

This document is for professional clients, financial advisers and institutional or qualified investors only. Not to be distributed, or relied on by retail clients.

AVIVA INVESTORS BEDROOM ECONOMICS THE IMPACT OF DEMOGRAPHICS ON RESIDENTIAL REAL ESTATE

by **Monika Sujkowska**

November 2017



MONIKA SUJKOWSKA

ANALYST, REAL ESTATE
INVESTMENT STRATEGY
AND RESEARCH

Main responsibilities

She is responsible for developing market views, forecasts and strategic advice with a primary focus on Europe.

Experience and qualifications

Prior to joining Aviva Investors, Monika was a Senior Analyst in the Investment Strategy team at Cushman and Wakefield. She holds an MA in Economics from University College London and a BA in International Relations from Warsaw University.

Contents

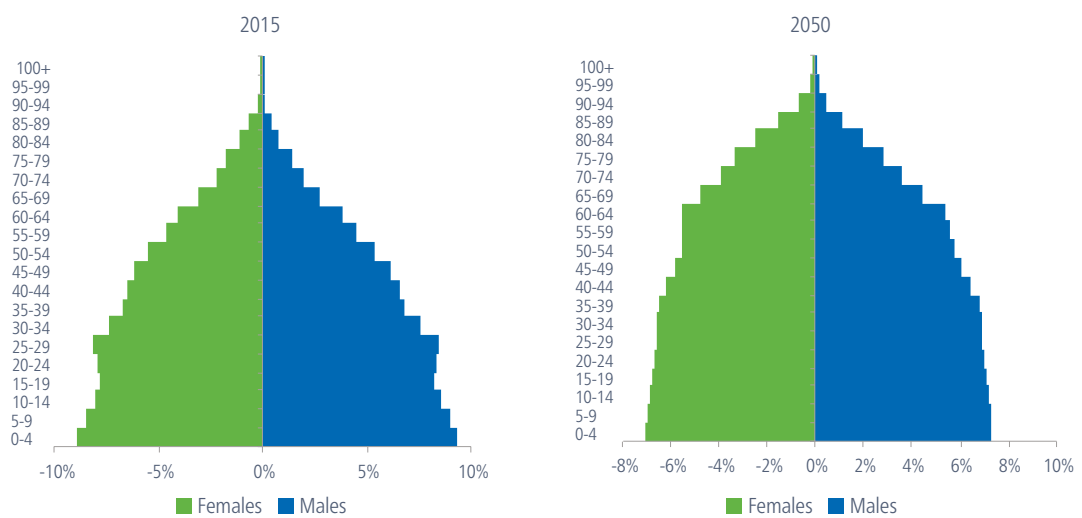
Introduction	3
German apartments: opportunity or trap?	4
UK: weakening demand for student accommodation	6
Australia's retirement villages	7
US manufactured homes	8
Conclusion	9

Changes in the age profile of populations will have a significant impact on demand for real estate; influencing the type, functionality and locations that are likely to be popular. We look at how demographic shifts will affect occupier demand for residential real estate in selected markets across the globe.

The population structure is changing across the world. Improving living conditions and medical advances are expected to lead to a rapid increase in the proportion of older people over the coming decades. The United Nations (UN) expects the share of the over-65s in the global population to increase from 8.3 per cent in 2015 to 16.2 per cent by 2050.

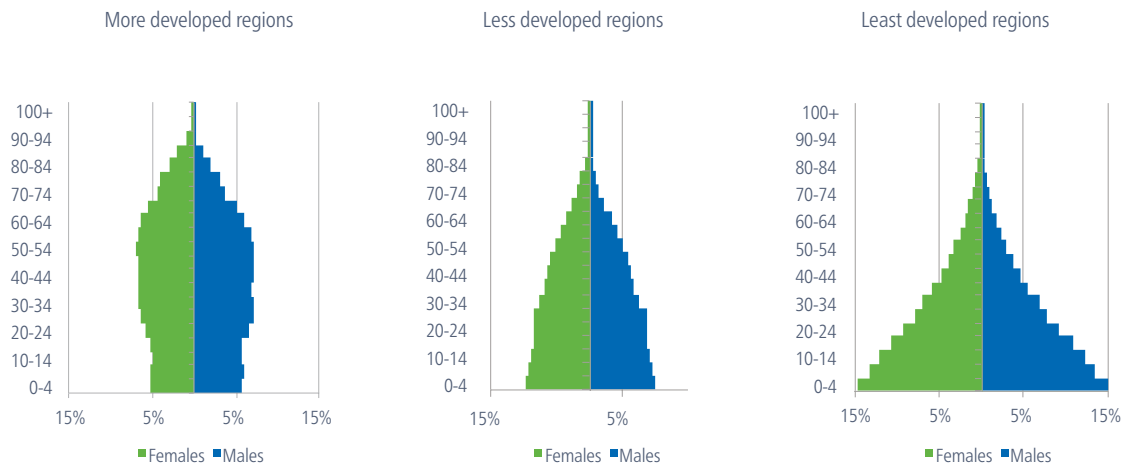
Younger age cohorts are projected to grow in absolute terms, but their share of the total population will shrink. The proportion of people aged under 20 globally will fall from today's 34.2 per cent to 28.4 per cent in 2050.

