide range of stock quality identified earlier in this section we would not expect a zero vacancy rate as there will always be a residual proportion on properties that are not fit for the requirements of those seeking premises.

In both the Cambridge and Oxford and Spillover PMAs the vacancy rate has fallen below 4%. The Dispersed Ox-Bucks, M1 Northampton-MK, M1-A1M St Albans Hemel and M11-A10 Harlow PMAs have all seen their vacancy rates fall rapidly over the past four years to rates of 5% and 6%, indicating that supply has not kept pace with demand.

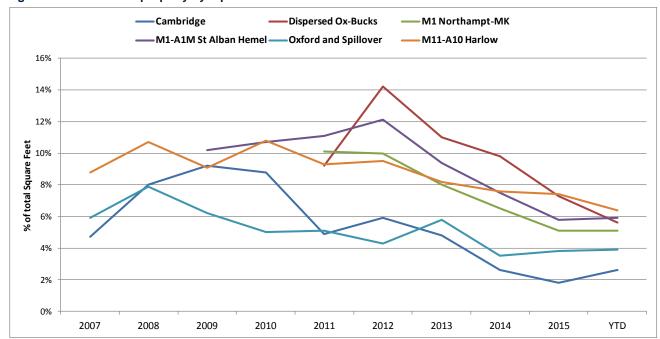


Figure 47 -% of vacant property by sq ft in PMAs 2007-YTD

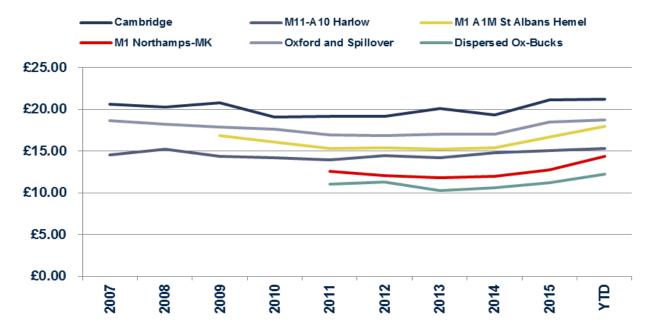
Source: CoStar, Savills

Figure 48 and Figure 49 show rent (£) by sq ft between the six PMAs from 2007. The proportional rent increases of all six PMAs show a similar trend, all showing rent increases of over 10% in under five years, with substantial increases over the past two years. Taken in combination with the vacancy rates over the past two years, the data suggests that prices have adjusted significantly upwards because of insufficient supply.

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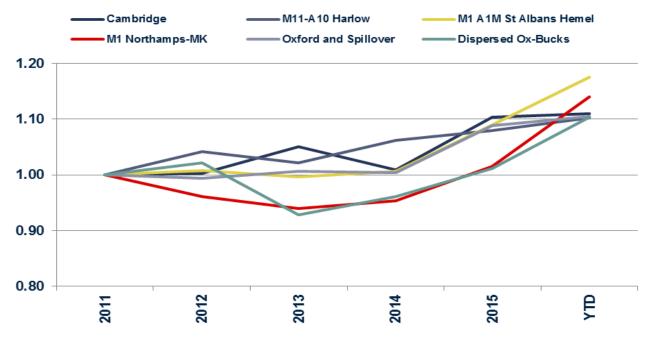


Figure 48 – Average rent £/sq ft by six PMAs (2007-YTD)



Source: CoStar, Savills

Figure 49 - Indexed average rent £/sq ft by six PMAs



Source: CoStar, Savills





4.2.4. Summary of Office PMAs

The overall trend for office property shows demand growing at a faster rate than supply. On past trends we would expect demand to exceed total supply in the next five to ten years. This trend is more acute around Cambridge, the M1/ M11/M25 intersection settlements and around the Northampton, Bedford and Milton Keynes area. The last three years has seen a sharp reduction in the proportion of total stock available for rent. In Oxford and Cambridge there is strong evidence that there is little suitable office accommodation available. This is translated into a sharp increase in asking rents, up by over 18% in the Cambridge PMA and 13% in Oxford and Spillover PMA over the past two and a half years. In these circumtances we would expect two negative outcomes:

- insufficient stock to meet growing economic needs, which would have a constraining effect on local economic growth;
 and
- increased rents affecting productivity and the competitive edge of the sectors operating within the PMAs.

Cambridge PMA

There has been a steady increase in stock in the PMA between 2007 and 2016. At the current growth rate there will be approximately an additional 700,000 sq ft by 2025. There has been a steady increase in new stock at an average of approximately 89,000 sq ft a year. However this appears to be replacing a lot of older stock.

There has also been a steady increase in occupancy of the stock between 2007 and 2016. At current growth rates an additional 120,000 sq ft will be needed by 2025 to absorb demand. The vacancy rate has decreased substantially between 2013 and 2016 to around 2%, suggesting that insufficient stock is being built. Given the quality profile of the PMA it is highly likely that the residual vacant property may in large part not be of sufficient quality to meet the requirements of future tenants.

Asking rent per sq ft has increased significantly over the past two years suggesting that the market is reacting to demand outstripping supply. The data available on stock, occupancy, new stock, vacancy rates, asking rents and the stock quality profile all suggest that on current trend there will be insufficient stock to meet demand. It is likely that current stock availability and rent levels are restricting growth in the PMA.

M11 - A10 Harlow PMA

There has been near stagnation in stock in the PMA between 2007 and 2016. At the current growth rate there will only be an additional 100,000 sq ft by 2025. Within this picture, there has been a relatively small increase in new stock at an average of approximately 45,000 sq ft a year. However this appears to be replacing a lot of older stock.

There has also been a relatively small increase in occupancy of the stock between 2007 and 2016. At current growth rates an additional 150,000 sq ft will be needed to absorb demand. The vacancy rate has decreased substantially between 2014 and 2016 from 13% to around 6%. This also suggests that insufficient stock is being built to meet the current rate of take up. Given the quality profile of the PMA it is likely that the residual 6% vacant property may not be of sufficient quality to meet the requirements of future tenants. Asking rent per sq ft has steadily increased between 2012 and 2016.

The data available on stock, occupancy, new stock, vacancy rates, asking rents and the stock quality profile all suggest that on current trend there will be tightening of the market in ten years. If trends are drawn from just the past 18 months the trajectory may be steeper and demand may exceed supply earlier.



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M1 A1M St Albans Hemel PMA

The CoStar data shows a marginal decrease in stock in the PMA between 2007 and 2016. At the current growth rate there will be approximately 20,000 fewer sq feet of stock by 2025. There has been a steady increase in new stock at an average of approximately 30,000 sq ft a year. However this appears to be replacing a lot of older stock.

There has also been a steady increase in occupancy of the stock between 2007 and 2016. At current growth rates an additional 1.5 million sq feet will be needed by 2025 to absorb demand. The vacancy rate has decreased substantially between 2011 and 2016 to around 5% from 12%, which suggests that insufficient is being built.

Asking rent per sq ft has increased by around 20% over the past two years suggesting that the market is responding to demand outstripping supply. Given the significant changes in asking rents and vacancy rates over the past two years the stock growth profile in the CoStar data may be more reflective of current trends.

The data available on stock, occupancy, new stock, vacancy rates, asking rents and the stock quality profile all suggest that on current trends there will be insufficient stock to meet demand.

M1 Northampton-MK PMA

The total stock datasets for the M1 Northampton PMA shows a similar pattern to the M1 A1M St Albans Hemel area. CoStar shows a marginal decrease between 2016 and 2025. Over the past five years only 6,000 sq ft of new stock has been completed.

There has also been a steady increase in occupancy of the stock between 2007 and 2016. At current growth rates an additional 1.4 million sq ft will be needed by 2025 to absorb demand. At current growth rates demand will outstrip supply by 2020. The vacancy rate has decreased substantially between 2012 and 2016 to 5% which may also suggest that insufficient stock is being built. Given the quality profile of the PMA it is highly likely that the residual 5% vacant property is not of sufficient quality to meet the requirements of future tenants.

Asking rent per sq ft has increased significantly over the past 18 months suggesting that the market is responding to demand outstripping supply. The data available on stock, occupancy, new stock, vacancy rates, asking rents and the stock quality profile all suggest that on current trend there will be insufficient stock to meet supplies.

Oxford and Spillover PMA

The CoStar data shows similar growth trends for the Oxford and Spillover PMA. This suggests that on current trend there will be an additional 400,000 sq ft of stock by 2025. There has also been a relatively small increase in occupancy of the stock between 2007 and 2016. At current growth rates an additional 500,000 sq ft will be needed by 2025 to absorb demand. The vacancy rate has decreased between 2013 and 2016 from 6% to around 4%, suggesting that insufficient stock is being built to meet the current rate of take up.

Asking rent per sq ft has steadily increased between 2012 and 2016, but with a more noticeable increase in the past two years.

The data available on stock, occupancy, new stock, vacancy rates, asking rents and the stock quality profile all suggest that on current trend there will be tightening of the market in ten years. Should there be a more rapid increase in demand it is unlikely on current trends that the Oxford and Spillover PMA will be able to absorb it.



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Dispersed Ox-Bucks PMA

Both the CoStar and VOA datasets show similar growth trends for the Dispersed Ox-Bucks PMA. VOA data indicates a marginal increase in total stock, whilst CoStar suggests a marginal decrease, but both show an effective plateauing of total stock. Figure 46 shows that hardly any new stock has been completed over the past five years, with just an additional 600 sq ft on average per annum.

There has also been a relatively small increase in occupancy of the stock between 2007 and 2016. At current growth rates an additional 200,000 sq ft will be needed by 2025 to absorb demand. The vacancy rate decreased sharply between 2013 and 2016 from 14% to around 7%, suggesting that the available stock is being taken up at an increasing rate.

Asking rent per sq ft has steadily increased between 2012 and 2016, but with a more noticeable increase in the past two years.

The data available on stock, occupancy, new stock, vacancy rates, asking rents and the stock quality profile all suggest that on current trend there will be tightening of the market in ten years. Should there be a more rapid increase in demand it is unlikely on current trends that the Dispersed Ox-Bucks PMA will be able to absorb it.



Savills report to NIC

4.3. Industrial and Warehousing Markets

4.3.1. Industrial and Warehousing Property Market Areas

To analyse the industrial and warehousing property market the corridor has been split into the following distinct areas:

- A1M Corridor
- M1 Corridor
- M11 Corridor
- M40 Corridor.

Unlike office property, industrial and warehousing units have a greater reliance on main transport routes. Distribution and logistics industries in particular gravitate to the main arterial routes. This in effect creates fairly distinct property markets along motorway corridors. In the context of the corridors four major motorways start in North London and connect with various parts of the Midlands, creating corridors that intersect the Oxford - Milton Keynes – Cambridge corridor.

A1M Corridor PMA

The A1M Corridor PMA follows the route of the A1 and A1M from Barnet to Huntingdon and includes Enfield, Hatfield, Stevenage and Welwyn Garden City.

M1 Corridor PMA

By size the M1 Corridor is the largest, following the route of the M1 from Watford to Rugby and extending on the eastern side to Kettering, Wellingborough and Bedford. The corridor also covers Luton, Dunstable, Hemel Hempstead, Milton Keynes and Rugby.

M11 Corridor PMA

The M11 Corridor PMA follows the route of the M11, starting from the intersection with the M25 and continuing to just beyond Cambridge, incorporating Harlow and Bishop's Stortford.

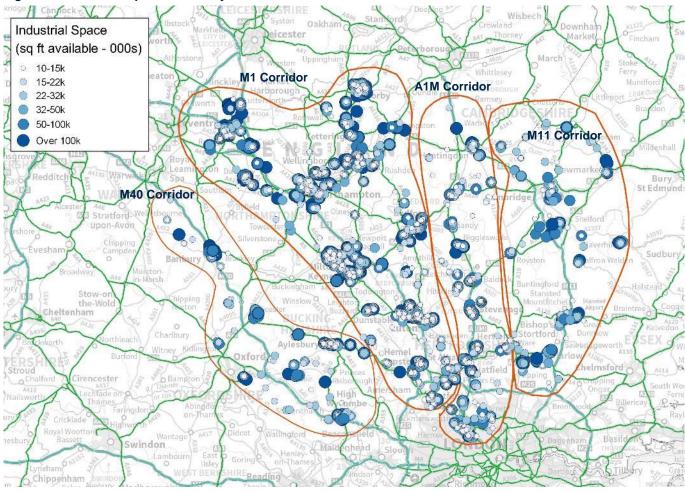
M40 Corridor PMA

The M40 Corridor PMA follows the route of the M40, starting at the intersection of the M25 and continuing up to Banbury, incorporating High Wycombe and Oxford.

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Figure 50 - Industrial space availability



Source: CoStar, Savills

4.3.2. Industrial and Warehousing Supply

Industrial and Warehousing Supply within PMAs

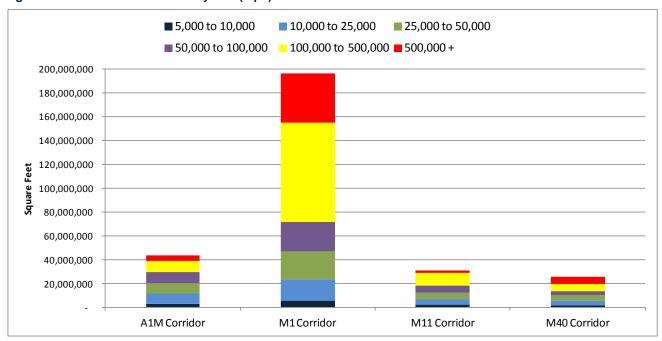
Across the four PMAs there are over 290 million sq ft of existing industrial and warehousing space dispersed between the key settlements and along the main arterial roads. The highest concentration of industrial and warehousing stock is located in close proximity to the motorways and tends to be on the edge of the larger settlements. For ease of analysis the industrial stock has been split into six size classes as shown in Figure 50.

Appendix D gives a more detailed profile of the each of the PMAs, looking at total stock, distribution of stock by size and sub market, occupancy, vacancy rates, rental levels and gives growth projections.

