

Comparison between Experian and OBR Participation Rate Projections

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We compare the methodologies used by the Office for Budget Responsibility and Experian in deriving participation rate projections, and assess the results.

Introduction

As part of their January 2017 Fiscal Sustainability Report (FSR), the Office for Budget Responsibility (OBR) published updated participation rate projections to 2066 by gender and five-year age band. As in 2015, following the release of the previous FSR, we will compare and evaluate the latest OBR projections with our own, with particular focus on what has changed since 2015.

- We will compare Experian's most recent projections with those of the OBR;
- We will explain Experian's projections; and
- We will offer an assessment of OBR's projections.

Comparison

Firstly, Experian's projections have a different purpose to those in the FSR. The purpose of the FSR paper is to "...assess the long-term sustainability of the public finances". Experian's projections are intended to produce a realistic forecast for the labour market in order to drive our macro, regional and local forecasts.

Secondly, Experian's horizon reaches out to 2040⁽¹⁾ whereas the FSR projects as far as 2066.

In Appendix A, we set out Experian and the FSR's projections of activity rates for people aged 16-64 and 65+, as well as the overall participation rate for the population aged 16+.

Experian's projection for participation rates for those aged 16-64 reaches 80.3% by 2037, compared with the FSR projection of 78.6% by 2037. Meanwhile, for those aged 65+, the FSR forecast reaches 14.1% and Experian's rises to 17.7% by 2037. When comparing the latest FSR projections with the previous edition, the forecasted participation rate for those aged 16-64 is now two percentage points higher by the end of the forecast period. Over the same period, Experian projections have generally remained stable relative to the previous set of forecasts, with an increase of less than one percentage point from old to new. In addition, the FSR projections

⁽¹⁾ The initial forecasts contained in this report reach out to 2037, but it has been deemed necessary to extend this to 2040 in some cases.

for those aged 65+ plus have changed from 13.7% for 2035 previously to 14.1% for 2037, with Experian's projections similarly shifting from 16.7% for 2035 previously to 17.7% for 2037. The main cause of this increase in the case of our own forecasts is our incorporation of the recently announced State Pension age increase to 68 between 2037 and 2039, as outlined in Appendix B below.

Age Band	Previous forecast end points (2035)		Latest forecast end points (2037)	
	OBR	Experian	OBR	Experian
16-64	76.5%	79.6%	78.6%	80.3%
65+	13.7%	16.7%	14.1%	17.7%
16+	58.3%	61.4%	59.7%	62.0%

Source: Experian, OBR

Both Experian and the FSR's 16+ participation rates decline throughout the forecast due to the aging of the population. The FSR projections fall more sharply than Experian's, due mostly to the different 16-64 participation rates. Experian's projection declines to 62% in 2037, while the FSR's falls to 59.7%.

In each case, the OBR's projections have shifted towards our own throughout the forecast period.

Experian's Projections

The full rationale for Experian's projections is set out in Appendix B below, which takes into account the 2014 national population projections and more recent data on participation rates by age and gender.

In summary, Experian projects forward activity rates for each age and gender group taking into account:

- Announced changes to public policy (in particular the change in State Pension Age (SPA));
- Expected changes in the participation of females in older age groups as evidenced by today's participation rates of younger cohorts (who will age into those older groups);
- Expected changes in behaviour connected with improved longevity and health; changes to patterns of work (allowing older people to continue working under more flexible arrangements); and changes in the industrial composition of the economy (especially the shift to services.)

These activity rates are applied to the population projections to produce activity rates for the 16-64, 65+ and 16+ age groups. The full breakdown by age and gender is set out in the note.

Assessment of the OBR's approach

The model used in the FSR is based on a cohort approach. The key distinction between this and Experian's approach is that Experian's starting point for the behaviour of an age-gender group is the behaviour of the same group today. FSR on the other hand, takes as its starting point the current behaviour of the people who will age into that age-gender group in the future.

The consequence for this approach is that if a younger cohort today has – for some reason – a reduced participation rate, this reduction in activity rates will be perpetuated throughout its life-cycle. This means that reduced participation rates in a younger age group today will lead to a permanent decrease in comparison to older generations.