Figure 1: The changing structure of the world's population, 2015-50



Source: United Nations, July 2015

Figure 2: The demographic profile of the world's population by region



Source: United Nations*, July 2015

* The UN's more developed regions category comprises Europe, North America, New Zealand, Australia and Japan. Less developed regions comprise all regions of Africa, Asia (except Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia. The group of least developed nations comprises 34 countries in Africa, 9 in Asia, 4 in Oceania and one in Latin America and the Caribbean.

The world's population pyramid is expected to start to resemble the structure already evident in developed regions. Factors that have caused people in developed countries to live longer – such as improving living conditions and better healthcare - are expected to spill over to less developed countries. In addition, people are likely to have fewer children and have them later as a result of lifestyle choices.

Here, we examine how changing demographics affect demand for different types of residential property:

1. Over the past decade, the growing number of 18-24 year olds has provided a tailwind to the UK student accommodation sector. Now, however, numbers in this age group are declining and investors in student accommodation may need to be more selective.
2. In Germany, a dramatic decline in the number of people in their 20s and 30s means demand for some forms of private rented housing is likely to shrink.
3. A near 65 per cent increase in the number of Americans aged over 65 over the next 15 years is forecast to boost demand for US manufactured homes aimed at retirees.
4. Australia has particularly favourable demographics for retirement real estate. The number of people aged over 65 is projected to increase by more than 100 per cent by 2050 – the highest rate of growth in the developed world.

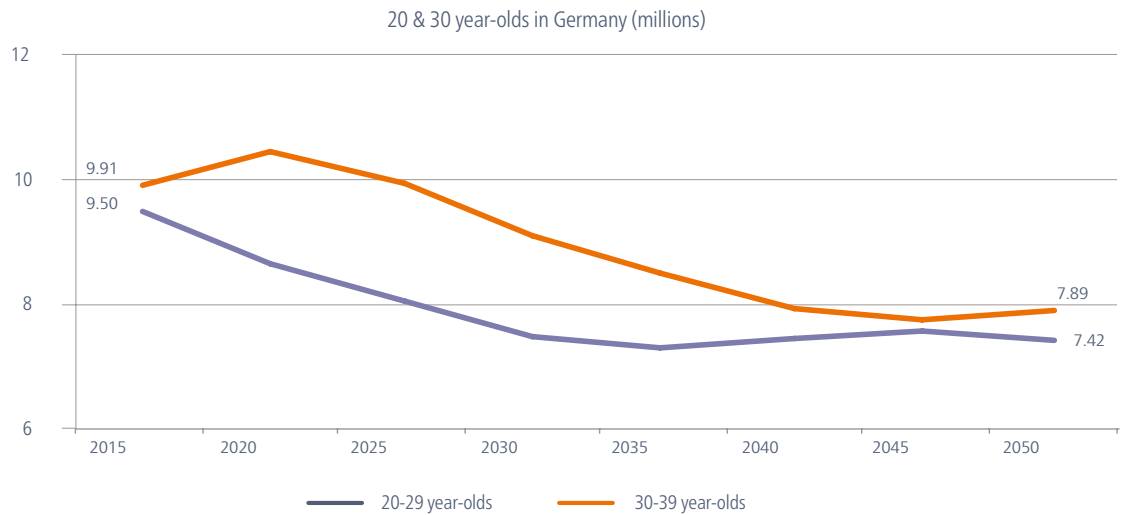
German apartments: opportunity or trap?

Multi-family residential rents in Germany increased by over 20 per cent nationally since 2012 and prices have gone up by nearly 40 per cent¹. Urbanisation resulted in much stronger growth in large cities, led by Berlin and Munich, which saw house prices increase by 11 per cent in 2016 alone². The limited supply of residential space, as well as an increased interest in property as an investment given low yields in other asset classes, appears to have driven this strong performance.