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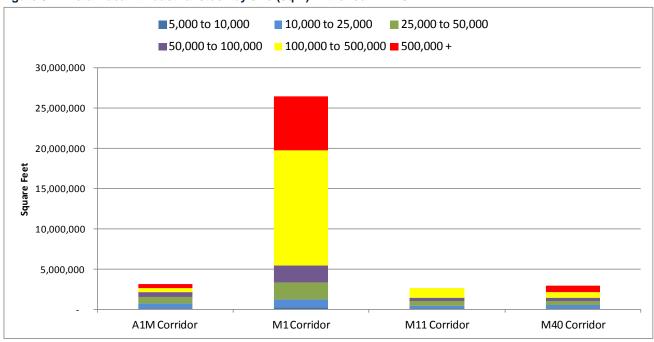


Figure 51 - Total industrial stock by size (sq ft) in the four PMAs



Source: CoStar, Savills

Figure 52 - Total vacant industrial stock by size (sq ft) in the four PMAs



Source: CoStar, Savills

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Quality of Industrial Property Supply

Figure 53 and Figure 54 show the quality of industrial property stock split by size across the PMAs by sq ft. The graph shows a correlation between size and quality, with most properties less than 100,000 sq ft categorised as 3 stars or below. Properties over 100,000 sq ft tend to be of better quality, especially along the M1 and to an extent the M11.

Figure 53 - Quality of industrial stock by PMA (%)

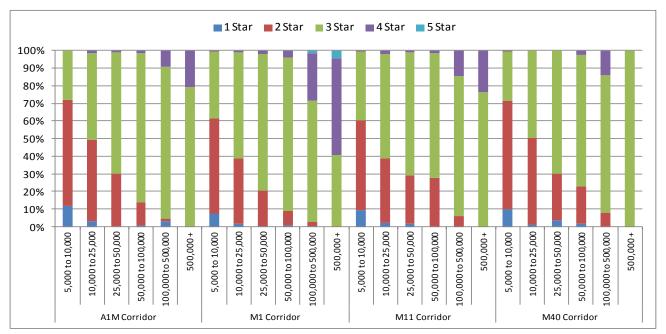
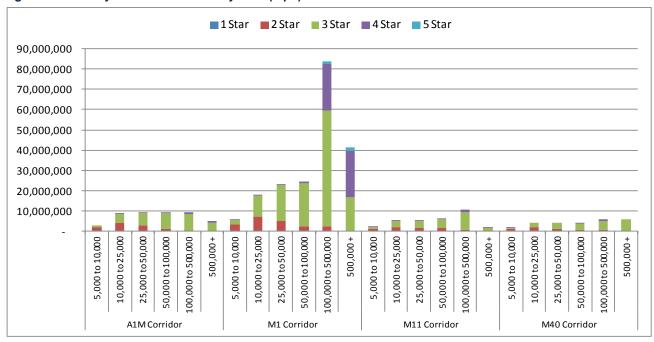


Figure 54 - Quality of Industrial stock by PMA (sq ft)



Source: CoStar, Savills



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4.3.3. Industrial and Warehousing Supply Trends

Figure 55 shows total stock inventory and occupancy from 2009 to 2016, estimated to 2025 across the PMAs. The graph shows year on year that occupancy increases faster than total stock. Across all PMAs at the current rate of vacant property uptake there will be insufficient supply to meet demand.

2009 2010 2011 2012 2013 2014 2015 2016 2017
2018 2019 2020 2021 2022 2023 2024 2025 2026

250,000,000
200,000,000
150,000,000
Inventorysq ft Occupancysq ft Inventorysq ft Inventorysq ft Occupancysq ft Inventorysq ft

Figure 55 - Total stock and total occupancy 2011-2016 (projected to 2025) by PMA

Source: CoStar, Savills

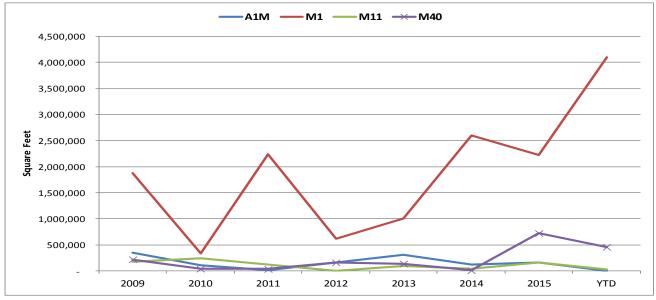
Figure 56 shows new additional stock (sq ft) per annum by PMA. Whilst in nearly every year new stock is added to the total inventory of stock, some existing stock ceases to be classified as industrial and warehousing related. The general trend from 2011 to 2016 has seen increasing new stock in the M1 and M40 corridors, substantially so in the case of the M1 corridor, but falling completions of new stock by historic levels in the M11 and A1M corridors.

Figure 57 shows the change in the proportion of the total industrial and warehousing stock that is vacant and available to rent. The graph shows a uniform trend of decreasing availability from between 12% to 14% of total stock to around 6% to 7% between 2009 and 2016. Across all four PMAs there is a clear downwards vacancy rate trend, suggesting that there is or will be insufficient stock across all PMAs to meet demand.



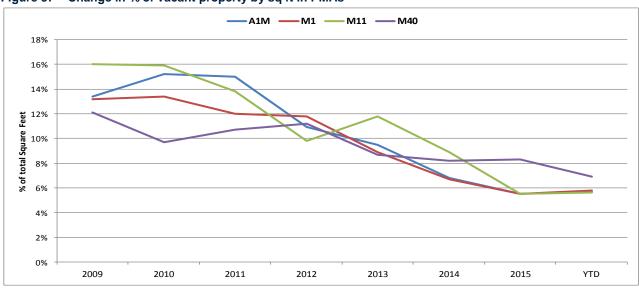


Figure 56 - Change in additional industrial stock (sq ft) in PMAs



Source: CoStar, Savills

Figure 57 - Change in % of vacant property by sq ft in PMAs



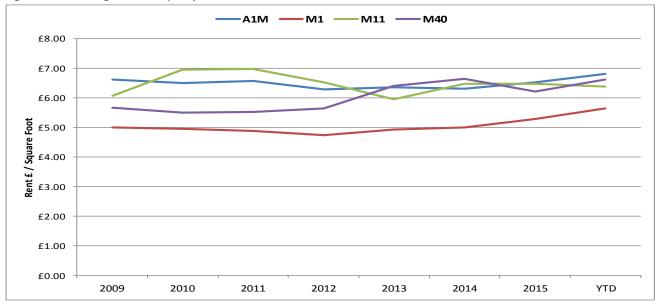
Source: CoStar, Savills





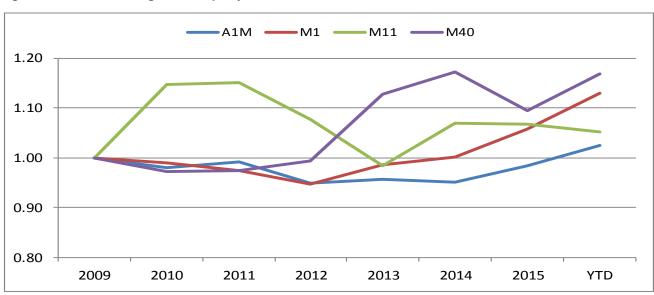
Figure 58 and Figure 59 show rent (£) per sq ft across the four PMAs from 2007. Figure 58 shows actual change in cost, whilst Figure 59 shows proportional change base lined to 2011. The increase in rents in the M1, A1M and M40 corridors shows a significant increase over the past 18 months, which has coincided with a significantly falling vacancy rate, which would suggest a scarcity of supply, or a scarcity of the right type of supply.

Figure 58 - Average rent £/sq ft by PMA



Source: CoStar, Savills

Figure 59 - Indexed average rent £/sq ft by PMA



Source: CoStar, Savills



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4.3.4. Summary of Industrial and Warehousing PMAs

On current projections demand for industrial and warehousing property in the corridor exceeds supply in the next three to eight years. This is most acute along the M11 and M1 corridors where demand has grown strongly over the past two years. There has been an equally sharp reduction in the total stock available for rent across all four PMAs. Between 2009 and 2016 the vacancy rate has fallen from between 12% to 15%; to 6% to 7%, suggesting that most of the residual stock has been occupied. This has not however translated into significant rental increases.

A1M Corridor PMA

There has been reasonably strong growth in demand for industrial and warehousing stock in the A1M Corridor PMA, with growth currently at 0.9% p/a. However the growth in supply has been far lower at 0.01% p/a. At the current stock growth rate there will be an additional 40,000 sq ft of extra stock, but a projected requirement for an additional 3.5 million sq ft by 2026.

The vacancy rate has fallen below the estimated equilibrium rate to 6% although the average rental level between 2009 to 2016 is virtually unchanged.

M1 Corridor PMA

There has been reasonably strong growth in demand for industrial and warehousing stock in the M1 Corridor PMA, with growth currently at 2.8% p/a. However the growth in supply has been far lower at 1.9% p/a. At the current stock growth rate there will be an additional 35 million sq ft of extra stock, but a projected requirement for an additional 53 million sq ft by 2026.

The vacancy rate has fallen below the estimated equilibrium rate to 3% and the average rent has increased by 12% between 2009 and 2016.

M11 Corridor PMA

There has been reasonably strong growth in demand for industrial and warehousing stock in the M11 Corridor PMA, with growth currently at 1.9% p/a. However the growth in supply has been far lower at 0.2% p/a. At the current stock growth rate there will be an additional 500,000 sq ft of extra stock, but a projected requirement for an additional 5.9 million sq ft at by 2026.

The vacancy rate has fallen below the equilibrium rate to 3% and the average rent has increased by 5% between 2009 and 2016.

M40 Corridor PMA

There has been reasonably strong growth in demand for industrial and warehousing stock in the M40 Corridor PMA, with growth currently at 1.4% p/a. However the growth in supply has been far lower at 0.9% p/a. At the current stock growth rate there will be an additional 2.3 million sq ft of extra stock, but a projected requirement for an additional 3.5 million sq ft at by 2026.

The vacancy rate has fallen below the equilibrium rate to 7% and the average rent has increased by 18% between 2009 and 2016.





4.4. Planning Workspace for Employment Growth

The previous sections have concluded that there is growing demand for office and industrial space in the Cambridge - Milton Keynes - Oxford corridor PMAs and market signals are that supply is not responding sufficiently to meet the demand. This section reviews information on the allocation and supply of land for employment uses, primarily drawing upon local authority employment land reviews.

Local authorities vary in the approaches they use to employment land reviews and allocations policies, and much information is dated and/or incomplete. Consequently we have not been able to draw definitive conclusions on the overall planned supply of employment land in the different PMAs. The analysis from the previous sections though strongly suggests that the process of supply is at least not responding quickly enough.

A more structured and consistent approach to employment land reviews would allow for more effective strategic planning across the corridor.

4.4.1. Market Summary

From our analysis of the current property market for offices, industrial buildings and warehousing we have identified a number of local trends across use class and PMAs. The main trend across the corridor is the strong growth in demand for property of all types, with take up outpacing new supply. In nearly all areas the projected growth of stock inventory will be insufficient to meet the projected growth in supply.

The areas where the workspace constraints to growth are most acute are in the Cambridge and M1 A1M St Albans Hemel office PMAs where at current rates of demand there will be no floorspace remaining by 2020 and 2021. In the industrial and warehousing sector there will be no remaining vacant floorspace in the M1 and M11 corridors by 2019.

The quantum of stock and occupied stock tells a partial story. Of the total stock there will always be a proportion that is not fit for the purpose of current business and to a greater degree for future businesses. The stock quality analysis for each of the PMAs show that on the whole the stock is three star or below, meaning older properties, not refurbished, with inefficient floor plates. There is however a significant proportion of four and five star offices in the Cambridge office PMA and the M1 industrial corridor.

In an efficient property market we would expect a vacancy rate close to between 5% and 10% to ensure businesses wishing to locate in an area do not face supply barriers, whilst maintaining incentives for developers and landlords to be attracted to the area. The downside of a low vacancy rates is that it acts as a deterring factor for prospective businesses and causes rents to rise. The over-arching trend for each of the PMAs is striking. For the industrial and warehousing PMAs at the start of 2014 they all had vacancy rates of between 8% and 10%. By September 2016 they had fallen below 6%. For the office PMAs the vacancy rates have fallen below 6%, mostly from above 10% in 2014.

Another indicator to fall in vacancy rates has been the rise in rents, which has been particularly acute in the office sector. The tightening of the property markets across all of the PMAs has occurred within the past eighteen to twenty four months.



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4.4.2. Limitations in the Employment Land Review Data

There are a number of difficulties associated with utilising the employment land reviews produced by each individual local authority. Primarily these difficulties relate to the inconsistent methodologies used.

Some local authorities use historic property trends to predict future demand and others using population and/or employment growth estimates. Supply estimates in each review include different combinations of existing vacant stock, churn, existing employment sites to be intensified, allocated sites, suggested allocations and proposed employment sites, pipeline development with planning permissions and sites currently under construction.

The reviews are also inconsistent in how they deal with existing employment sites or allocations which are being lost to other uses, with some making an allowance for this within their projections and others explicitly not including this lost floorspace. Additionally some of the reviews split supply and demand projections by use classes, whereas others do not include this granularity of analysis, and ignore the nuances of land and allocations potentially switching between B use classes.

Several of the local authorities provide their analysis in terms of floorspace required (in sq m), rather than land area (in ha). Given the differing plot ratios across the B use classes and geographical locations, it is difficult to compare the results of these reviews to those which use land area.

Each employment land review is also based on differing projection timeframes, related to when the document was produced and the local plan period they are associated with. Some of the documents are now over five years out of date, with subsequent update documents not providing a quantitative review of supply and demand projections.

Finally, seven of the reviews do not include a quantitative analysis of both demand and supply, providing a numerical projection of supply or demand, but not both. Rather, supply or demand is benchmarked against a qualitative assessment.

Overall this means it is difficult to draw meaningful conclusions from the documents when considered collectively.

4.4.3. Employment Land Reviews Across the Corridor

We have reviewed local authority employment land reviews and local plans to seek information on proposed allocations and supply. However due to the wide variation in approach and incomplete information in many cases it has not been possible to quantify supply. The nearest we have been able to get is to review each local authority's estimate of demand. If they have been consistent in their approach they should then be allocating (or releasing) sufficient land to match up with their estimates of demand.