This trend was particularly prominent in the supplementary tables to the FSR 2015 (published 05/11/2015), especially for males. Although participation rates differ consistently between age bands throughout the forecast, the 2015 FSR model forecast a permanent decrease in the activity rate of the cohort that was aged 25-29 in the medium term.

The effect is still apparent in the supplementary data of the FSR 2017 (published 17/01/2017), with staggered declines of approximately two per cent over a 12-year period for males aged 40-44, 45-49 and 50-54, but the trend is far less pronounced this time. The new history available since the FSR 2015 is presumably a key factor in the OBR's revised forecasts, with participations rates of 91.08% and 90.47% for males aged 25-29 in 2015 and 2016 respectively turning out as 91.5% and 91.7%. The higher turnout for these figures, among other factors, has evidently reduced the extent to which the 'cohort effect' is carried forward over time. The result of these revisions is that the OBR's forecasted participation rates for males aged 25-54 are higher than they were previously. The same effect is similarly diminished for females of the same 25-54 age groups, resulting in an upward shift in all of the forecasts.

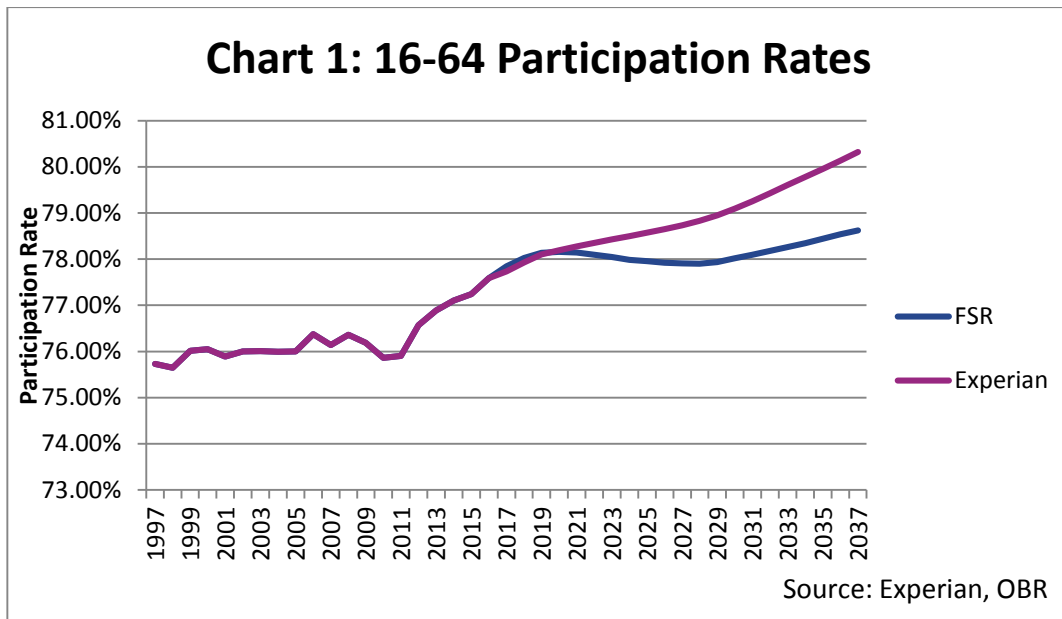
The permanent decline in participation rates in each age band arising from the cohort approach still leads to a slight decline in the participation rate for all people aged 16-64 over the next ten years (Chart 1 in Appendix A), albeit by a significantly smaller margin compared with the 2015 forecasts. In the FSR, the 16-64 participation rate now reaches at 78.05% in 2020 before falling to its lowest value of 77.79% in 2028. This 0.26 percentage point decrease compares with a fall of 0.92 percentage points in the 2015 forecasts (between 2017 and 2028). By 2037, Experian's projection is only 1.8 percentage points higher than that of the FSR, compared with the previously estimated difference of 3.1 percentage points by 2035. The overall 16+ activity rate from the FSR falls by 3 percentage points over the 20 year forecast period (compared with 4 percentage points previously), while Experian's is still set to decline by less than one percentage point.

