www.pwc.co.uk/economics

UK Economic Outlook

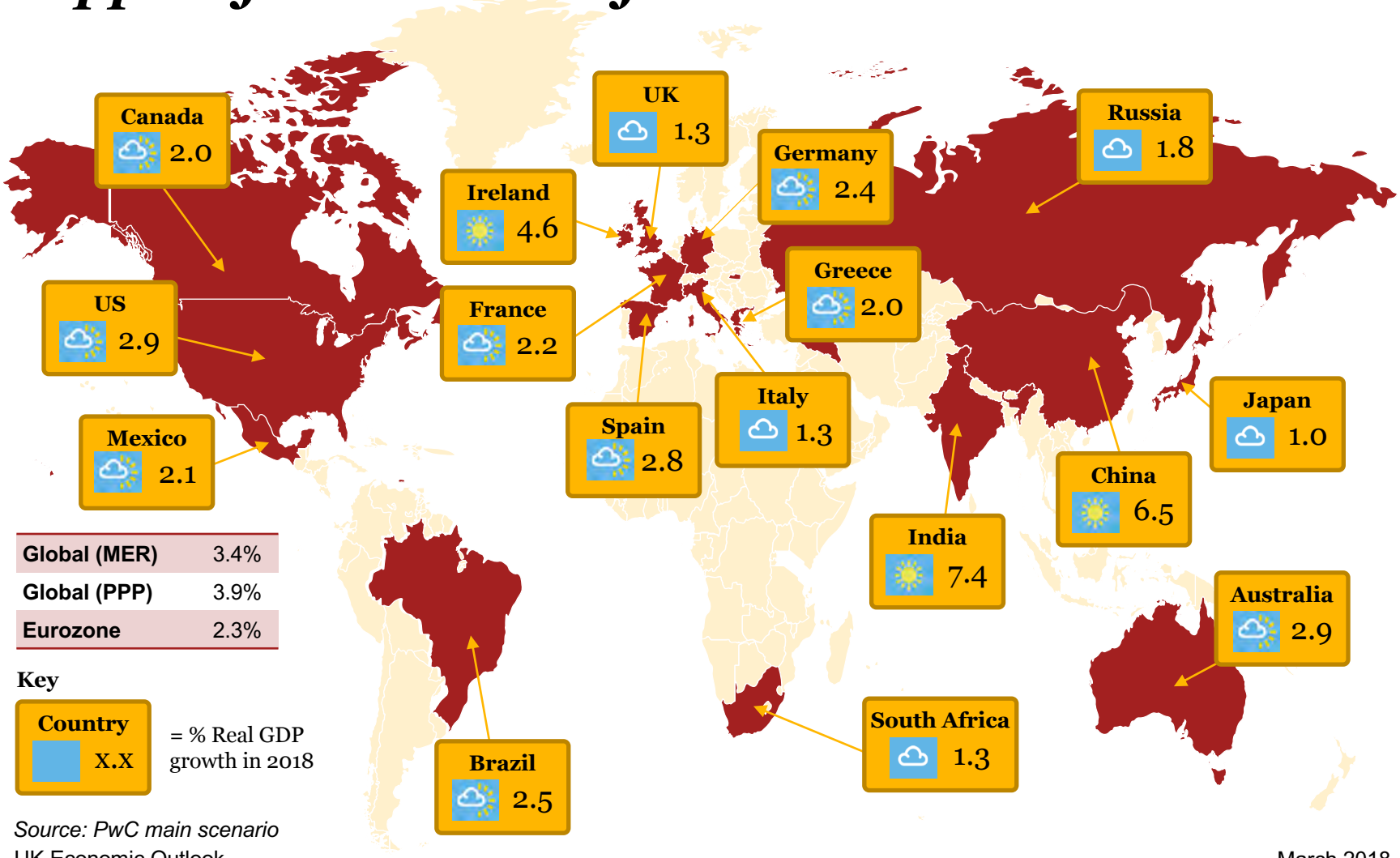
July 2018

pwc

Contents

Global outlook

Global growth will accelerate in 2018 with support from most major economies



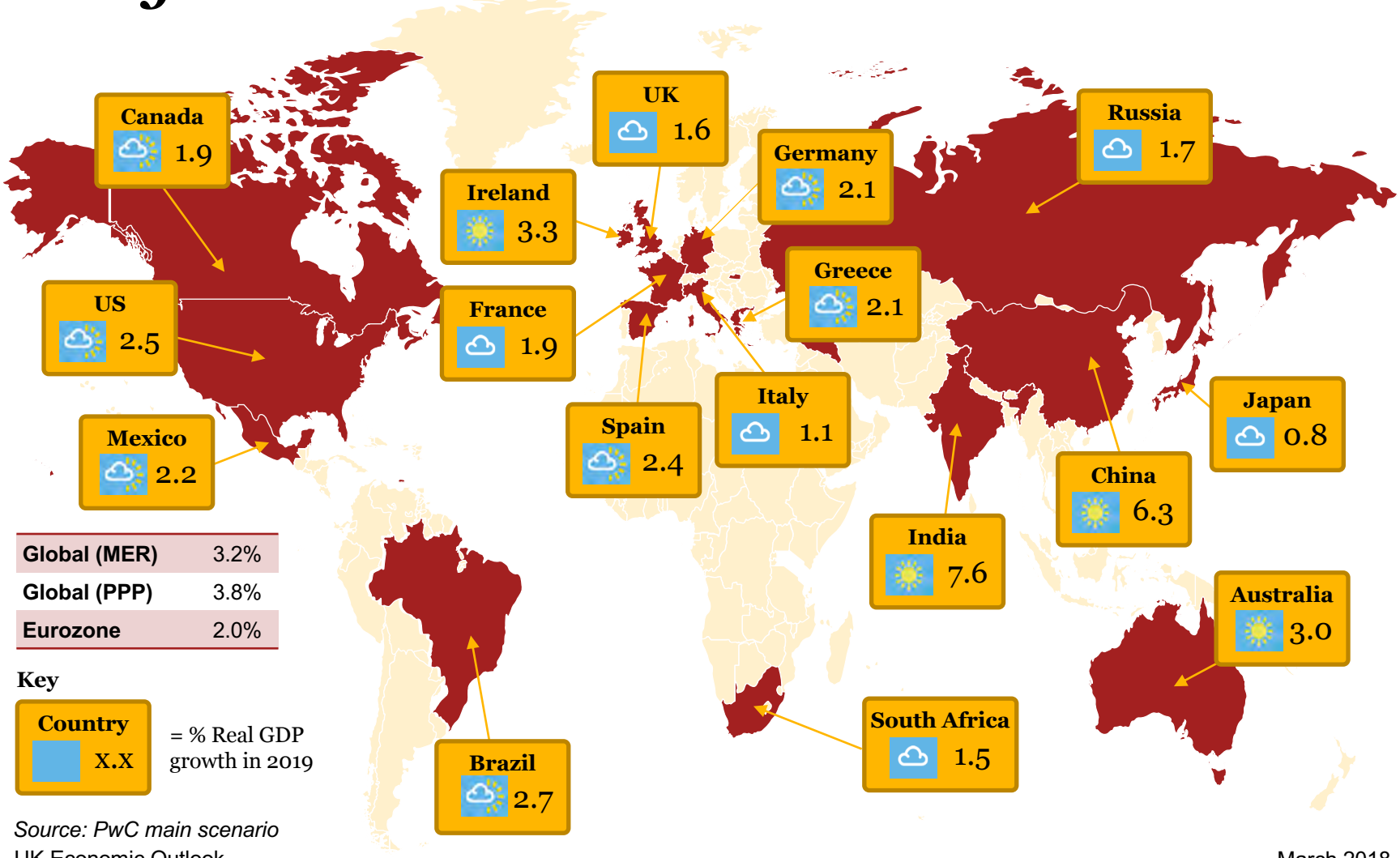
Global (MER)	3.4%
Global (PPP)	3.9%
Eurozone	2.3%

Key

Country X.X = % Real GDP growth in 2018

Source: PwC main scenario

Global growth should also remain strong in 2019, though US could slow as interest rates rise