Appendix E shows each local authority's estimate of demand for employment land across the Corridor, broken down by local authority, use class and size. For each local authority there is a reference to the period the employment land review covers, for example the Swindon Employment Land Review covers the years 2006 to 2026, whilst Cambridge covers 2011 to 2031 and Bedford covers 2015 to 2032. The fragmented nature of the data makes the compilation of an overarching dataset of current demand and supply across the region difficult. Therefore Appendix E should be treated as a review of existing employment land reviews, rather than a concrete foundation on which to base future planning.



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As the employment land reviews have staggered start dates, covering different periods, the data they are based on will be up to ten years old in many cases. However the demand, supply and market analysis in this section of the report is based on the latest market data and in many cases show recent trends that may have more bearing on future demand and therefore supply than would be reflected in employment land reviews.

The demand and supply analysis in this report provides a good foundation on which to understand current and historic trends and to estimate future requirements, in contrast to much of the data in the employment land reviews which is limited, inconsistent and in large parts dated.

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Growth Scenarios

We have drawn up three growth scenarios (baseline, incremental and transformational), to test the potential for additional economic growth in the corridor via:

- · an increase in housing supply in markets where affordability and travel to work patterns are constraining growth; and
- investment in transport infrastructure to:
 - o accelerate housing delivery in areas of most need; and
 - o enable the provision of additional workspace in areas of highest most productive employment growth.

5.1. Baseline (Business As Usual) Scenario

Our baseline scenario is that recent levels of housing delivery are maintained. The supply of new homes across the area has increased significantly in recent years, reaching 14,200 net additional homes in 2014/15, the most recent year of complete data, with a further increase in delivery likely to have been achieved in 2015/16¹¹. Assuming that recent delivery is around 15,000 homes, this is an increase of some 45% from 2012/13.

Given the range of past delivery levels and the current policy environment, our conclusion is therefore for a baseline scenario of 15,000 homes per annum across the corridor to 2030, some 6% less than the aggregate housing target across the corridor. It is broadly in line with the combined official household projections across the corridor of approximately 15,500 in the 2014-based projections and 16,000 for the 2012-based projection, but it is significantly less than housing need across the corridor.

There are downside risks to this baseline delivery scenario, should the market for new homes soften at any point. In the short term, there are market risks relating to the uncertain economic impact of the UK leaving the European Union, although most parts of the property market, including most new homes markets, have remained strong since the EU Referendum, with rates of sale of new homes being maintained. Those markets that have softened since the Referendum are reacting in large part to other market influences. Over the longer term to 2050, there is a high likelihood of a number of cyclical market downturns, which would affect housing delivery negatively.

5.2. Incremental (Meeting Local Need) Scenario

Housing need across the corridor, as measured by the latest SHMAs, is 20,135 homes per year. Our incremental scenario is that delivery increases to 20,000 additional homes per annum across the corridor, to meet this level of need.

¹¹ Since this report was completed, new DCLG data show that housing delivery across the corridor was 16,400 net additional dwellings in 2015/16, confirming that 15,000 homes is a reasonable indicator of recent delivery across the corridor over the last two years.

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5.3. Transformational (Maximising Growth) Scenario

Out transformational scenario is that high levels of housing supply improve housing markets, unlocking productivity gains and additional economic growth potential. There are two potential sources of additional housing need in our transformational scenario beyond the levels set out in SHMAs:

- the first comes from the corridor taking a share of national housing need of 300,000 additional homes per annum, with the distribution of supply skewed towards those local economies in which housing supply is constraining growth; and
- the second is to meet need from economically connected areas in which there is insufficient deliverable land on which to meet housing need, with the most notable constrained area being London.

Studies of the impact of housing supply on affordability have concluded that only at these high levels of supply is there any significant impact on house prices and therefore improved affordability. For instance, the 2004 Barker Review¹² concluded that, to improve the housing market such that real house price inflation is limited to 1.1% per annum, <u>private</u> housebuilding starts in England should increase to 260,000 homes per annum. More recently, the House of Lords Select Committee on Economic Affairs¹³ concluded that, to have a moderating effect on house prices, at least 300,000 homes a year need to be built in England for the foreseeable future. The Redfern Review¹⁴ concluded that if the number of households in the UK were to grow at around 200,000 per year, net new supply of 300,000 dwellings per year over a decade could be expected to cut real house prices by around 5 percentage points (0.5 percentage points a year).

The distribution of these 300,000 homes to the markets in most need is clearly important. Direction is provided by Leunig and Overman¹⁵ who conclude that housing development should be focused on markets in which land values are highest, as houses are usually socially more valuable in high land-price areas. Data from Savills databases indicates that the value of residential development land that is fully serviced with infrastructure within the urban fringe of Cambridge is in excess of £2m per net developable acre, compared with values in most of the midlands and northern parts of England of between £300,000 and £800,000 per acre, albeit with higher values in the highest demand areas of these markets¹⁶. Given that land value across the corridor is above the national average, we can conclude that the corridor's share of the 300,000 homes should be proportionately high.

5.3.1. Meeting the Corridor's Share of National Housing Need

As noted in section 3.4, there is no definitive method for determining local housing need across the country. Adoption of the LPEG recommendations would go a long way towards filling the gap, but the method as proposed is unlikely to be reconcilable with national housing need of 300,000 homes per annum, for the reasons set out in section 3.4. Therefore, for the high level purposes of this project, we have used a high level indicative allocation of the 300,000 need figure to the local authorities within the corridor, with primary reference to affordability ratios, as a market signal of housing scarcity.

¹² Barker (2004). Review of Housing Supply. Delivering Stability: Securing our Future Housing Needs. HMSO, March 2014

¹³ House of Lords (2016). Building more homes. Select Committee on Economic Affairs. HL Paper 20, July 2016.

¹⁴ Redfern (2016). The Redfern Review into the decline of home ownership. November 2016

¹⁵ T. Leunig and H. Overman (2008). Spatial patterns of development and the British housing market. Oxford Review of Economic Policy, Volume 24, Number 1, 2008.

¹⁶These are indicative values, subject to variation by site location. They refer to land with planning permission for residential development (typically an outline consent), fully serviced with major infrastructure including spine roads, utilities, landscaping and non-residential uses, including infrastructure payments required by planning obligations and Community Infrastructure Levy. The values relate to land that is developable for residential use, this typically being significantly less than the full area of a large development site. Therefore these values are not directly comparable with the value of land in other uses.

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The starting point is shown in Figure 60, namely the latest SHMA OAN for each district as a proportion of existing stock, set against its house price to income ratio (2015 median house price to median income). As a reference point, the average house price to income ratio for England in 2015 was 7.6 and national housing need of 300,000 additional homes (see Section 3.4.1) is 1.3% of current stock, shown by the red dot.

In these high level terms, some locations in the corridor, those below and to the right of the dot on the chart, have a SHMA OAN that falls below a proportionate share of national need. By contrast in the very unaffordable and high employment growth market of Oxford, SHMA OAN is high at 2.4% of stock.

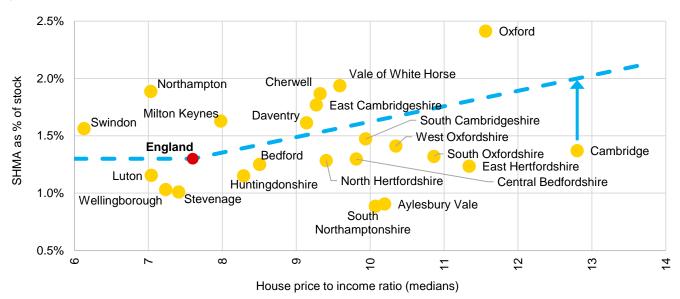


Figure 60 - SHMA need and 2015 house price to income ratios

Source: DCLG, SHMAs

Our allocation method is as follows:

- Given that the corridor is an area with above average land values and above average economic growth, the minimum level of housing need for all local authorities in the corridor is set at 1.3%.
- Where the local authority has an affordability ratio in excess of the England average of 7.6, a further uplift has been applied, in proportion to affordability, capped at 2.0% which applies to Cambridge as the least affordable market in the corridor. This is less than the 2.4% SHMA OAN for Oxford, suggesting that the cap could be set at a higher level. As further reference points for the 'allocated need' for Cambridge of 2.0% of stock per annum, Cambridge delivered 2.6% of stock in 2013/14, and has averaged 1.7% over the past three years. It is also close to the housing target adopted under the former Regional Spatial Strategy of 950 homes or 1.9% of existing stock per annum.



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SHMA need and the allocated or 'modelled' higher level of need for each district are shown in the table below. In total this increases need in the corridor to 23,205 dwellings per annum, equivalent to 1.7% of current stock each year.

Table 2 - Target setting summary across the corridor

	SHMA need as	SHMA dwellings	Modelled need	Modelled
	% of stock	per annum	as % of stock	dwellings pa
Bedford	1.2%	884	1.4%	1,006
Central Bedfordshire	1.3%	1,475	1.6%	1,817
Aylesbury Vale	0.9%	691	1.6%	1,259
Luton	1.2%	890	1.3%	1,002
Milton Keynes	1.6%	1,750	1.6%	1,750
Cambridge	1.4%	700	2.0%	1,022
East Cambridgeshire	1.8%	650	1.8%	650
Huntingdonshire	1.2%	850	1.4%	1,029
South Cambridgeshire	1.5%	950	1.6%	1,042
East Hertfordshire	1.2%	745	1.8%	1,088
North Hertfordshire	1.3%	720	1.5%	866
Stevenage	1.0%	365	1.3%	470
Daventry	1.6%	540	1.6%	540
Northampton	1.9%	1,775	1.9%	1,775
South Northamptonshire	0.9%	330	1.6%	608
Wellingborough	1.0%	350	1.3%	442
Cherwell	1.9%	1,140	1.9%	1,140
Oxford	2.4%	1,400	2.4%	1,400
South Oxfordshire	1.3%	775	1.7%	1,022
Vale of White Horse	1.9%	1,028	1.9%	1,028
West Oxfordshire	1.4%	660	1.7%	782
Swindon	1.6%	1,467	1.6%	1,467
CORRIDOR TOTAL	1.4%	20,135	1.7%	23,205

Source: SHMAs, Savills

5.3.2. Meeting Need from Land Constrained Markets

A second source of housing need above that being generated locally comes from locations across the rest of the wider London/South area where undersupply exists and is likely to continue. For example, in our 2016 planning research report ¹⁷ we described how London has adopted a minimum housing target that falls short of various measures of its need by between 7,000 and 20,000 homes per year. Our latest estimate ¹⁸ of likely delivery in London suggests that even this constrained target may be undershot by around 5,000 homes per year in the near future, increasing the gap. Furthermore, there is a more general shortfall between housing need and Local Plan targets elsewhere in the south of England, constrained by London's Green Belt and heritage designations.

¹⁷ http://pdf.euro.savills.co.uk/uk/residential---other/spotlight-planning-summer-2016.pdf (page 8-9)

¹⁸ Spotlight on London Mixed Use Development, Savills April 2016



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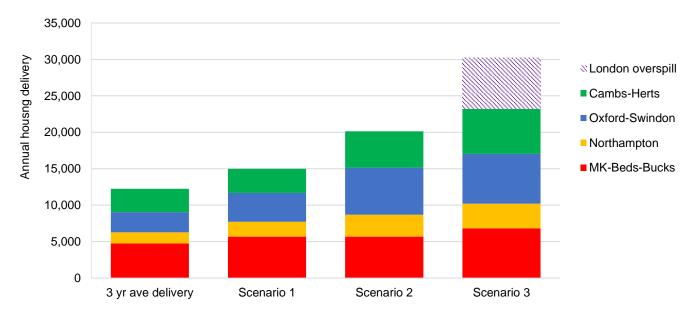
The corridor's relative lack of land constraints, when combined with transformational infrastructure investment, mean that it is arguably better placed than any other area within similar commuting distance of London to relieve the housing pressure on the capital.

Adding the minimum estimate of shortfall of 7,000 to the 23,200 calculated above gives a total annual housing need and demand figure for this scenario of 30,200 homes, equivalent to adding 2.2% of current stock each year. This is a very high level of delivery that would require new and additional approaches to delivery across the corridor. This is considered in more detail in section 6 of this report.

5.4. Scenario Growth Potential

Housing delivery volumes under these three scenarios are shown in Figure 61, compared with the downside risk of returning to historic delivery over the three years to March 2015. Over the 34 years from 2016 to 2050, the three scenarios represent housing delivery totals of 510,000, 680,000 and 1,020,000 additional homes respectively.

Figure 61 – Annual housing delivery scenarios by corridor sub-region



Source: Savills, DCLG

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The increase in housing delivery within each sub-region (excluding the London overspill in the transformational scenario) is set out in Figure 62, demonstrating that the scale of increase is greatest in the Oxford-Swindon sub-region, from a relatively low base, followed by the Cambridgeshire-Hertfordshire sub-region, with that increase skewed towards the Cambridge economic area. The increase in the Milton Keynes-Bedfordshire-Buckinghamshire sub-region is from a relatively high base, whilst the Northampton sub-region continues to take a share of growth.

8.000 ■3 yr ave delivery Scenario 1 ■ Scenario 2 Scenario 3 Annual housng delivery 7,000 6,000 5,000 4,000 3,000 2,000 1,000 0 Cambs-Herts MK-Beds-Bucks Northampton Oxford-Swindon London overspill

Figure 62 - Delivery scenarios compared, by sub-region

Source: Savills, DCLG

These three housing led scenarios have been aligned with the scenarios outlined by Cambridge Econometrics in the economics workstream of this project. We have derived population numbers from the three housing led scenarios, at local authority level, using average projected household headship rates from the ONS household projections. The Cambridge Econometrics economic scenarios are aligned with these population projections, as shown in Table 3.

In the transformational scenario, the economic projections and associated population numbers are aligned with the 23,000 additional homes per annum across the corridor, not the additional homes to meet need from outside the corridor, as there are so many options for how and therefore where the need could be met within the corridor. Relative to the baseline scenario, the incremental and transformational scenarios generate an additional 22% and 44% of GVA respectively by 2050.