Conclusion

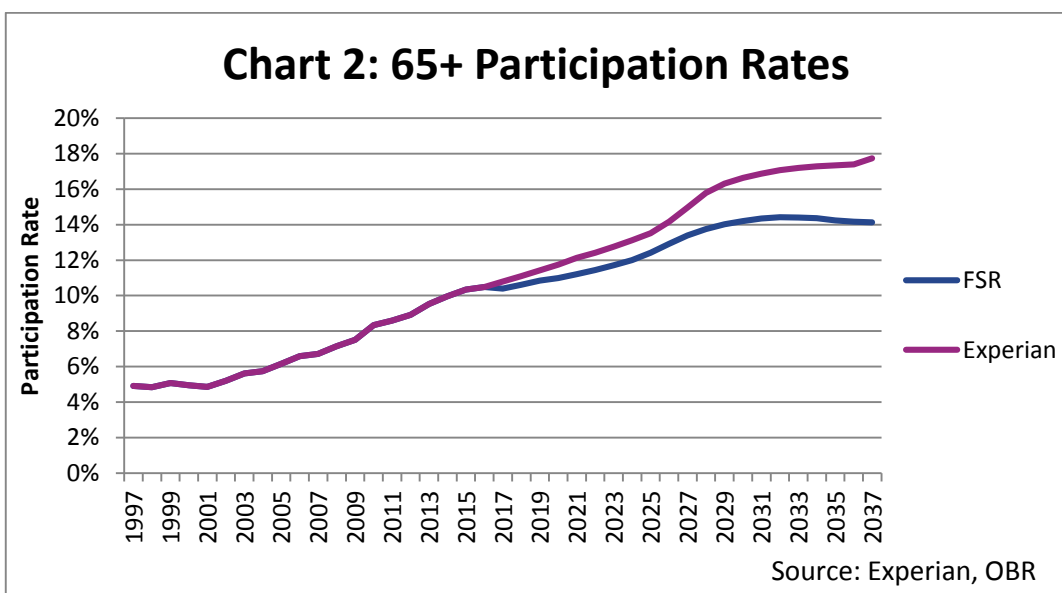
While the magnitude of the 'cohort effect' has been reduced, it is still evident in the OBR's forecasts. The changes made in the current FSR projections have shifted their forecasts closer to the Experian baseline. The Experian participation rate projections have remained stable, with the same assumptions applied and when incorporating the latest data points, there have been minimal changes. As such, we consider these projections credible and given the FSR projections have updated their view to be closer aligned to our outcomes, we will continue to adopt Experian own projections in our forecasting models.

Appendix A

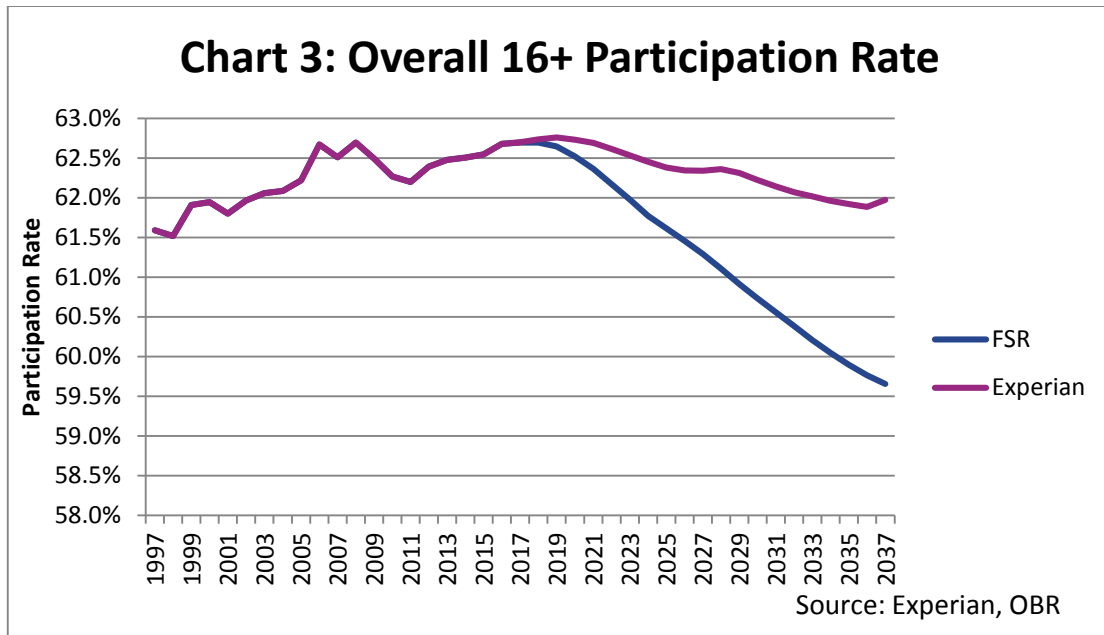
The following charts apply the growth rates of participation rates by age and gender to Experian's participation rate history. Both Experian and the FSR's grouped participation rates are calculated by using the ONS 2014-based National Population Projections.