Global (MER)	3.2%
Global (PPP)	3.8%
Eurozone	2.0%

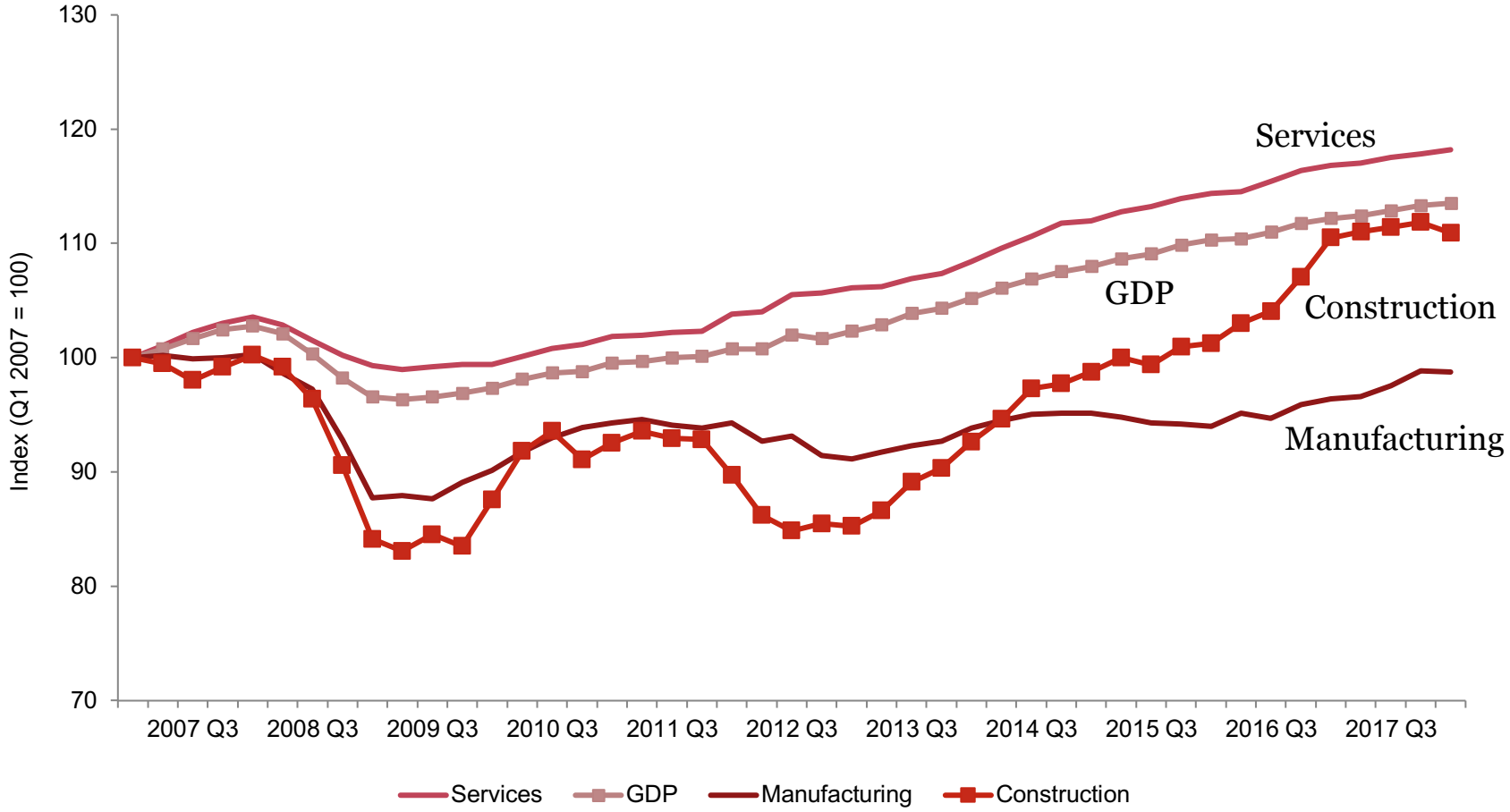
Key

Country X.X = % Real GDP growth in 2019

Source: PwC main scenario

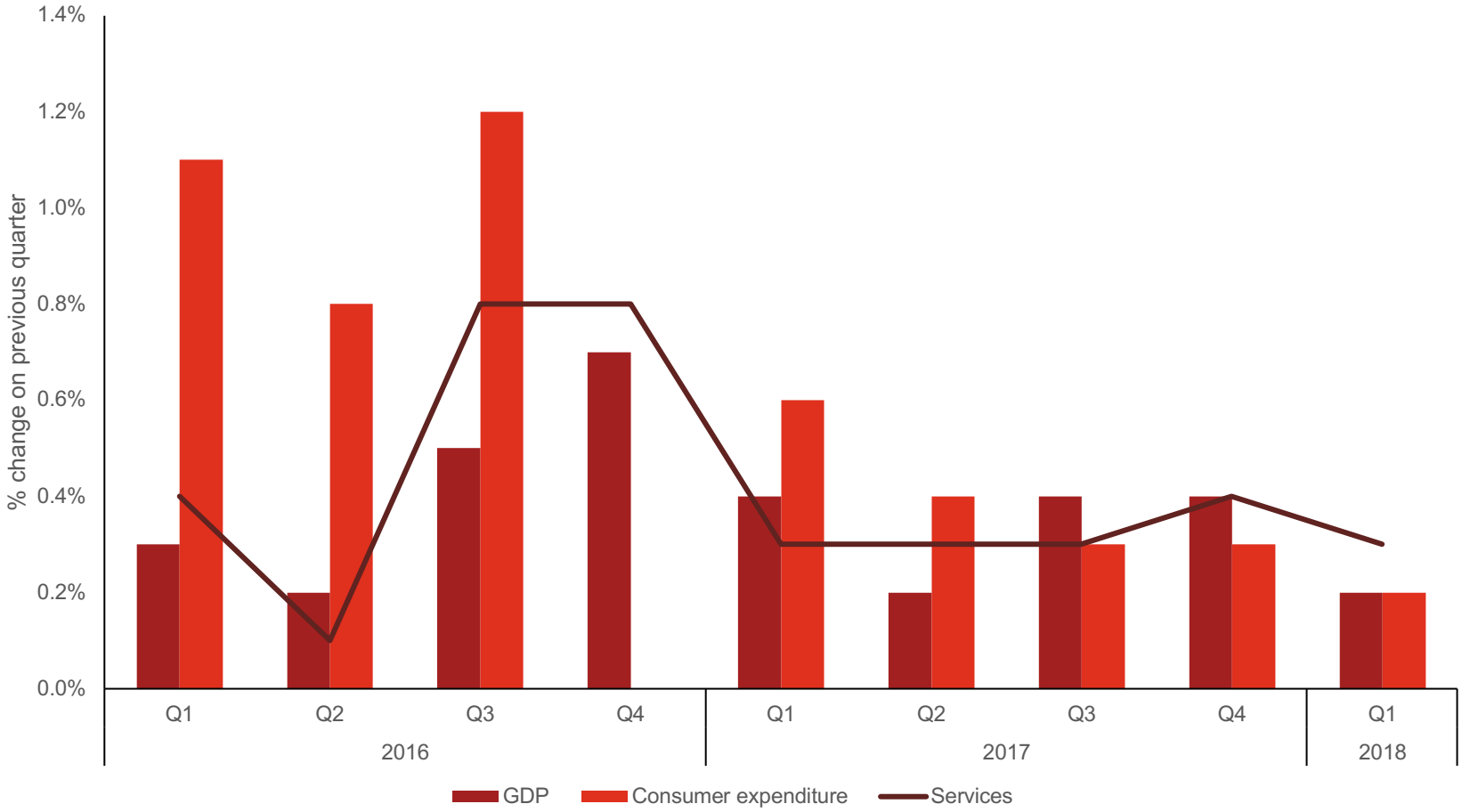
UK economic prospects

The services sector has driven the recovery from the financial crisis, while manufacturing and construction have been weaker and more volatile