Table 3 - Economic growth by scenario

	Population			Employment			GVA		
Scenario	2014 (000s)	2050 (000s)	2014-50 (%pa)	2014 (000s)	2050 (000s)	2014-50 (%pa)	2014 (£2011m)	2050 (£2011m)	2014-50 (%pa)
1. Baseline	3,341	4,327	0.7	1,833	2,168	0.5	90,484	176,105	1.9
2. Incremental	3,341	4,518	0.8	1,833	2,553	0.9	90,484	214,060	2.4
3. Transformational	3,341	4,892	1.1	1,833	2,937	1.3	90,484	253,635	2.9

Source: Cambridge Econometrics

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6. Unlocking Growth

6.1. Leadership and Strategic Spatial Planning

The MetroDynamics engagement with developers, within the finance workstream of this project, has indicated significant barriers to development relating to governance and leadership, across functioning economic areas. This relates particularly to alignment of objectives amongst all relevant parties in the public and private sectors, consistent with the strategic plan for growth. Key parties in this alignment include Highways England, Network Rail and the utility companies.

The leadership message is in part echoed by the SQW case study of growth in the Cambridge economic area, via a succession of bodies drawn from both the public and private sectors, promoting and enabling a growth vision across the two local authorities.

We can also conclude from these findings that, to be effective in delivering growth, the strategic plan needs to extend across all local government areas within the functioning economic area, with consistency over time. It should consider and plan for the optimum spatial relationships amongst housing, employment and transport investment, to facilitate sustainable development. The role of Green Belt in achieving sustainable development will inevitably be part of that spatial planning. Most if not all of the plan making issues identified elsewhere in this report would be solved by growth orientated leadership and spatial planning across functioning economic areas.

6.2. Site Viability, Deliverability and Build Out Rates

Much of the housing land pipeline across the corridor is within large sites which require significant investment in infrastructure in terms of both on site infrastructure (spine and service roads, utilities, schools and other social infrastructure) and off-site transport infrastructure. Large urban mixed use sites tend to have additional infrastructure complexity.

These sites present challenges for both public and private sector parties, in finding a way to deliver a financially viable scheme that can be funded and built out quickly, while meeting policy objectives including provision of affordable housing. The need for balance amongst planning obligations and levies, while generating competitive returns to both developer and landowner, is set out in a Savills report, sponsored by the Home Builders Federation¹⁹.

On a large site, the development process can be regarded in two parts: firstly the master developer role of obtaining outline planning consent, design and land enabling with infrastructure; and secondly the construction and sale of the homes. Housebuilders, particularly SMEs, require a flow of serviced developable land to feed their businesses. A land pipeline of large unserviced land will not increase housing supply until it has gone through the master development process.

Both stages are capital intensive, but particularly the master developer stage, where the viability and deliverability of a site is dependent on generating a cash flow that provides a competitive return on capital employed. This can be challenging, given the need for substantial investment in infrastructure at the early stages of site development.

¹⁹ CIL – Getting it right. Savills January 2014.

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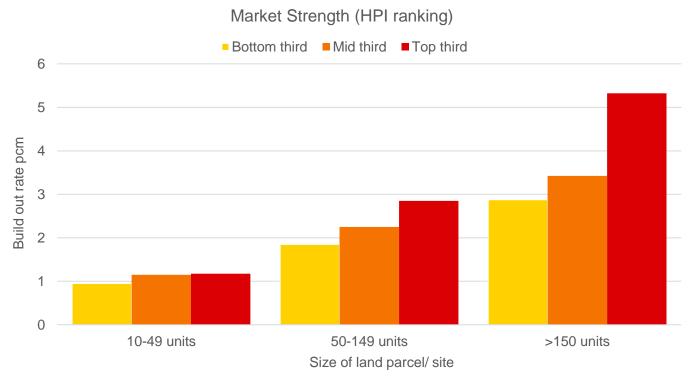
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Market capacity to absorb new housing stock is highly relevant here, as developer cashflow depends on rates of market absorption. Housebuilders construct homes as fast as they can be sold. Analysis of NHBC data by Hometrack²⁰ shows that build out rates on larger housebuilder sites and/or land parcels (of more than 150 homes) are significantly higher in the strongest one third of markets across England than in other markets (**Figure 63**).

The NHBC data relates to serviced parcels of land where a housebuilder has started on site. Large sites of more than, say, 500 homes capacity, will typically be built out in a number of land parcels, potentially over several phases. Sites in locations with potential for high sales rates will have capacity for multiple sales outlets, on separate land parcels, building our concurrently. Therefore, the differential in large site delivery speed between stronger and weaker markets is very much greater than the 85% shown in the chart.

Using the conservative assumption that twice as many sales outlets can be maintained on large sites in stronger markets than in weaker markets, large site delivery speed is more than three times higher in the stronger markets. Therefore, it is in these stronger markets, displaying the highest house price inflation and most stretched affordability, where large sites can be brought forward quickly to accelerate housing supply.

Figure 63 - Average build out rate by size of land parcel and market strength



Source: Hometrack analysis of NHBC data

The Hometrack analysis is based on NHBC starts and completions data across all local authorities in England, ranking local authorities by market strength, defined by total house price inflation over the five years to mid 2016, according to Hometrack house price indices.



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This also means that, in general, large sites in stronger markets, on which cashflow from home sales is likely to be received more quickly, are more likely to be deliverable than large sites in weaker markets. In all markets, a high number of smaller sites, dispersed geographically across the market, are an important component of delivery, but inevitably a high land supply does require a proportion of that supply to be in larger sites.

An additional consideration is the range of occupiers whose need is met by the new homes on a large site. The more diverse the range of product type, tenure and pricing, matched to the range of need in the market, the more rapidly the homes will be absorbed and occupied, as noted in a Savills report published in February 2016²¹.

There is a range of measures that can be taken to improve cashflow and generate a return on capital that makes a scheme viable and deliverable. These include:

- deferred land payments or joint venture structures with landowners;
- third party funding of early infrastructure to improve cashflow, using government funding programmes such as the Home Building Fund;
- sales of Section 106 affordable housing to housing associations, including a significant early down payment, albeit that
 this is a less effective option under current affordable housing policy than under previous programmes which provided
 more funding for sub-market rental homes; and
- in the right locations, forward funding of build to rent residential blocks and commercial buildings by institutional investors, providing early cashflow to improve return on capital. On large sites connected to centres of employment, Build to Rent has significant potential to accelerate delivery without displacing homes built for market sale.

Government can influence the effectiveness all of these measures to accelerate the delivery of large sites, albeit that its influence on land payments is limited to publicly owned land.

6.3. Other Constraints to Delivery

Much has been written in recent years on constraints to housing delivery and this report does not extend to a full account of all constraints. Our focus is on issues relating to the principle themes of the project, being the spatial alignment of jobs, homes and transport and development delivery models that add to existing capacity. Nevertheless, there are many other factors that are relevant to housing delivery capacity nationally and in the corridor. High amongst the priorities for intervention, much of which is already being addressed are:

- speeding up the planning process from application to start on site, to include the resource available within local planning authorities and appropriate use of pre-commencement conditions;
- an increase in the number of small and medium sized (SME) housebuilders, including custom builders, facilitated partly through the provision of land and finance suited to SMEs.
- provision of riskier project backed development finance (as provided by the Home Building Fund) that is not available
 on commercially viable terms in the market;
- an increase in construction capacity across the sector, to include expansion of the skilled construction workforce and
 creation of an environment in which large scale investment in advanced off-site construction methods can be made
 and sustained.

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 $^{^{\}rm 21}$ The impact of new housing measures on development. Savills, February 2016



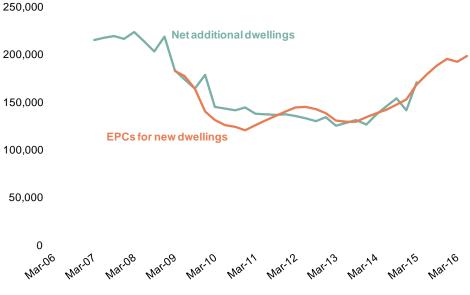
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6.4. Adding to Private Sector Led Delivery

Housing delivery has increased significantly in recent years, to the point where net additional dwellings across all tenures, including conversions, reached some 171,000 homes in 2014/15. The leading indicator of Energy Performance Certificates issued on new dwellings suggests that the 2015/16 figure, when it is published in mid November, could be approaching the Government ambition of 200,000 additional homes per annum, this being one fifth of the one million homes ambition during the current Parliament²².

Private sector development has underpinned the significant increases in housing delivery since 2012 and it will continue to play a pivotal role in further increases. Large site delivery is significantly faster in stronger markets, so strategic planning should prioritise such sites in strong markets, well connected to employment markets, as this is where there is most market capacity for the private sector to build out quickly. In such locations, Build to Rent can significantly accelerate delivery on large sites, without displacing supply for market sale.

Figure 64 – Net additional dwellings in England and Energy Performance Certificates on new dwellings



Source: DCLG

²² Since this report was completed, new DCLG data show that housing delivery in England was 189,650 net additional dwellings in 2015/16, confirming that delivery has increased significantly towards the Government's ambition of one million homes during the Parliament.

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Nevertheless, to reach a level of housing supply that meets national need of 300,000 additional homes per annum will need additional delivery models that are complementary to private sector led delivery. High levels of housing delivery in the past have been driven by the private sector operating in a land market relatively unconstrained by planning control (the 1930s) and by the public sector adding significant numbers to private sector delivery (the 1950s to 1970s). The current system, with heavy reliance on private sector led delivery in a constrained planning environment, is more restrictive than the system prevailing in both of these periods.

Local Authorities 400,000 Housing Associations 350,000 Private Enterprise 300,000 Completions 250,000 200,000 150,000 100,000 50.000 932/36 938/39 1960 1963 1966 1969 926/27 1954 1957 1972 1975 1978 1981 1987 1990 1996 1999 941/42

Figure 65 - Housing Completions by Sector, England

Source: DCLG, Webber

To reach the levels of housing supply envisaged in our transformational scenario for the corridor, with 23,000 additional homes per annum to meet indigenous need plus a further 7,000 homes per annum to meet need from connected economies, principally London, will need additional models of delivery. The Government's Accelerated Construction Scheme (ACS) is an example of an additional delivery mechanism, in that the public sector controls the enabling and release of land to the house building and construction market, underwriting market risk so that developers will build out more quickly than they would if those decisions were based on an assessment of market capacity and risk.

The additionality of Accelerated Construction Scheme activity on public land will be maximised if it does not displace private sector led activity. If these high supply sites are competing directly for the same buyers as private sector led sites then the private sites will inevitably reduce their build out rates to contain market risk, as a rational market response. Therefore ACS type activity will be most effective in adding to housing supply if it is focused on markets with little or no private sector supply. This lends itself to a focus on new settlements, including garden towns and villages.

This is effectively the way in which the New Towns of Milton Keynes and Northampton were established during the 1960s to 1980s, as noted in the SQW case study. This demonstrates the co-ordinating role that the New Town Development Corporations played in the rapid development of these new places. More recently, the effectiveness of the development corporation model has been demonstrated by the Mayoral Development Corporation's role in the rapid development of the Olympic legacy site at Stratford. Urban Development Corporations are potentially a very significant part of the delivery of transformational growth in the corridor.

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7. Unlocking and Accelerating Development with Transport Investment

The guiding principle in our analysis is that, to unlock additional economic growth in the corridor, new homes should be connected to the significant employment growth locations in the corridor, via a combination of proximity and transport infrastructure. Both the incremental and transformational scenarios rely on the development of additional sites and the accelerated delivery of new and existing sites. Aligning transport and sites is crucial to both outcomes. As evidence of this, high rates of sale of new homes can be observed on large sites that have easy access to large employment markets (e.g. Cambridge southern fringe, Milton Keynes) and where there is good direct rail access to London (e.g. Aylesbury).

7.1. Unlocking Additional Site Capacity Relative to Housing Need

We have identified some 300 large (over 250 unit) housing development sites across the corridor, ranging from currently under construction, through various stages of planning, to being promoted for residential use. In total these sites have potential capacity for more than 400,000 new homes, with some 14% of these sites currently under construction. A large proportion, some 43% of this capacity, is not yet allocated in a Local Plan, with a further 21% allocated but not yet subject to a planning application. These categories of site are most likely to require investment in transport infrastructure for them to be brought forward through the planning system and built out for housing.

Table 4 - Large housing site capacity within the corridor

	Oxford- Swindon	MK-Beds- Bucks	Northampton	Cambs-Herts	Total	%
Under Construction	9,217	25,944	4,803	17,866	57,830	14%
Permission	4,430	12,738	10,805	8,156	36,129	9%
Application	19,390	12,766	904	18,910	51,970	13%
Allocation	28,802	9,155	13,407	33,679	85,043	21%
Promotion	71,854	67,523	2,470	29,837	171,684	43%
Total	133,693	128,126	32,389	108,448	402,656	100%
%	33%	32%	8%	27%	100%	

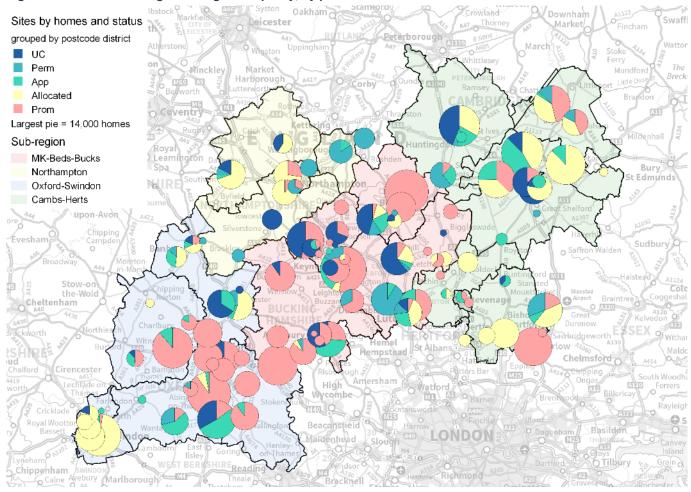
Source: Savills

The location of this large site capacity is shown in Figure 66, showing a significant variation in the status of sites across the corridor, a point emphasised by the analysis of years' supply of land in Figure 67. This shows that the large site capacity of 400,000 homes is equivalent to over 17 years of indigenous housing need under our highest growth scenario of 23,000 additional homes per annum across the corridor, before considering the imported need of 7,000 homes per annum which would mean that these large sites represent 13 years of housing supply. Significant areas of land could be added to this pipeline, as and when required by ongoing consumption of the land pipeline and increase in planned growth.