When calculating the participation rates for those aged 16-19 for both genders, Experian has attempted to fill in the FSR participation rates for period 2009-2021, which are not provided in the supplementary tables. The proportion of the working age population aged 16-64 averages 7.4% over the 2017-2037 forecast period.



The OBR does not provide projections for participation rates for those aged 90+. Experian assumes that there is no participation by those aged 90+.



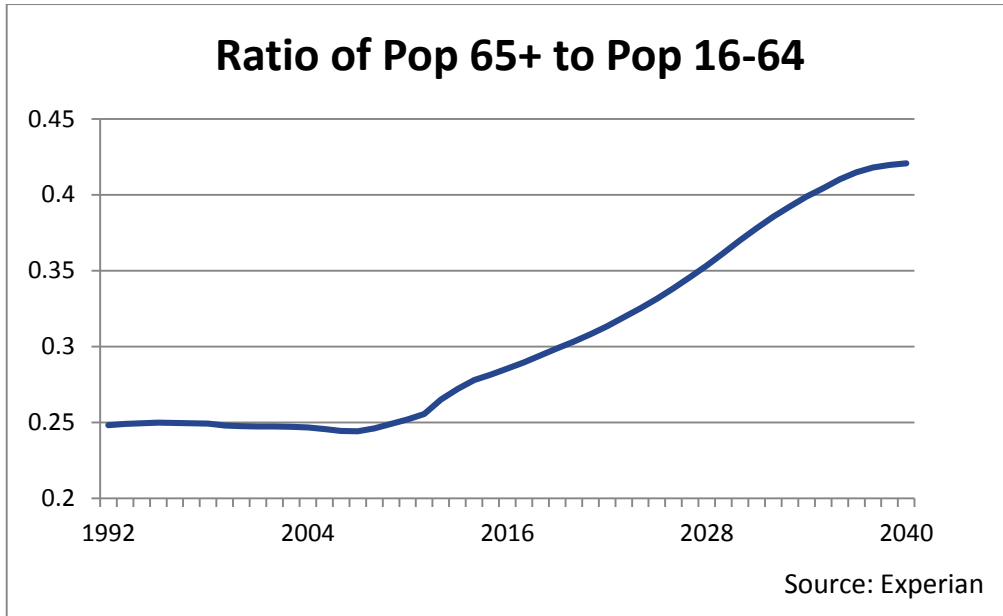
Appendix B

In 2037, there will be nearly 18 million people in the UK aged over 65; this contrasts with around 12m in 2017. Moreover, they will make up nearly a quarter of the entire population compared with around 18% in 2017. This change in the age-composition of the population will have a significant economic impact. Older workers will make an increasing proportion of the potential labour force. In this note, we consider the impact of different labour force participation rates for older workers and explain the participation assumptions we will use in our UK suite of models in future.