Demographic projections for the country overall are subdued, however, and particularly concerning for 20-40 year-olds. The age group is a major source of demand for rented accommodation and its decline does not bode well for future growth in the rented apartments sector. Indeed, Germany is

facing a serious demographic challenge. The size of the population aged under 60 is expected to shrink by 13 per cent by 2030, according to the UN. This decline will be particularly steep for people in their twenties, with the number of 20-24 year olds expected to shrink by 19 per cent by 2030 and 25-29 year olds by a staggering 23 per cent.

Figure 3: Decline in 20-39-year old population in Germany, 2015-2050

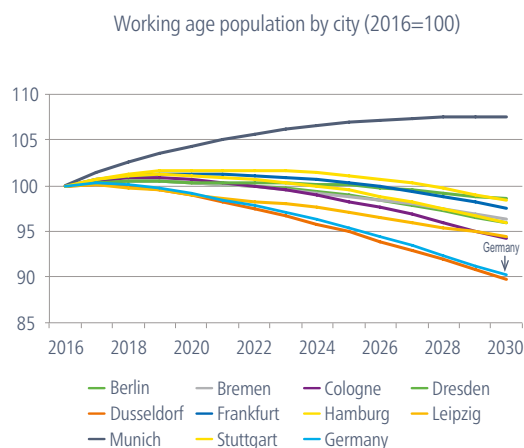


Source: United Nations, July 2015

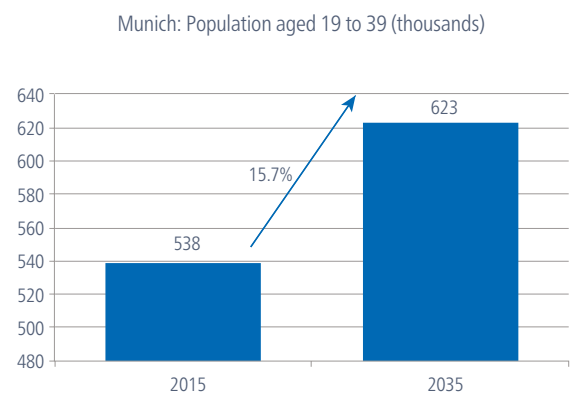
Germany is the only Western European country where the working age population in even the largest cities is expected to decline in the short to medium term, although these cities will fare better than the nation as a whole. For example, Frankfurt’s population aged 15-65 is projected to shrink by 2.5 per cent by 2030 and Berlin’s by 4.2 per cent, according to Oxford Economics.

There are exceptions. Munich’s working age population is set to grow by 7.5 per cent in the same period, according to the same source. The Munich department for urban planning expects even higher growth of 18.6 per cent and projects the 19 to 39 age group will grow by 15.7 per cent. In addition to favourable demographics, there are significant barriers to entry for residential development in the city, with local rules banning high-rises to protect historic views.

Figure 4: Demographic headwinds facing the German residential sector



Source: Oxford Economics, February 2017



Source: City of Munich, Department for Urban Planning, April 2017

Nevertheless, demographic changes are a long-term headwind for the German residential sector. The structural characteristics of the market may also limit growth. Planning regulations support residential development, with the provision of housing being favoured over some other policies, such as the preservation of green space.

Although limited supply and high investment demand due to attractive relative pricing have spurred growth in the sector in recent years, the medium to long term outlook looks less promising given the declining number of twenty- and thirty-somethings. Munich is a notable exception.

UK – weakening demand for student accommodation?