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Source: Savills

Our sub-regional analysis of years' supply, as shown in Figure 67, excludes the imported annual need of 7,000 homes, as we have reserved judgment on where in the corridor this need would be best met. On this basis, sites currently at some stage in the planning system, i.e., all categories excluding 'promotion', account for 10 years of need across the corridor. Given the importance of larger sites to housing delivery and that many of the adopted and emerging local plans in the corridor run to 2031, 2033 or 2036, it is clear that more housing land will need to be allocated if the most ambitious growth rate is to be achieved and economic growth maximised.

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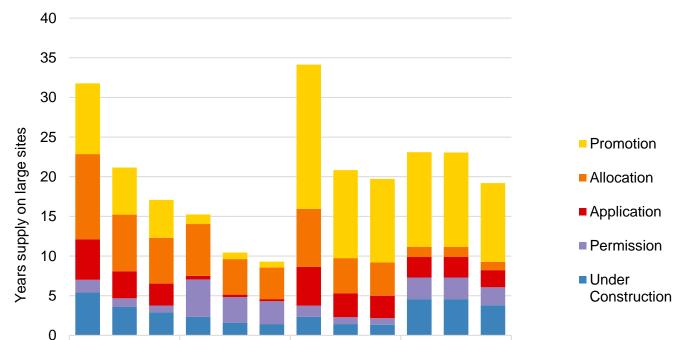


Figure 67 - Years of supply on large (250+ unit) sites relative to scenario delivery

Source: Savills

Scenario 2

Cambs-Herts

Scenario 1

Scenario 3

Scenario 2

Northampton

Scenario 1

Scenario 3

Scenario 1

The chart and map also shows differences in provision of these larger sites across the sub-regions of the corridor, noting that this assessment excludes sites of less than 250 homes. The most immediate land shortfall is in the Oxford-Swindon sub-region where there is less than two years' supply (measured against scenario 3) under construction or with permission on large sites, albeit that there are 2.8 years' worth (almost 20,000 units) at the application stage. Even when measured against current delivery, there are significantly fewer years' supply within large sites, either under construction or with permission, in the Oxford-Swindon area than in the other parts of the Corridor. In all areas there is a significant longer term pipeline of large pre-planning application sites that are either allocated in Local Plans or being promoted for future allocation. Investment in transport infrastructure will be required to bring forward these sites.

Scenario 2

Scenario 1

Scenario

Scenario

Oxford-Swindon MK-Beds-Bucks

As noted in section 5.4, the scale of increase in housing delivery required in the incremental scenario is highest in the Oxford-Swindon sub-region, most notably in the Oxford economic area. The scale of increase required in the transformational scenario is high across the corridor, with most growth required in the Oxford and Cambridge economic areas. As noted above, the pipeline of large sites is the least progressed through the planning and development process in the Oxford-Swindon sub-region and that, consequently, planning for and funding of the associated transport infrastructure is likely to be less progressed. Government interventions will be effective across the corridor, but are likely to have a particularly high impact on delivery in the Oxford economic area. Interventions that will have the most immediate impact will be related to large sites that are either under construction or close to construction, where the transport improvement will increase market capacity and accelerate delivery.

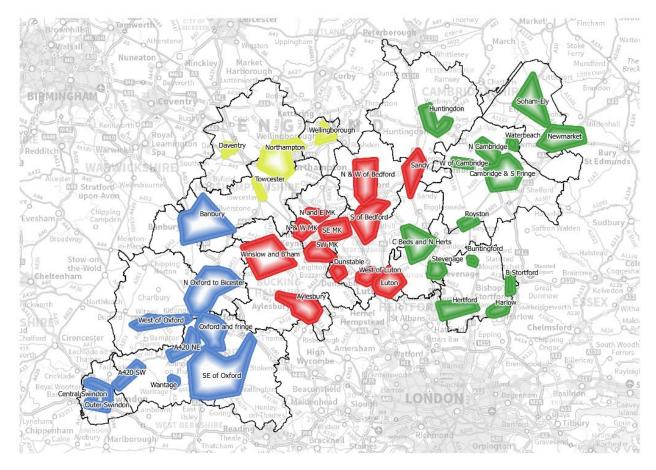
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7.2. Transport Investment to Unlock Site Capacity in Priority Areas

We have taken a high level view of the interaction between transport investment and large sites, within sub-market areas that contain the large sites identified. The indicative extent of these areas is shown in Figure 68. By definition, these areas include significant housing capacity within at least one large site and in most cases significant workspace capacity. The area boundaries of these sub-markets are indicative and, by definition, imprecise.

Figure 68 – Indicative extent of sub-market areas



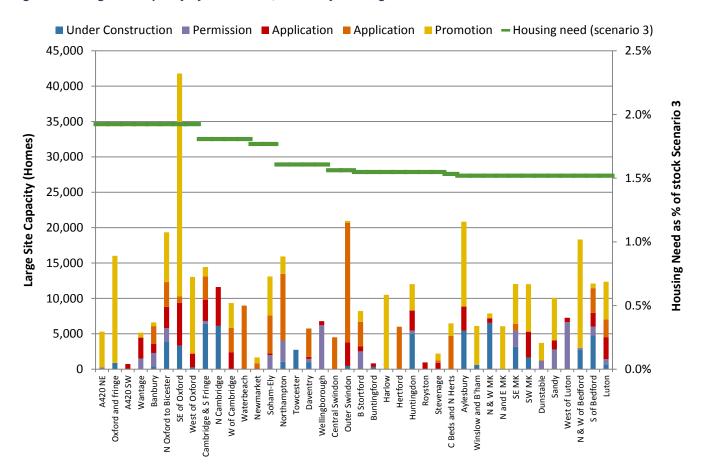
Source: Savills

Almost all of the large site housing capacity of 400,000 homes falls within the sub-market areas, as shown in Table 5 on page 89. The large site capacity within each sub-market area is shown in Figure 69, together with a ranking of areas by housing need under the transformational Scenario 3 (see Table 2), with the sub-markets around the Oxford and Cambridge urban areas grouped together to reflect the levels of need in the locations that are in close proximity to those cities. This chart emphasises the priority to deliver housing to meet the above average levels of need throughout the corridor, and the extremely high priority to deliver housing around Oxford and Cambridge.

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Figure 69 - Large site capacity by sub-market, ranked by housing need



Source: Savills

In a parallel workstream for NIC, Arup has assessed more than 200 transport schemes across the corridor, to include committed, planned and potential schemes that improve connectivity and relieve congestion. Each of the transport schemes has been rated by Savills and Arup for its potential impact on housing delivery, given its proximity to housing sites, known congestion issues and the stated impact of the schemes in published transport strategy documents. This is a very high level exercise which does not extend to scheme specific and site specific evaluation of linkages. Its purpose is to generate a high level view of transport investment priorities across the corridor. Therefore we have aggregated housing capacity across all sites within each sub market area.



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This aggregated analysis is shown in Table 5, identifying the indicative range of impact on housing delivery of all transport schemes and the identified large site housing capacity within each sub-market area. Some of the larger transport schemes appear in the table more than once, as they cross a number of sub-markets. All but three of the sub-market areas contain at least one transport scheme. Many of the transport schemes are explicitly linked to the unlocking of housing capacity, whilst some transport schemes have an indirect positive impact on housing delivery. For instance, investment in HS2 will relieve capacity constraints on the West Coast Mainline which will unlock housing and workspace capacity in central Milton Keynes, in line with plans to intensify the city centre, enhancing delivery capacity in other parts of the city.

Table 5 - Large site housing capacity and delivery impact of investment in transport schemes

	arge site flousi		Transport Schemes by Impact on Housing Delivery										
		Under Construction	Permission	Application	Allocation	Promotion	Total	High	Mid- High	Mid	Low- Mid	Low	Total
	B Stortford		2,531	685	3,500	1,500	8,216	2					2
	Buntingford	318		509			827				1		1
	C Beds and N Herts				4,700	1,780	6,480					1	1
	Cambridge & S	6,427	381	3,023	3,303	1,300	14,434	9	22	15	3	3	52
	Fringe Harlow	- /		-,-	-,	10,500	10,500	1					1
	Hertford				6,000	10,500	6,000		2				2
	Huntingdon	5,015	438	2,826	6,000	3,750	12,029	3					3
Cambs-	N Cambridge	6,106	430	5,504		3,730	11,610	6		2		1	9
Herts	Newmarket	6,106		5,504	851	800	1,651	1				1	2
	Royston			961	851	800	961			2	2	2	6
	Soham-Ely		2.002	251	E 20E	E 40E	13,114		1	3	1	1	6
	Stevenage		2,003	886	5,365 360	5,495 950	2,196		2	3	'	- '	2
	W of Cambridge			2,355	3,500	3,500	9,355	2		3	1		6
				2,355		3,500		4		2	1		6
	Waterbeach Outside zones				9,000		9,000	4					ь
	Sub-Total	17,866	5,353	17,000	35,579	29,575	105,373	28	27	27	8	9	99
	Aylesbury	5,450	5,353		35,579	·	20,835	20	3	4	0	1	
	Dunstable	5,450	1,221	3,404		11,981 2,500			3	4		-	8
	Luton	688		2.407	2.507		3,721	-	_			2	_
			736	3,107	2,507	5,327	12,365	1	2	_			5
	N & W MK	6,550	054	646		678	7,874		4	3			7
	N & W of Bedford	2,775	251			15,300	18,326						
	N and E MK	4 774	4.000	4.000	0.470	6,082	6,082					_	
MK-Beds- Bucks	S of Bedford	4,771	1,226	1,986	3,470	651 6,040	12,104	1		1		3	4 2
Ducks	Sandy SE MK	0.455	2,803	1,250	070		10,093 12,041	1				4	
	SW MK	3,155 1,653	2,304	3,659	978	5,604		1	4	4		1	6
	West of Luton	1,653	6,650	3,659		6,699	12,011	2	1	3		1	5
		000	0,000	624		F 505	7,274 6,125		2	_			
	Winslow and B'ham	600 302	350		300	5,525 1,398		2	1	3		1	7
	Outside zones Sub-Total	25,944	15,541	14,676	7,255	67,785	2,350 131,201	8	13	18		9	48
	Daventry	1,000	452	304	4,000	67,765	5,756	1	13	10	1	1	3
	Northampton	1,000	3,012	304	9,407	2,470	15,942	2	5	2	11	11	31
	Towcester	2,750	3,012		9,407	2,470	2,750		3		- ' '	1	1
Northampton		2,750	6 200	600			6,800		1	1	2	'	4
	Wellingborough Outside zones		6,200	600			0,000		<u> </u>	- '-			4
	Sub-Total	4,803	9,664	904	13,407	2,470	31,248	3	6	3	14	13	39
	A420 NE	7,003	280	334	13,407	5,032	5,312	2	1		'-	3	3
	A420 NE A420 SW		200	727		3,032	727	1	 	 			1
	Banbury	412	1,891	1,302	2,500	500	6,605	<u>'</u>		2		1	3
	Central Swindon	712	1,001	1,002	4,500	530	4,500	1				-	1
	N Oxford to Bicester	3,905	1,900	3,008	3,500	7,046	19,359	4	4	6		1	15
	Outer Swindon	454	1,000	3,353	16,900	250	20,957			ا ا		-	.5
Swindon	Oxford and fringe	894		3,030	.5,530	15,132	16,026	7	8	11	1	5	32
	SE of Oxford	3,302		6,079	902	31,500	41,783	1	3	7	3	4	18
	Wantage	0,002	1,500	2,957	332	700	5,157	3	ب ا	<u> </u>			3
	West of Oxford	250	1,500	1,964		10,816	13,030	2	3	 	1		6
	Outside zones	250		1,504	500	878	1,378		3	 	 '		
	Sub-Total	9,217	5,571	19,390	28,802	71,854	134,834	21	19	26	5	11	82
Total	Jub-10tai	57,830	36,129	51,970	85,043	171,684	402,656	60	65	74	27	42	268

Source: Savills, Arup

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This analysis is graphically represented in Figure 70, showing the large site capacity in each sub-market, retaining the priority ranking in Figure 69. It also shows the extent to which high impact transport schemes are in place or planned for the areas in which there is a significant supply of large sites that need to be enabled with investment in transport infrastructure.

30 20 10 0 10,000 20,000 30,000 40,000 50,000 **Transport Large Sites** A420 NE A420 NE schemes by Capacity Oxford and fringe Oxford and fringe A420 SW A420 SW impact (Homes) Wantage Wantage Banbury on housing Banbury N Oxford to Bicester N Oxford to Bicester SE of Oxford Sub-markets ranked by transformational housing SE of Oxford West of Oxford West of Oxford Cambridge & S Fringe Cambridge & S Fringe High N Cambridge N Cambridge W of Cambridge W of Cambridge Under Waterbeach Waterbeach Construction Newmarket Newmarket ■ Mid-Soham-Ely Soham-Ely Permission Northampton High Northampton Towcester Towcester Daventry Daventry Wellingborough Wellingborough Application Mid Central Swindon Central Swindon Outer Swindon Outer Swindon B Stortford Application Buntingford Buntingford Harlow Low-Harlow Hertford Hertford Mid Promotion Huntingdon Huntingdon Royston Royston Stevenage Stevenage Low C Beds and N Herts C Beds and N Herts Aylesbury Aylesbury Winslow and B'ham N & W MK N & W MK N and E MK N and E MK SE MK SE MK SW MK SW MK Dunstable Dunstable Sandy Sandy West of Luton West of Luton N & W of Bedford N & W of Bedford S of Bedford S of Bedford Luton

Figure 70 - Range of impact on housing delivery amongst transport schemes

Source: Savills, Arup

This analysis cannot be a thorough examination of the links between transport and individual site delivery, which would involve considerable detailed work. Nevertheless, this high level analysis indicates that:

Luton

- A high proportion (47%) of the transport schemes are likely to have a high or mid-high impact on housing delivery.
- There are many transport improvements with a high or mid high housing delivery impact around the priority areas of Oxford and Cambridge.
- There are some sub-markets that include transport schemes with a potentially high impact on housing delivery, where
 there is potential to look in more detail at whether additional housing land could be unlocked, should there be market
 capacity to do this without displacing planned delivery on the sites already identified. The most notable of these relate
 to East-West road and rail schemes, as discussed further below.