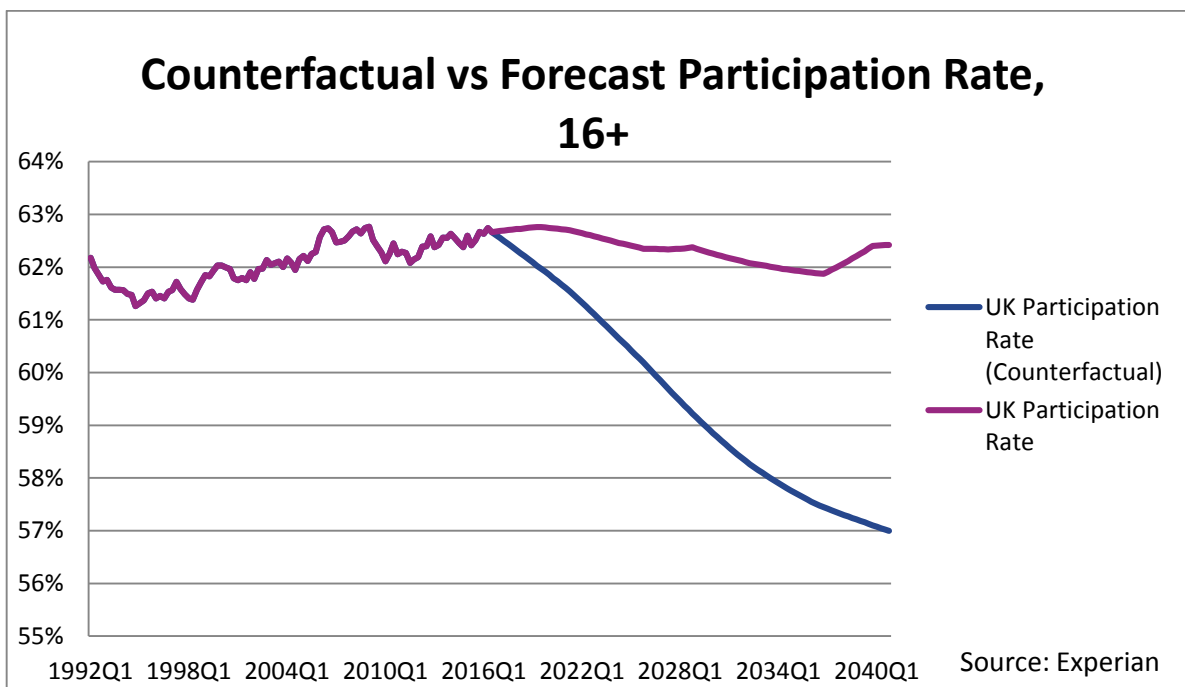
It will be convenient at this point to set out some key definitions:

- Participation Rates / Activity Rates: the proportion of the population either in employment or searching for employment.
- Working Age Population: the population above the age of 15 but below the current state retirement age for their gender.
- Subnational Population Projections: population projections set out by the Office of National Statistics using 2014 mid-year population estimates.
- Labour Force Survey: survey of the employment patterns of the UK population. It provides official measures of employment and unemployment.

Over the last few years, the ageing of the population has begun to markedly change the demographic profile of the UK. According to the 2014 Subnational Population Projections, the proportion of the population aged 16 and over that was older than 65 remained at around 20% between 1997 and 2010. However, baby boomers entering retirement has caused this ratio to increase rapidly from 2011. Longer life expectancy will sustain the rising proportion, projected to reach 30% by 2040.