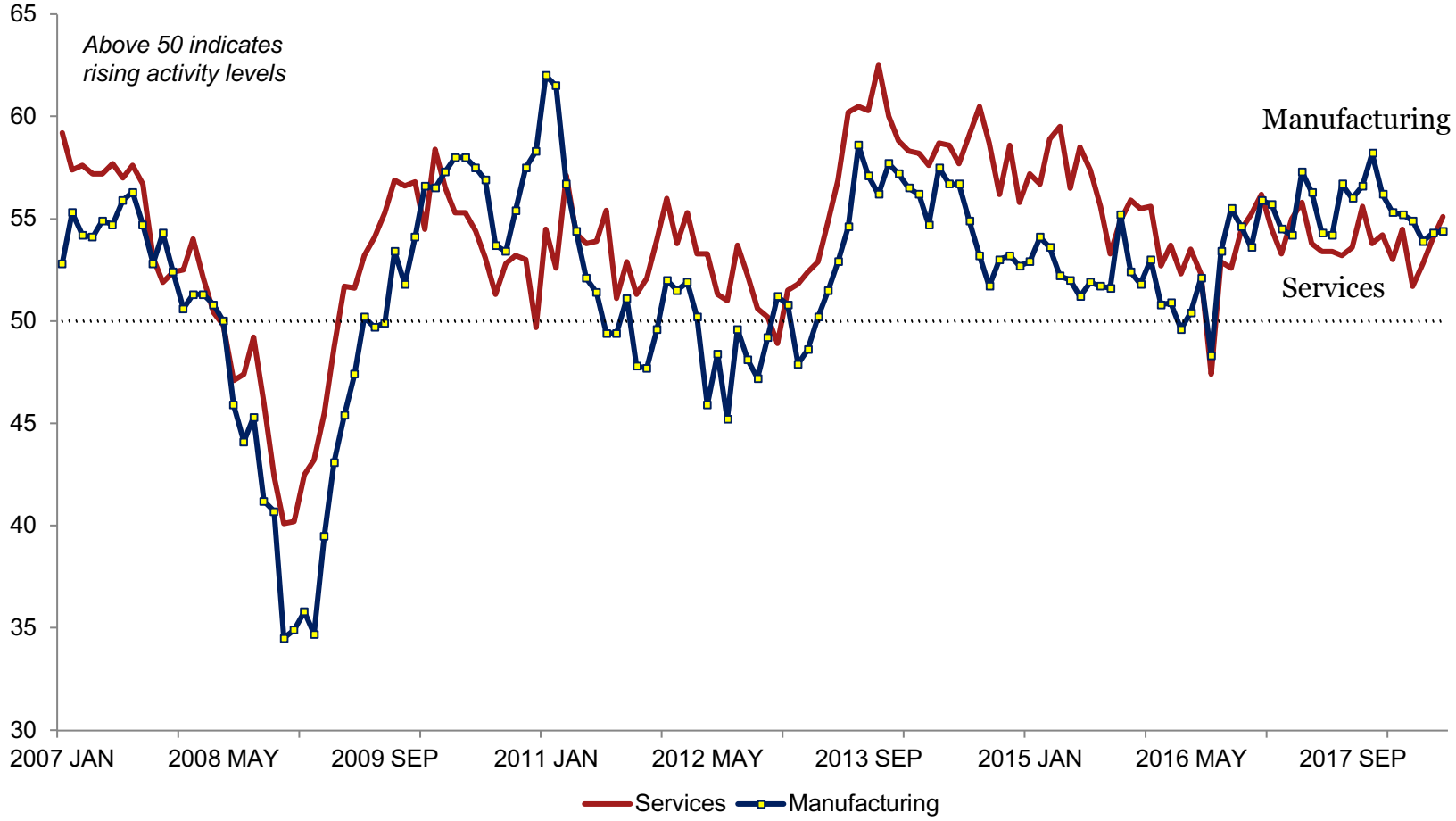
Source: ONS

GDP growth moderated in 2017 due primarily to slower growth in consumer spending and services sector output



Source: ONS

Manufacturing PMI shows relatively strong growth, but services PMI has moderated from levels seen in 2014-15