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7.3. East-West Road and Rail Connectivity

It is clear from the other workstreams that the case for enhancing East-West transport connectivity to enhance agglomeration across the corridor is difficult to prove. The Cambridge Econometrics/ SQW case studies note that this is largely due to the lack of precedents for joining up the unique economies and world class institutions at either end of the corridor. However, the Arup analysis in the parallel transport workstream demonstrates the role that completion of East-West Rail and the East-West Expressway can play in enabling local growth across the corridor.

Amongst the sub-market areas, the large sites at Aylesbury, SE Milton Keynes and SW Milton Keynes will benefit significantly from the increased connectivity offered by East-West Rail. In these three areas combined there are over 22,000 homes in the planning system and a further 24,000 being promoted for development. Not all are contingent on the new rail link but it could be an important factor in delivering the homes more quickly than they would otherwise come forward.

The new transport intersections created by East-West road and rail will generate new opportunities for housing and workspace growth, to include expansion of existing settlements and the creation of new towns and villages. Potential growth locations include:

- the intersection of East-West Rail with the Chiltern line, the M1, the Midlands Main Line, the A1 and the East Coast Main Line:
- the three options for the Milton Keynes to Oxford section of the East-West Expressway, which have the potential to unlock growth in a wide range of locations, that could include expansion of Buckingham and Bicester; growth at Winslow; further growth at Aylesbury plus growth around the rail link at Haddenham.

In all cases, transport connectivity and capacity into local centres of employment is crucial, whilst connectivity to London will accelerate delivery of housing and workspace, recognising that the productivity of the corridor is enhanced by its economic links to the capital.

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8. Appendix A – Detailed House Price and Affordability Data

The four charts on the following pages show how average values in the corridor have changed since their pre-crisis peaks and how transaction volumes have changed since their pre-crisis average. Although average values are higher than their pre-crisis levels in all corridor authorities, transaction volumes remain below their previous levels. Transaction levels in Oxford are just 60% of the pre-crisis average, reflecting the extreme affordability constraints within the city.

190% 170% North Hertfordshire 150% South Prices versus peak Stevenage Cambridgeshire East Hertfordshire 130% East Cambridgeshire Cambridgeshire Huntingdonshire 110% 90% 70% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% Transactions versus pre-crunch average

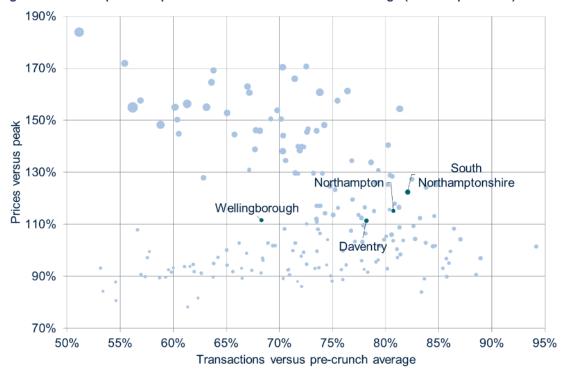
Figure 71 - House prices vs peak and transactions vs 2005-07 average (Cambs-Herts)

Source: Land Registry



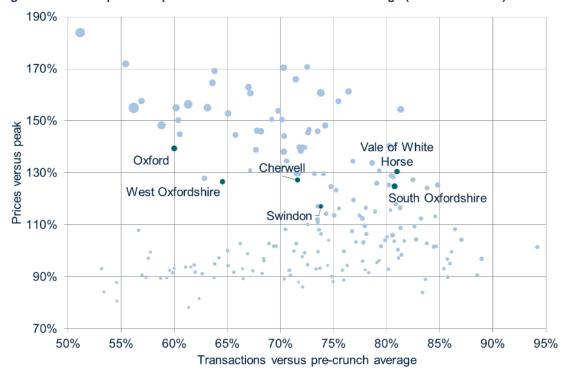


Figure 72 - House prices vs peak and transactions vs 2005-07 average (Northamptonshire)



Source: Land Registry

Figure 73 – House prices vs peak and transactions vs 2005-07 average (Oxford-Swindon)

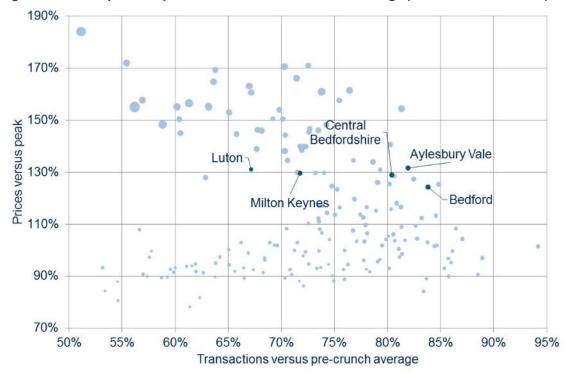


Source: Land Registry

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Figure 74 – House prices vs peak and transactions vs 2005-07 average (MK-Beds-Bucks cluster)



Source: Land Registry

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9. Appendix B – Local Level Planning Analysis

Table 6 - Target setting summary across the corridor

5 5	illiary doroco t						
Local Authority	2012 Hhd projections	LPEG Projections	Savills adjusted LPEG projections	3 year average delivery	delivery (since	SHMA	Local Plan Target
Bedford	894	1,073	1,073	827	1,000	884	907
Central Bedfordshire	1,648	2,060	2,142	1,250	1,670	1,475	718
Luton	1,119	1,399	1,455	243	560	890	310
Milton Keynes	1,606	2,007	2,088	1,317	2,340	1,750	1,750
Aylesbury Vale	984	1,230	1,279	1,113	1,420	691	780
Cambridge	226	282	339	833	1,300	700	735
East Cambridgeshire	594	712	712	213	740	650	575
Huntingdonshire	750	900	900	540	880	850	560
South Cambridgeshire	919	1,149	1,195	700	1,340	950	1,176
North Hertfordshire	697	872	906	243	690	720	533
Stevenage	383	479	498	137	390	365	265
Daventry	301	361	361	243	380	540	388
Northampton	1,148	1,377	1,377	730	1,780	1,775	1,431
South Northamptonshire	312	390	437	300	570	330	501
Cherwell	573	716	802	567	950	1,140	1,142
Oxford	310	387	495	183	800	1,400	400
South Oxfordshire	406	507	568	533	610	775	547
Vale of White Horse	402	502	522	567	820	1,028	383
West Oxfordshire	438	548	570	290	840	660	453
Wellingborough	283	340	340	253	450	350	350
Swindon	1,289	1,546	1,546	630	2,330	1,467	1,467
East Hertfordshire	820	1,025	1,147	537	810	745	555
Corridor	16,099	19,861	20,752	12,250	22,670	20,135	15.926

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Table 1 - Planning summary across the corridor

Local Authority	Plan type	Plan	Planning stage	Second Post-NPPF	Plan Dates	
,			gg	Stage		
Bedford	Pre-NPPF	Bedford Development Framework(2008)	Initial Preparation		2008-2021	
Central Bedfordshire	Pre-NPPF	Central Bedfordshire Plan (2009)	Initial Preparation		2015-2035	
Luton	Pre-NPPF	Luton Local Plan(2005)	Proposed Submission		2011-2031	
Milton Keynes	Post NPPF	Milton Keynes Core Strategy (2013)	Adopted	Drafting	2011-2031	
Aylesbury Vale	Pre-NPPF	Aylesbury Vale District Plan(2004)	Drafting		2013-2033	
Wycombe	Pre-NPPF	Wycombe Core Strategy(2008)	Drafting		2013-2033	
Cambridge	Pre-NPPF	Cambridge Local Plan (2006)	Examination		2011-2031	
East Cambridgeshire	Post NPPF	East Cambridgeshire Local Plan (2015)	Adoption		2011-2031	
Fenland	Post	Fenland Local Plan (2014)	Adoption		2011-2031	
Huntingdonshire	Pre-NPPF	Huntingdonshire Core Strategy (2009)	Initial Preparation		2016-2036	
South Cambridgeshire	Pre-NPPE	South Cambridgeshire Core Strategy(2007)	Proposed Submission		2011-2031	
North Hertfordshire		North Hertfordshire Local Plan(1996)	Drafting		2011-2031	
Stevenage		Stevenage District Plan(2004)	Proposed Submission		2011-2031	
Daventry		West Northamptonshire Joint Core Strategy (2014)	Adopted	Initial Preparation	2011-2031	
Northampton	Post	West Northamptonshire Joint Core Strategy (2014)	Adopted	Initial Preparation	2011-2031	
South Northamptonshire		West Northamptonshire Joint Core Strategy (2014)	Adopted	Initial Preparation	2011-2031	
Cherwell	Post NPPF	Cherwell Local Plan (2015)	Adoption		2011-2031	
Oxford	Pre-NPPF	Oxford Core Strategy (2011)	Initial Preparation		2016-2036	
South Oxfordshire	Post NPPF	South Oxfordshire Core Strategy (2012)	Adoption		2011-2031	
Vale of White Horse	Pre-NPPF	Vale of White Horse Local Plan (2005)	Examination		2011-2031	
West Oxfordshire	Pre-NPPF	West Oxfordshire Local Plan (2011)	Examination		2011-2031	
Forest Heath		Forest Heath Core Strategy (2010)	Drafting		2011-2031	
East Northamptonshire		North Northamptonshire Joint Core Strategy (2016)	Adoption		2011-2031	
Corby	Post	North Northamptonshire Joint Core Strategy (2016)	Adoption		2011-2031	
Kettering	Post	North Northamptonshire Joint Core Strategy (2016)	Adoption		2011-2031	
Wellingborough	Post	North Northamptonshire Joint Core Strategy(2016)	Adoption		2011-2031	
Swindon		Swindon Borough Local Plan(2015)	Adoption		2006-2026	

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10. Appendix C – Office PMAs

10.1. Cambridge PMA

The overall picture and trend for the Cambridge PMA show decreasing supply, falling vacancy rates and rising rents. The majority of the office stock is 3 star and below. There is a higher proportion of large high quality offices compared to the other principles settlements in the corridor.

There is over 8.5 million sq ft of office space in the Cambridge PMA, with a further 240,000 sq ft under construction. The average rent per annum achieved in the area is currently £21.47 /sq ft, up from on five year average of £19.93. The vacancy rate is currently 2.6%, below its 3.9% rate five year average. The availability rate is 5.0%, below its 6.0% five year average. Stock availability is currently just over 400,000 sq ft, below its five year average of over 500,000 sq ft. Available stock spends 7.6 months on the market compared to a five year average of 13.4 months.

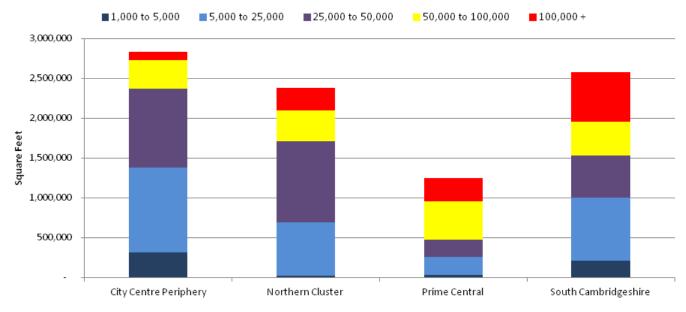
Figure 75 - Sub markets in Cambridge PMA





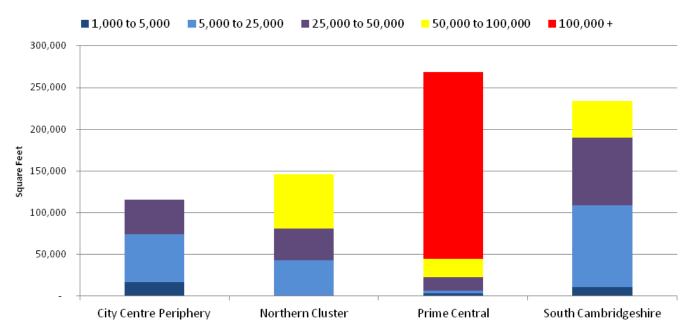


Figure 76 - Total office stock by submarket and size (sq ft) in Cambridge PMA



Source: CoStar, Savills

Figure 77 - Total vacant office stock by submarket and size (sq ft) in Cambridge PMA



Source: CoStar, Savills

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10.2. M11 - A10 Harlow PMA

The overall picture and trend for the M11 – A10 Harlow PMA show decreasing supply, falling vacancy rates and marginally rising rents.

There is over 3 million sq ft of office space in the M11 – A10 Harlow PMA, with a further 180,000 sq ft under construction, below its five year average. The average rent per annum achieved in the area is currently £16.00 /sq ft, up from on five year average of £15.33. The vacancy rate is currently 6.4%, below its 8.3% five year average. The availability rate is 12.6%, above its 12.0% five year average. Stock availability is currently just over 400,000 sq ft, marginally above its five year average. Available stock spends 17.6 months on the market compared to a five year average of 17.6 months.