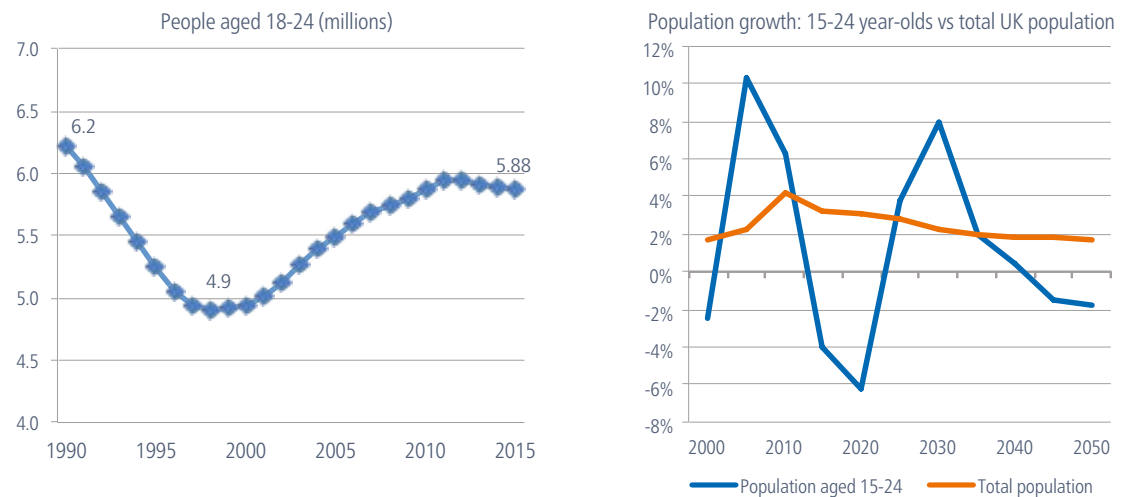
The UK student accommodation sector has performed strongly in recent years, with prime rents up by an average of 5.9 per cent per year between 2006 and 2016³. Higher yields than traditional real estate and good growth prospects have resulted in robust investor demand. Assets worth £6 billion were traded in 2015 and approximately £4.5 billion in 2016, compared to an average of £1.8 billion per year between 2010 and 2014⁴. Student accommodation has moved closer to the mainstream of real estate investing to become established in a number of institutional portfolios.

Rising student numbers – applications to UK universities increased by 41.9 per cent between 2006 and 2016 and acceptances rose by 36.9 per cent over this period - have driven demand for space in this segment⁵. Factors supporting the impressive growth in student numbers include:

1. Higher participation rates – 36.8 per cent of 18 year-olds applied to universities in 2017, compared to 27.6 per cent in 2006⁶.
2. Increasing number of international students – acceptances for non-EU students rose by 49.8 per cent between 2006 and 2016⁷.
3. Growth of the young population - a 5.2 per cent increase in the number of people aged 18 to 24 was recorded between 2005 and 2015⁸.

Following solid growth in the number of people aged 18-24 in 2000-2012 (20.5%), a 1.2 per cent decline was recorded between 2012 and 2015¹. Projections are available for the 15-24 age group. A 6.3 per cent fall is projected for this cohort for 2015-2020 due to the demographic dip in the early 2000s. This decline is expected to take place despite steady growth in the total UK population⁹. While a rebound is expected in 2025 following a recovery in birth rates during 2010-16, demographics are likely to limit demand for student accommodation over the medium term.

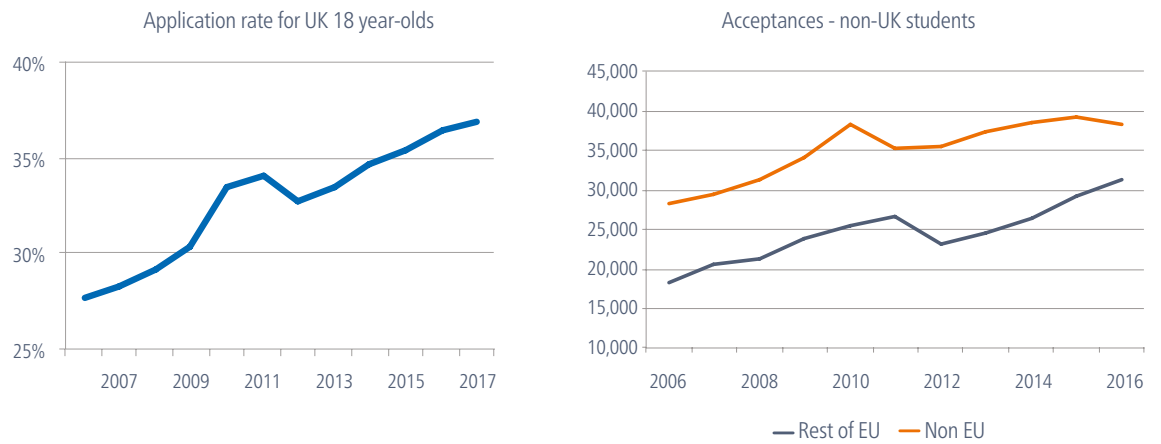
Figure 5: People of university age (1990-2015) and growth projections for 15-24 year olds



Source: ONS, July 2015

Source: United Nations, July 2015

Figure 6: Higher education participation rate and size of non-UK student population, 2006-17