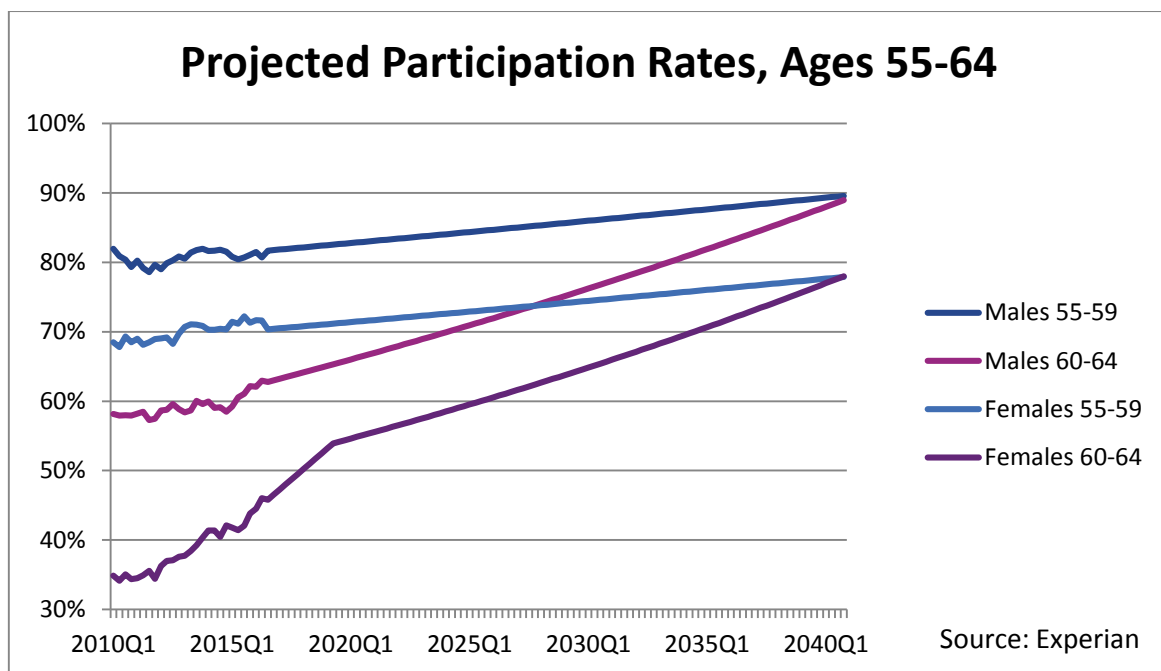


The impact of the ageing population can be seen in the participation rate chart below. The counterfactual (the blue line) is based on the assumption that older people will have the same participation rate in the future as they have in 2017. The overall participation rate for the population aged 16+ falls dramatically as older people – who have lower participation rates – make up an increasing part of the population. Such a scenario would lead to very slow labour force growth, growing at an annual average rate of only 0.19%. This would seriously limit the economic growth potential of the UK.



Based on our analysis of LFS economic activity rates by 5-year age bands below, we instead forecast that the overall UK participation rate will fall to just below 63% by 2040. The labour force is 5% larger than in the counterfactual scenario by the end of the forecast, reaching over 38 million people by 2040.

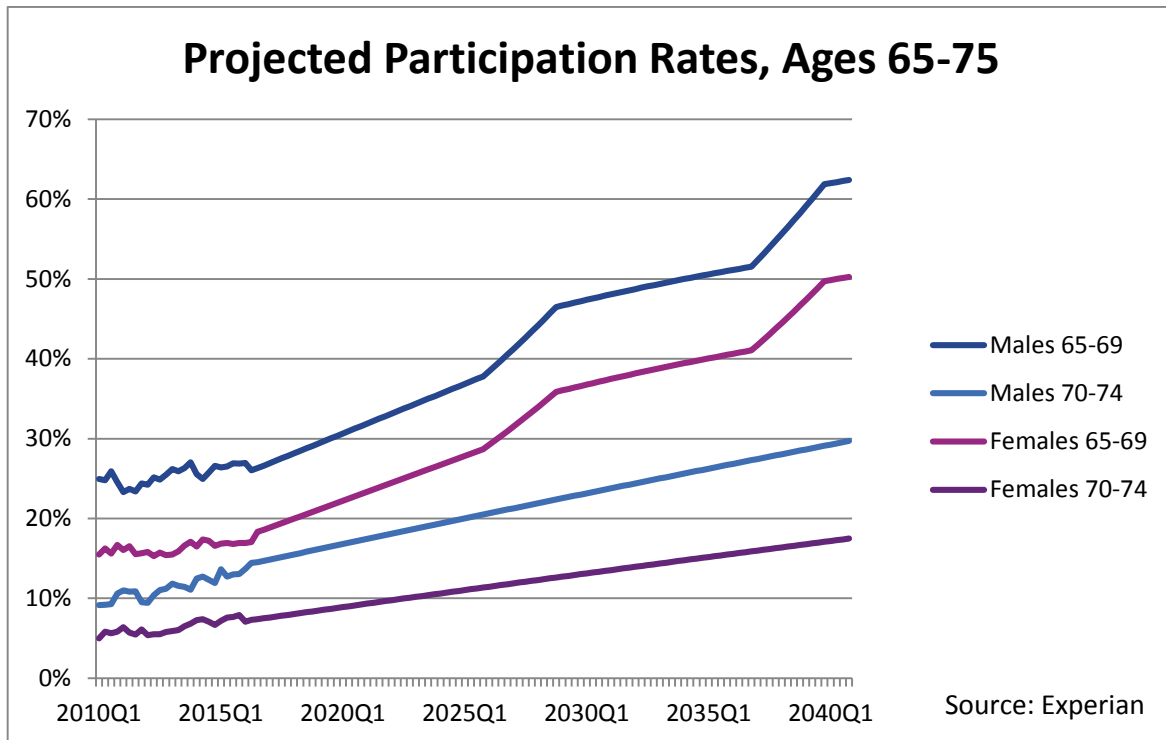
We expect to see increasing participation rates across all older bands for both men and women. As the UK economy becomes increasingly service-oriented, older people are inclined to continue working. Improving health standards also mean that people are able to participate in the labour force for longer and need to build up enough savings ahead of longer retirements. The option to receive pensions as a lump sum may even leave people needing to return to the labour force at a later stage should they fail to adequately manage their finances.