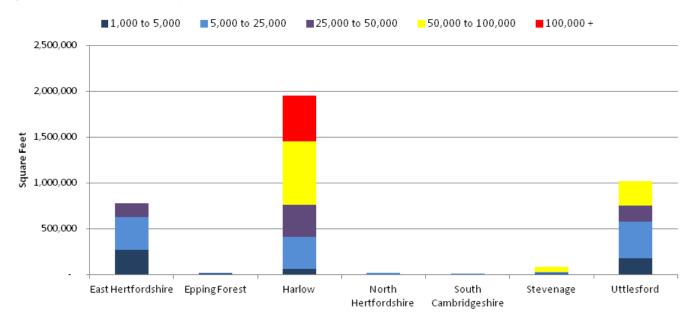
Figure 78 - Sub markets in M11 - A10 Harlow PMA



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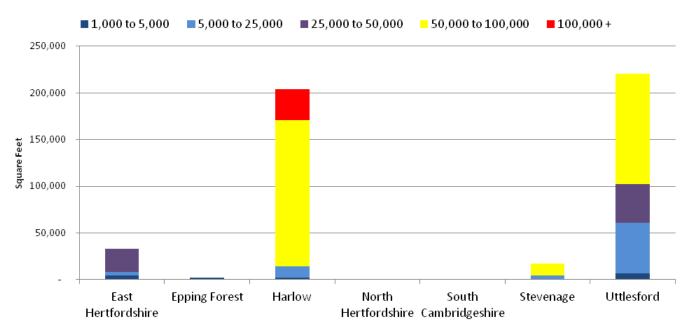


Figure 79 - Total office stock by submarket and size (sq ft) in M11-A10 Harlow PMA



Source: CoStar, Savills

Figure 80 - Total vacant office stock by submarket and size (sq ft) in M11-A10 Harlow PMA



Source: CoStar, Savills

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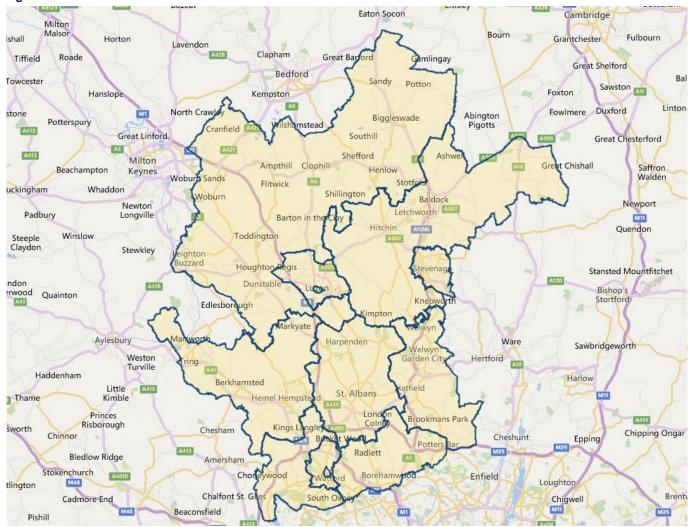


10.3. M1 A1M St Albans Hemel PMA

The overall picture and trend for the M1 A1M St Albans Hemel PMA show significantly decreasing supply, falling vacancy rates and rising rents. The majority of the office stock is 3 star and below, but there is a significant proportion of large high quality offices compared to the other principles settlements in the corridor.

There is over 16 million sq ft of office space in the M1 A1M St Albans Hemel PMA, with a further 9,400 sq ft under construction. The average rent per annum achieved in the area is currently £18.06 /sq ft, up from on five year average of £15.75. The vacancy rate is currently 5.9%, below its 8.5% five year average. The availability rate is 7.2%, below its 11.0% five year average. Stock availability is currently just over 1.2 million sq ft, below its five year average of over 1.8 million. Available stock spends 9.4 months on the market significantly lower than the 22.3 year average of 22.3 months.

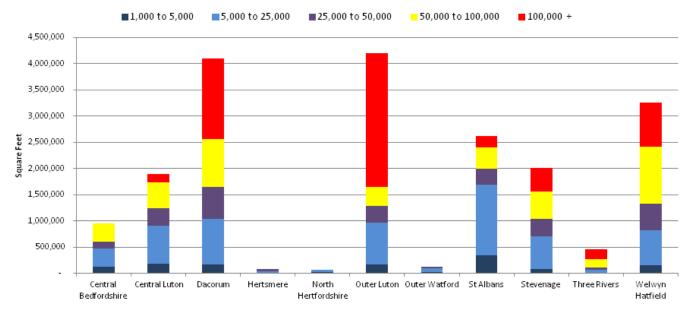
Figure 81 - Sub markets in M1 A1M St Albans Hemel PMA



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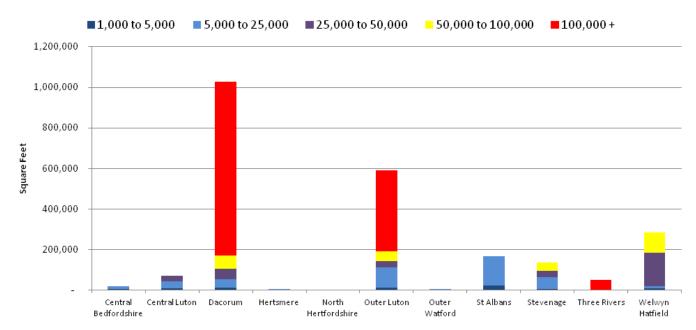


Figure 82 - Total office stock by submarket and size (sq ft) in M1 A1M St Albans Hemel PMA



Source: CoStar, Savills

Figure 83 - Total vacant office stock by submarket and size (sq ft) in M1 A1M St Albans Hemel PMA



Source: CoStar, Savills

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10.4. M1 Northampton-MK PMA

The overall picture and trend for the M1 Northampton-MK PMA show decreasing supply, falling vacancy rates and rising rents. The majority of the office stock is 3 star and below but there is a notable proportion of large higher quality offices compared to the other areas in the corridor.

There is over 16 million sq ft of office space in the M1 Northampton PMA, with a further 125,000 sq ft under construction. The average rent per annum achieved in the area is currently £14.75 /sq ft, up from on five year average of £12.29. The vacancy rate is currently 5.1%, below its 7.8% five year average. The availability rate is 8.3%, below its 10.8% five year average. Stock availability is currently just over 1.3 million sq ft, below its five year average of over 1.7 million. Available stock spends 13.1 months on the market compared to a five year average of 20.4 months.

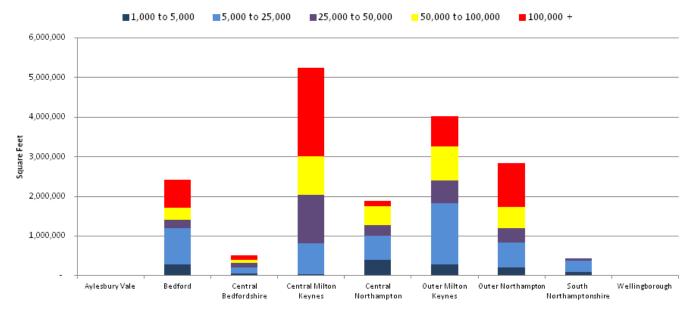
Figure 84 - Sub markets in M1 Northampton-MK PMA





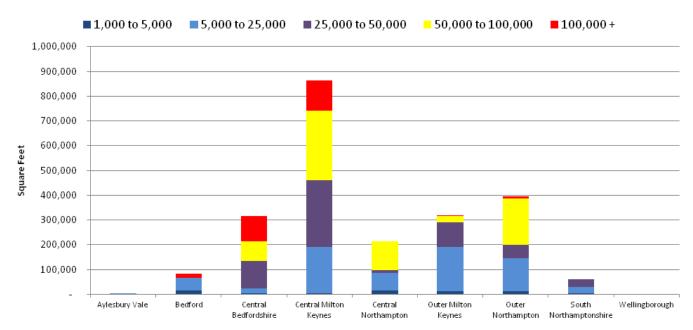


Figure 85 - Total office stock by submarket and size (sq ft) in M1 Northampton-MK PMA



Source: CoStar, Savills

Figure 86 - Total vacant office stock by submarket and size (sq ft) in M1 Northampton-MK PMA



Source: CoStar, Savills

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10.5. Oxford and Spillover PMA

The overall picture and trend for the Oxford and Spillover PMA show decreasing supply, falling vacancy rates and rising rents. The majority of the office stock is 3 star and below but there is a reasonable proportion of offices between 25,000 sq ft and 100,000 sq ft of four star or above compared to the other principles settlements in the corridor.

There is over 7 million sq ft of office space in the Oxford and Spillover PMA, with a further 111,000 sq ft under construction. The average rent per annum achieved in the area is currently £19.10 /sq ft, up from on five year average of £17.33. The vacancy rate is currently 3.9%, below its 4.5% five year average. The availability rate is 5.3%, below its 6.9% five year average. Stock availability is currently just over 350,000 sq ft, below its five year average of over 500,000. Available stock spends 13.0 months on the market compared to a five year average of 20.5 months.

Figure 87 - Sub markets in Oxford and Spillover PMA

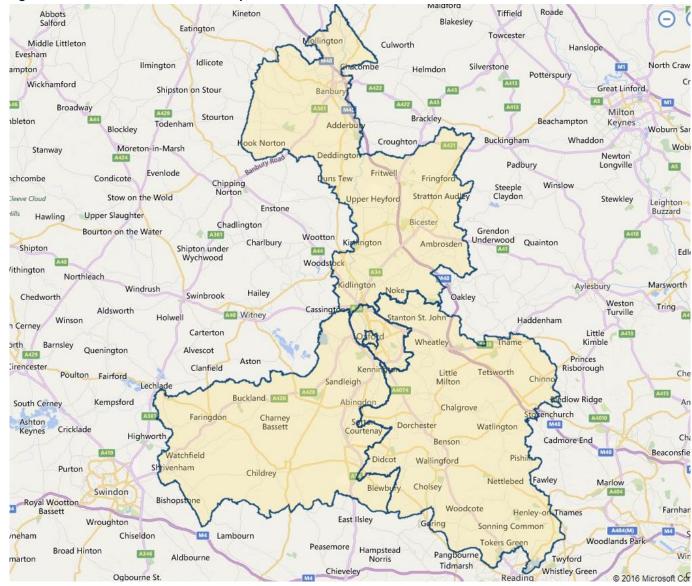
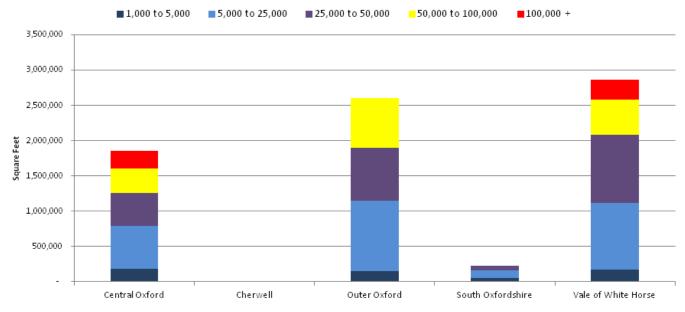




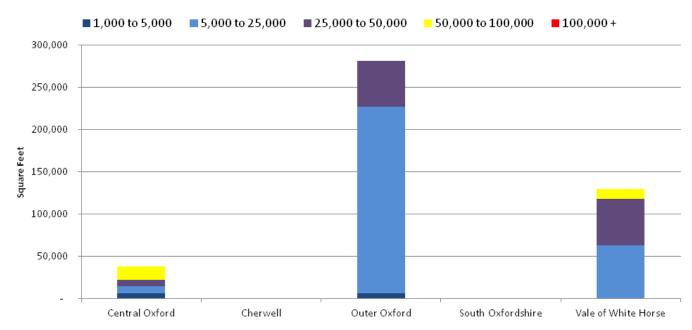


Figure 88 - Total office stock by submarket and size (sq ft) in Oxford and Spillover PMA



Source: CoStar, Savills

Figure 89 - Total vacant office stock by submarket and size (sq ft) in Oxford and Spillover PMA



Source: CoStar, Savills

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10.6. Dispersed Ox-Bucks

The overall picture and trend for the Dispersed Ox-Bucks PMA shows decreasing supply, falling vacancy rates and rising rents. Virtually all of the office stock is 3 stars and below, the majority of which is less than 50,000 sq ft The future supply of buildings compared to the other areas appears to be very low. Average rents per annum in the three principle settlements are significantly lower than their equivalents in the corridor and available stock spends longer on the market.

There is over 3.5 million sq ft of office space in the Dispersed Ox-Bucks PMA, with a further 400 sq ft under construction. The average rent per annum achieved in the area is currently £12.35 /sq ft, marginally up from on five year average of £10.98. The vacancy rate is currently 5.6%, below its 9.8% five year average. The availability rate is 7.7%, below its 13.7% five year average. Stock availability is currently just over 250,000 sq ft, below its five year average of over 500,000. Available stock spends 12.0 months on the market compared to a five year average of 20.9 months.

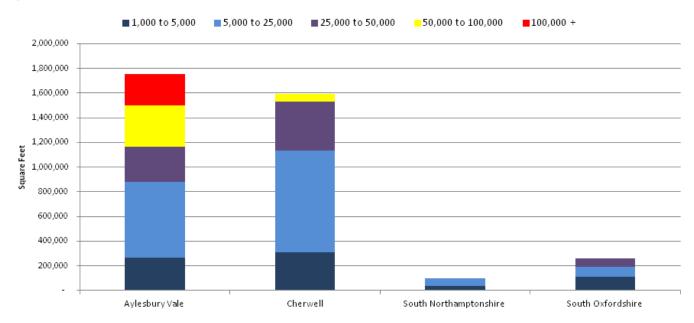




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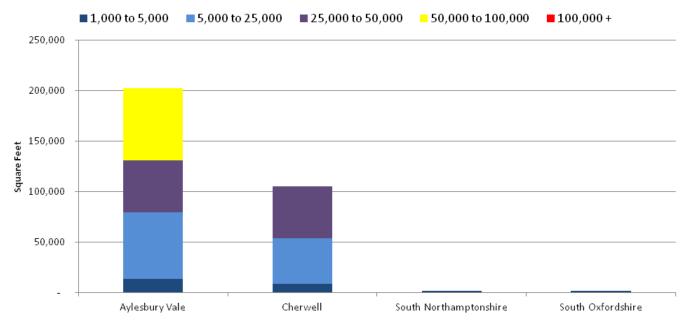


Figure 91 - Total office stock by submarket and size (sq ft) in Dispersed Ox-Bucks PMA



Source: CoStar, Savills

Figure 92 - Total vacant office stock by submarket and size (sq ft) in Dispersed Ox-Bucks PMA



Source: CoStar, Savills

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11. Appendix D – Industrial and Warehousing PMAs

11.1. A1M Corridor PMA

The overall picture and trend for the A1M Corridor PMA show marginally decreasing supply, falling vacancy rates and stable rents. Virtually all of the industrial stock is 3 star and below, with a large proportion 2 star and below.