Source: ONS, July 2015

Source: UCAS, August 2017

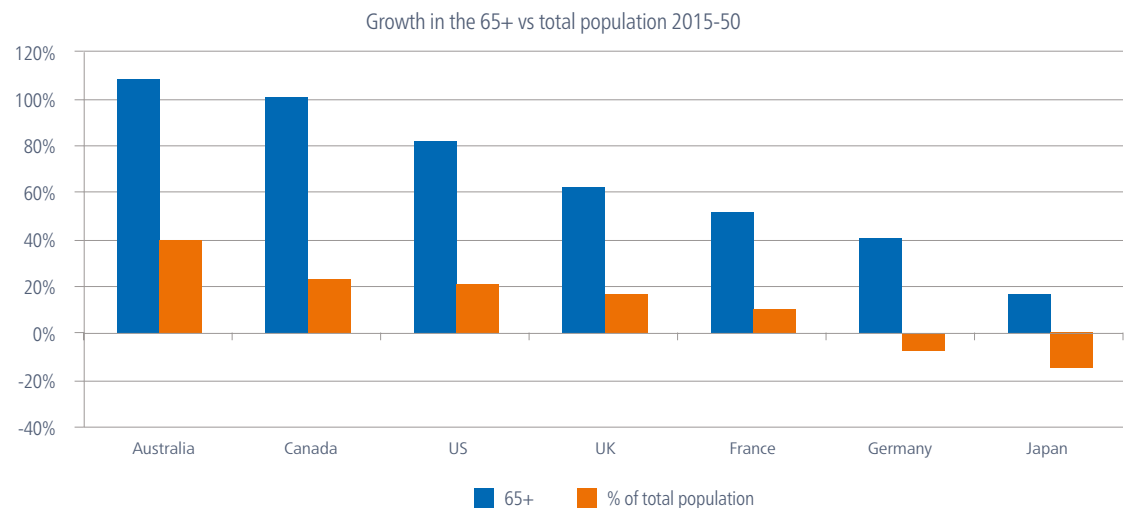
There are factors other than demographics that might spur demand. The UK student accommodation sector operated by private operators is still small, with bed spaces accounting for only 14.7 per cent of the UK full-time student population of 1.7 million¹⁰. A growing preference for occupying privately-operated student facilities as opposed to house sharing or living in family homes could support demand. A significant rise in participation rates or a pick-up in overseas students choosing the UK as a place to study would also have an impact on aggregate demand, although there are downside risks to these sources of demand.

Investors should take a view on each of these demand drivers to judge if they can offset demographic weakness over the next 10 years.

Australia’s retirement villages

Demographic changes imply rising demand for all types of retirement living in Australia over the long term. The UN projects a 108.9 per cent increase in the number of people aged over 65 by 2050 – the highest growth rate in the developed world. This is only partially a product of an ageing population – Australia’s overall population growth projections also exceed other developed countries.

Figure 7: Australia’s ageing population to drive demand for retirement living, 2015-50



Source: United Nations, July 2015

The provision of real estate suitable for retirees will have to increase to accommodate this growth. In countries like Japan and Germany, there is considerable flexibility to convert assets accommodating younger age groups into real estate suitable for older demographics. In Australia, robust growth across all age groups will limit the potential for conversions.

Investors need to assess the income growth prospects for retirement villages in Australia by taking into account not just favourable demographics but also the barriers to entry facing developments. Attractive cyclical opportunities are likely to exist as supply often lags demand. In the long term, however, out-of-town locations and the land-rich nature of the country may limit the rental growth potential.

US manufactured homes

Manufactured homes - including factory-built homes and recreational vehicles (RVs) - make up 6.4 per cent of the US housing stock, according to the 2011 US Census.

A manufactured home (also called mobile homes) can be located on an owner's land. Alternatively, an investor owning a manufactured-home community can lease land upon which residents can place their factory-built homes or RVs on a permanent, long-term or short-term basis. Residents can also lease properties for limited stays.