Policy changes have also begun to influence participation rates. The default retirement age has already been phased out and the State Pension Age (SPA) is gradually being increased. The SPA for women began to increase from 60 to 65 in 2010. An increase in the female participation rate for those aged 60-65 can be seen in the historical LFS data from around 2011. We have forecast that the rate will grow such that the gender gap in this age band approaches the corresponding gap for the 55-59 age band. The female participation rate also grows because cohorts displace one another over time and women born in later generations have had a higher propensity to work. As the SPA for both genders reaches 67 by 2028 and health standards improve, we see fewer people leaving the labour force between the ages of 60-64. The impact of the SPA policy changes can also be seen on the 65-69 age band.

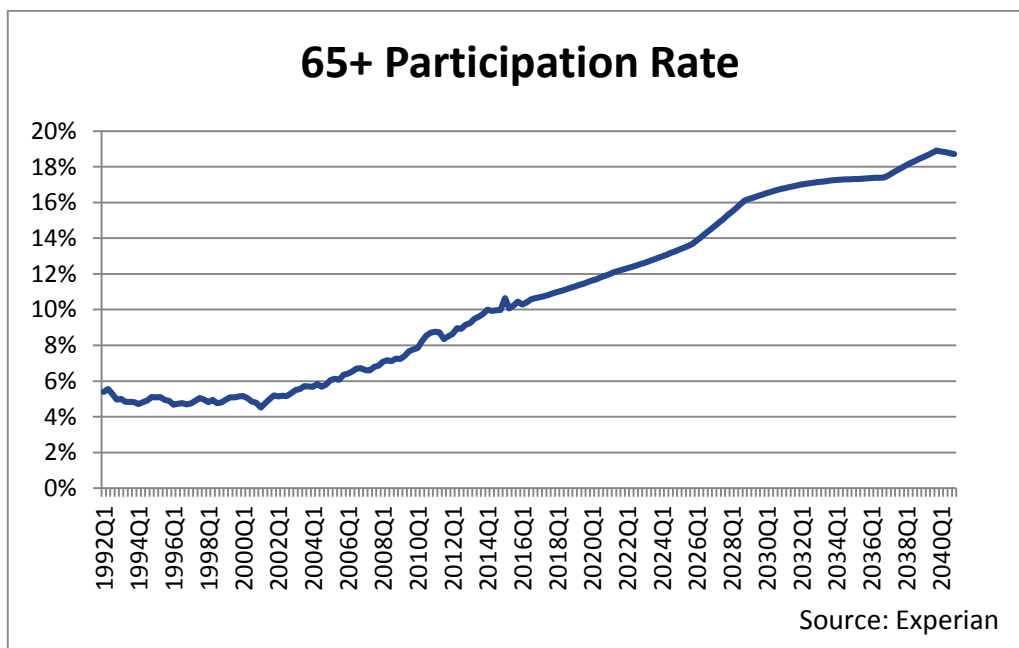
Under the current law, the State Pension age is due to increase to 68 between 2044 and 2046. Following a recent review, however, the government announced plans to bring this timetable forward. The State Pension age is now set to increase to 68 between 2037 and 2039. The policy change was announced as of July 2017, after the release of the OBR's forecasts, but before the publication of this report. As such, we have incorporated

this change into our forecasts for the 65-69 year age groups, as seen below, but it does not currently feature in the OBR's projections.