There is over 42 million sq ft of industrial and warehouse space in the A1M Corridor PMA, with a further 18,950 sq ft under construction. The average rent per annum achieved in the area is currently £6.80/sq ft, marginally up from on five year average of £6.42. The vacancy rate is currently 3.8%, below its 5.8% five year average. The availability rate is 5.7%, below its 9.1% five year average. Stock availability is currently just over 2.4 million sq ft, below its five year average of over 2.4 million. Available stock spends 6.7 months on the market compared to a five year average of 15.1 months.

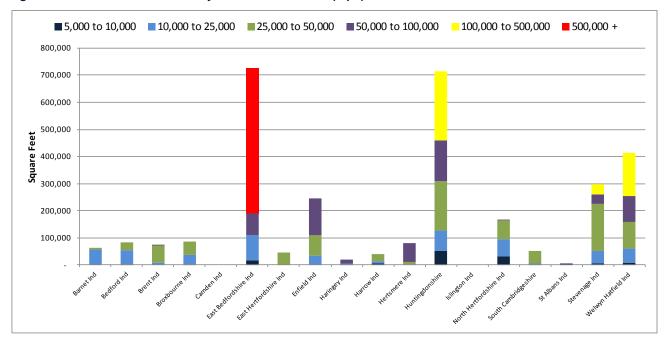
Figure 93 - Sub markets in A1M Corridor PMA



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Figure 94 - Total industrial stock by submarket and size (sq ft) in A1M Corridor PMA



Source: CoStar, Savills

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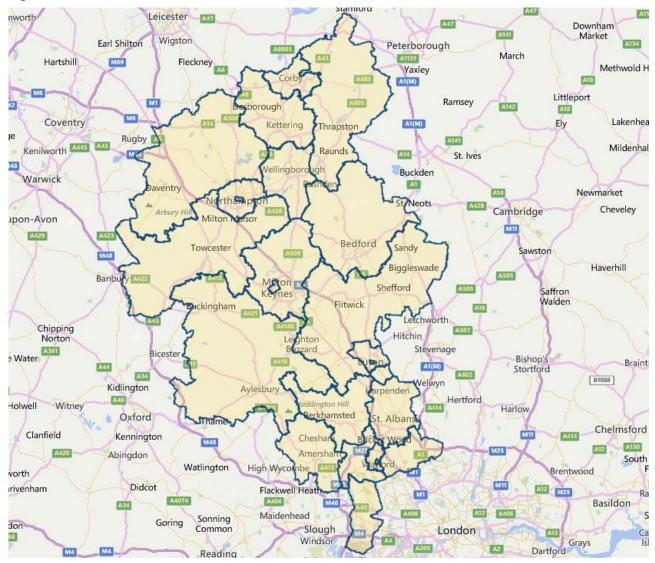


11.2. M1 Corridor PMA

The overall picture and trend for the M1 Corridor PMA show decreasing supply, falling vacancy rates and rising rents. Unlike the other three PMAs, the quality of the largest stock is relatively high. These sites tend to be concentrated around the Golden Triangle.

There is over 174 million sq ft of industrial and warehouse space in the M1 Corridor PMA, with a further 1.8 million sq ft under construction. The average rent per annum achieved in the area is currently £5.65/sq ft, marginally up from on five year average of £5.03. The vacancy rate is currently 3.3%, below its 6.3% five year average. The availability rate is 5.8%, below its 8.7% five year average. Stock availability is currently just over 10 million sq ft, below its five year average of over 14 million. Available stock spends 10.4 months on the market compared to a five year average of 14.5 months. Given the large geographical coverage of the area local statistics vary. The closer properties are to the Golden Triangle the more likely they are to be larger, of a higher quality, less available and more expensive.

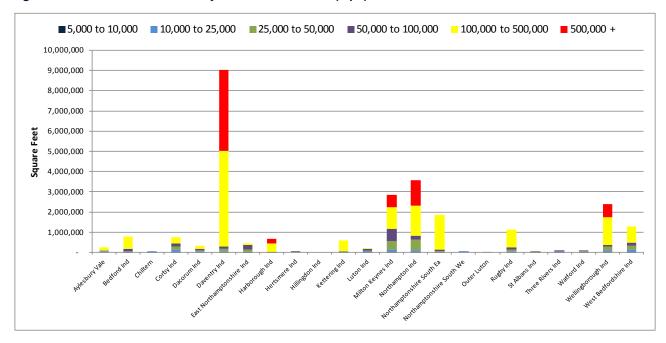
Figure 95 - Sub markets in M1 Corridor PMA



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Figure 96 - Total industrial stock by submarket and size (sq ft) in M1 Corridor PMA



Source: CoStar, Savills

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11.3. M11 Corridor PMA

The overall picture and trend for the M11 Corridor PMA show increasing supply, falling vacancy rates and marginally increasing rents. Virtually all of the industrial stock is 3 star and below.

There is over 29 million sq ft of industrial and warehouse space in the M11 Corridor PMA, with a further 158,000 sq ft under construction. The average rent per annum achieved in the area is currently £6.38/sq ft, marginally up from on five year average of £6.35. The vacancy rate is currently 3.1%, below its 5.7% five year average. The availability rate is 5.6%, below its 9.0% five year average. Stock availability is currently just over 1.6 million sq ft, below its five year average of over 2.6 million. Available stock spends 6.6 months on the market compared to a five year average of 13.9 months.

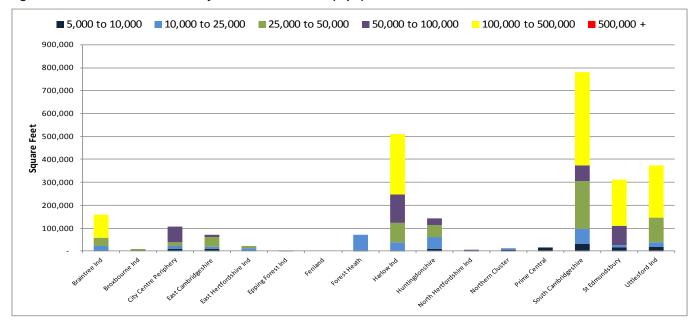
Figure 97 - Sub markets in M11 Corridor PMA



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Figure 98 - Total industrial stock by submarket and size (sq ft) in M11 Corridor PMA



Source: CoStar, Savills

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11.4. M40 Corridor PMA

The overall picture and trend for the M40 Corridor PMA show sharply decreasing supply, falling vacancy rates and marginally increasing rents. Virtually all of the industrial stock is 3 star and below.

There is over 24 million sq ft of industrial and warehouse space in the M11 Corridor PMA, with a further 4,000 sq ft under construction. The average rent per annum achieved in the area is currently £6.63/sq ft, marginally up from on five year average of £6.19. The vacancy rate is currently 5.7%, slightly below its 6.0% five year average. The availability rate is 6.9%, below its 8.9% five year average. Stock availability is currently just over 1.7 million sq ft, below its five year average of over 2.1 million. Available stock spends 7.9 months on the market compared to a five year average of 14.3 months.

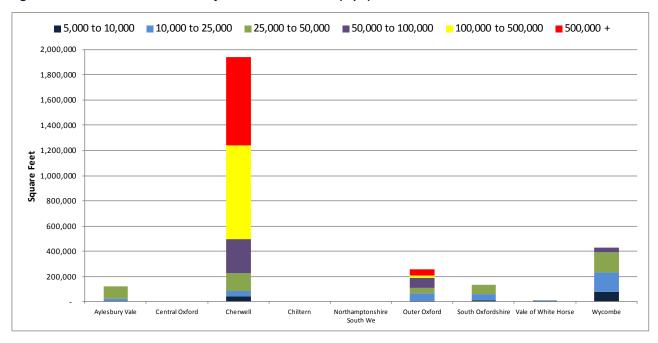
Figure 99 - Sub markets in M40 Corridor PMA



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Figure 100 - Total industrial stock by submarket and size (sq ft) in M40 Corridor PMA



Source: CoStar, Savills

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12. Appendix E – Employment Land Review Data

Local Authority	ties' Estimate of Demand for Employment Land, Use Class and Size Demand					
	Use	На	sq ft	Period		
Swindon	B1 (a) / (b)	160	17,222,240	2006-2026		
	B2 / B8 / B1 (c)	40	4,305,560	2006-2026		
	Sub Total	200	21,527,800			
			-			
East Cambridgeshire	B1 (a) / (b)	12.1	1,302,432	2005 - 2025		
	B1 (c)	24.1	2,594,100	2005 - 2025		
	B2 / B8	5.6	602,778	2005 - 2025		
	Sub Total	41.8	4,499,310			
South Cambridgeshire	B1 (a)	30.6	3,293,753	2011 - 2031		
	B1 (b)	15.3	1,646,877	2011 - 2031		
	B2 / B1 (c)	-6.4	- 688,890	2011 - 2031		
	B8	3.8	409,028	2011 - 2031		
	Sub Total	43.3	4,660,769			
Cambridge	B1 (a)	8.7	936,459	2011 - 2031		
	B1 (b)	2.7	290,625	2011 - 2031		
	B2 / B1 (c)	0.2	21,528	2011 - 2031		
	B8	3.6	387,500	2011 - 2031		
	Sub Total	15.2	1,636,113			
North Hertfordshire	B1 (a) / (b)	3.5	376,737	2011-2031		
	B2 / B8 / B1 (c)	-19.6	- 2,109,724	2011-2031		
	B8	8.4	904,168	2011-2031		
	Sub Total	-7.7	- 828,820			
Stevenage	B1 (a)	17.2	1,851,391	2013-2031		
	B2 / B8 / B1 (c)	6.3	678,126	2013-2031		
	Sub Total	23.5	2,529,517			
East Hertfordshire	B1	11.9	1,280,904	2001 - 2021		
	B2	-23.8	- 2,561,808	2001 - 2021		
	B8	5.9	635,070	2001 - 2021		
	Sub Total	-6	- 645,834			
Central Bedfordshire	Unspecified	77	8,288,203	2008-2026		
	Sub Total	77	8,288,203			
Bedford	B1	19	2,045,141	2015-2032		
	B2	29	3,121,531	2015-2032		
	B8	17	1,829,863	2015-2032		
	Sub Total	65	6,996,535			
Luton	B1 (a)	25.1	2,701,739	2013-2031		
	B2 / B8 / B1 (c)	23.5	2,529,517	2013-2031		

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Local Authority	Demand					
	Use Ha sq ft Peri					
	Sub Total	48.6	5,231,255			
Milton Keynes	B1 (a)	21	2,260,419	2013-2031		
	B1 (a) / B1 (c)	9	968,751	2013-2031		
	B2 / B8	94	10,118,066	2013-2031		
	Sub Total	124	13,347,236			
Aylesbury Vale	Baseline Demand	106	11,409,734	2012-2031		
	B1 (a) / (b)	24.4	2,626,392	2012-2031		
	B2 / B1 (c)	-6.2	- 667,362	2012-2031		
	B8	31.9	3,433,684	2012-2031		
	Sub Total	156.1	16,802,448			
Vale of White Horse	B2 / B8	24.7	2,658,683	2013-2029		
	B1	25.9	2,787,850	2013-2029		
	Enterprise Zone	92	9,902,788	2013-2029		
	Sub Total	142.6	15,349,321			
West Oxfordshire	B1 (a) / (b)	11.3	1,216,321	2011-2031		
	B2	9.6	1,033,334	2011-2031		
	B8	6.5	699,654	2011-2031		
	Sub Total	27.4	2,949,309			
Cherwell	B1	27.8	2,992,364	2010-2026		
CHOINGE	B2	6.5	699,654	2010-2026		
	B8	32.2	3,465,976	2010-2026		
	Sub Total	66.5	7,157,994	2010-2026		
South Oxfordshire	B1 (a) / (b)	5.6	602,778	2014-203 ⁻		
	B2 / B8	10.5	1,130,210	2014-2031		
	Sub Total	16.5	1,776,044			
Wellingborough	B1 North Northants	51	5,489,589	2001-2021		
	B1 West Northants	83	8,934,037	2001-2021		
	B1 Northamptonshire	133	14,315,987	2001-2021		
	B2 North Northants	2	215,278	2001-2021		
	B2 West Northants	-53	- 5,704,867	2001-2021		
	B2 Northamptonshire	-51	- 5,489,589	2001-2021		
	B8 North Northants	246	26,479,194	2001-2021		
	B8 West Northants	125	13,454,875	2001-2021		
	B8 Northamptonshire	372	40,041,708	2001-2021		
	Sub Total	908	97,736,212			
South Northamptonshire	B1 (a)	2.4	258,334	2012-2031		
	B8 / B2	9.6	1,033,334	2012-2031		
	Other Business	-1.9	- 204,514	2012-2031		
	Sub Total	166.2	17,889,602			



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Local Authority		Demand				
	Use	На	sq ft	Period		
Daventry		Not Available				
Oxford City		Not Available				
Huntingdonshire	Not Available					
	Total	2,108				

Employment Land Reviews for each of the listed local authorities

Important Note

Finally, in accordance with our normal practice, we would state that this report is for general informative purposes only and does not constitute a formal valuation, appraisal or recommendation. It is only for the use of the persons to whom it is addressed and no responsibility can be accepted to any third party for the whole or any part of its contents. It may not be published, reproduced or quoted in part or in whole, nor may it be used as a basis for any contract, prospectus, agreement or other document without prior consent, which will not be unreasonably withheld.

Our findings are based on the assumptions given. As is customary with market studies, our findings should be regarded as valid for a limited period of time and should be subject to examination at regular intervals.

Whilst every effort has been made to ensure that the data contained in it is correct, no responsibility can be taken for omissions or erroneous data provided by a third party or due to information being unavailable or inaccessible during the research period. The estimates and conclusions contained in this report have been conscientiously prepared in the light of our experience in the property market and information that we were able to collect, but their accuracy is in no way guaranteed.