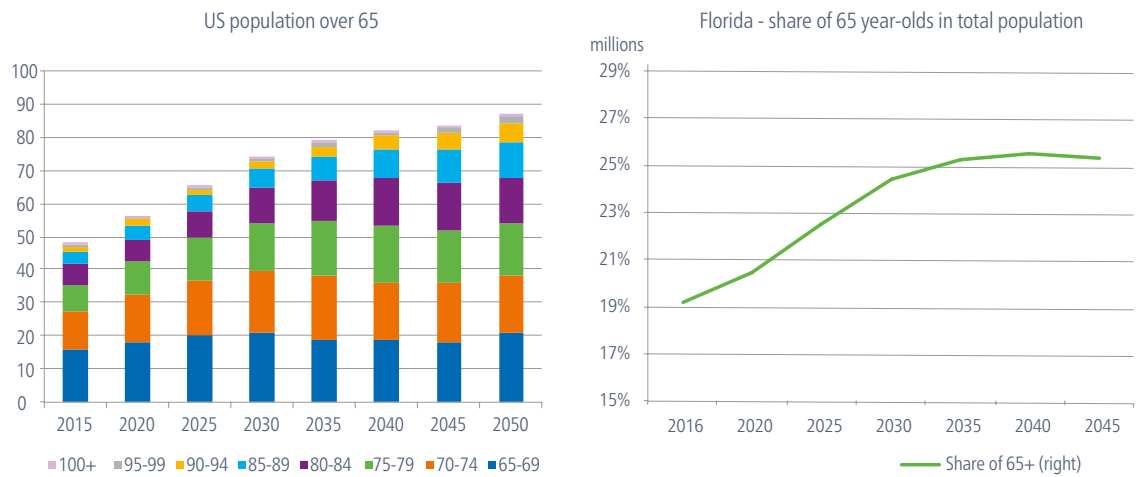
Poorer members of the population have historically occupied manufactured homes. The household income of today's occupiers still stands at just over half of the national average. There are, however, pockets of the market that attract residents with higher incomes, most notably some age-restricted communities for retirees. Around 23 per cent of US manufactured-home occupiers are currently retirees¹¹ who are attracted to this type of accommodation by:

1. Affordability: opportunity to release equity from a brick and mortar home.
2. Lifestyle: most sought after sites are in attractive locations with a warm climate.
3. Amenities: sites often have a swimming pool, tennis courts and club house, and are in close proximity to golf courses.
4. A social network.

The US population aged over 65 is forecast to increase by 64 per cent over the next 15 years and by 82 per cent by 2050, which is likely to lead to a rise in the number of people in need of such accommodation.

Sunbelt states are particularly popular with retirees, and likely to remain so. In Florida, the proportion of over 65s currently stands at 20 per cent (compared to the national average of 15 per cent) and is expected to increase to 25 per cent in 2035.

Figure 8: The USA's ageing population is likely to drive demand for manufactured homes



Source: United Nations, July 2015

Source: Bureau of Economic and Business Research, June 2017

Alongside demographic drivers, investors ought to consider supply side factors. Currently, securing zoning permits from US local authorities is a considerable barrier to entry. This is due to the lingering negative public perception of manufactured housing, as well as the fact such communities generate less tax revenue than conventional residential property. On the other hand, there are limited geographic barriers to entry given the out-of-town locations.

A more favourable regulatory environment for manufactured home site development would have a significant impact on the potential for rental growth in this sector.

Conclusion

Significant changes in the age make-up of population across the globe will have a major impact on demand for residential real estate. In many countries, opportunities will open up in sectors targeting people of a post-productive age.

However, factors other than demographics have to be taken into account when assessing investment opportunities. For example, in land-rich markets where developers face low barriers to entry, higher demand will be met by a proportionate increase in supply. Only where barriers to entry are meaningful, can increased demand be expected to have an affect on the long-term performance of real estate.

Sources

¹Association of German Pfandbrief Banks (vdp), Macrobond

²Stiftung Warentest

³PMA

⁴Savills

⁵UCAS

⁶UCAS

⁷UCAS

⁸ONS

⁹United Nations project 5.9% growth in total UK population between 2015 and 2025.

¹⁰CBRE, Student Accommodation comes up Trumps in Brexit Year

¹¹Census

Important Information

Unless stated otherwise, any sources and opinions expressed are those of Aviva Investors Global Services Limited (Aviva Investors) as at 6 November 2017. This commentary is not an investment recommendation and should not be viewed as such. They should not be viewed as indicating any guarantee of return from an investment managed by Aviva Investors nor as advice of any nature. Past performance is not a guide to future returns. The value of an investment and any income from it may go down as well as up and the investor may not get back the original amount invested.

Aviva Investors Global Services Limited, registered in England No. 1151805. Registered Office: St Helen's, 1 Undershaft, London EC3P 3DQ. Authorised and regulated by the Financial Conduct Authority and a member of the Investment Association. Contact us at Aviva Investors Global Services Limited, St Helen's, 1 Undershaft, London EC3P 3DQ.

J23695 - RA17/1456/31032018