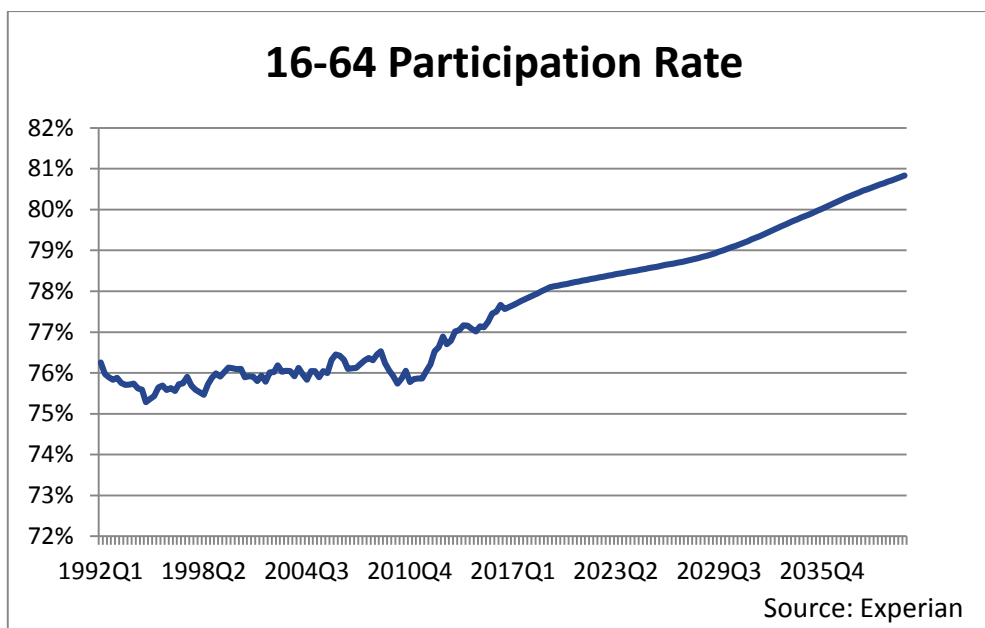


Our participation rates grow such that, by the end of the forecast, the rate for each age band by gender approaches that of the age band below at the beginning of the forecast.

There is ageing within the 65-plus population group. For example, the population older than 90 will more than triple by 2040. We forecast that the overall 65-plus participation rate will increase to 19% by 2040, with growth rates fluctuating mainly due to policy changes and population growth across age bands.



The increase in the activity rate of those aged 16 to 64 is due largely to the growing participation rate of those aged 55-59 and 60-64. It also accounts for policies designed to encourage more people to take part in the labour force.



We can apply this analysis to the regional and local level as well. The impact on our regional forecasts is that Greater London is the only area without a consistently falling participation rate between 2017 and 2037. Greater London has the youngest population of the UK regions. By 2037 only 24% of the population in London will be 65 or over, while all other regions will see this proportion rise to above 40%.

Overall Participation Rate (%) by Region	2017Q1	2022Q1	2027Q1	2032Q1	2037Q1
UK	62.7	62.4	61.9	61.6	61.5
East Midlands	61.3	60.8	60.2	59.7	59.5
East of England	63.4	63.2	62.8	62.7	62.6
Greater London	68.6	68.7	68.6	68.7	68.6
North East	59.5	58.9	58.0	57.5	57.3
Northern Ireland	59.0	58.3	57.5	56.8	56.2
North West	61.4	61.0	60.4	60.0	59.8
Scotland	61.0	60.6	59.9	59.4	59.1
South East	64.1	63.7	63.2	62.9	62.7
South West	62.5	62.1	61.6	61.3	61.2
Wales	59.5	59.1	58.5	58.2	58.1
West Midlands	60.2	60.0	59.6	59.5	59.4
Yorkshire and The Humber	61.6	61.2	60.6	60.2	60.0

Source: Experian