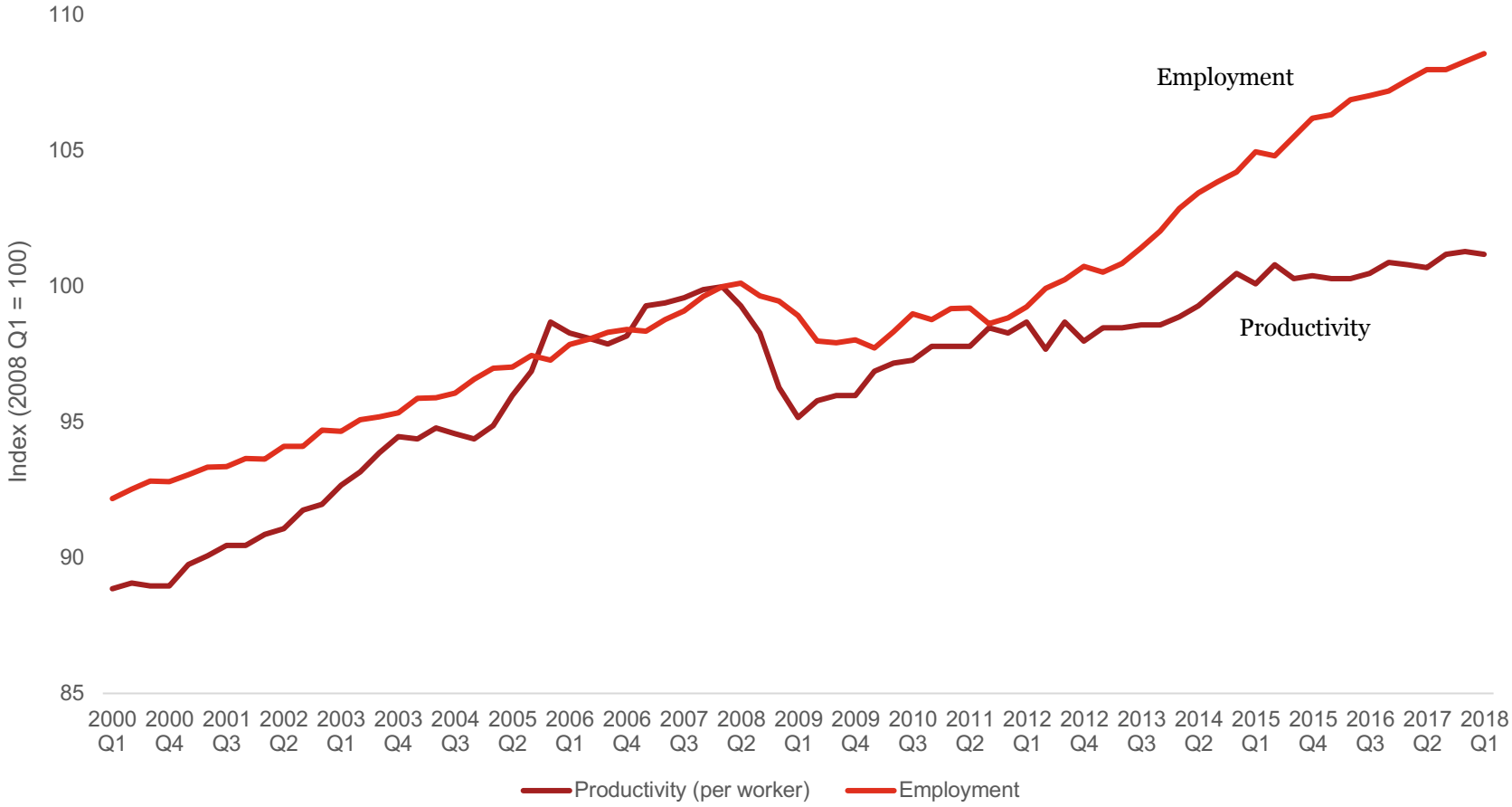


Source: Markit/CIPS

Sterling has lost some ground against the US dollar in 2018, and remained weak versus the euro

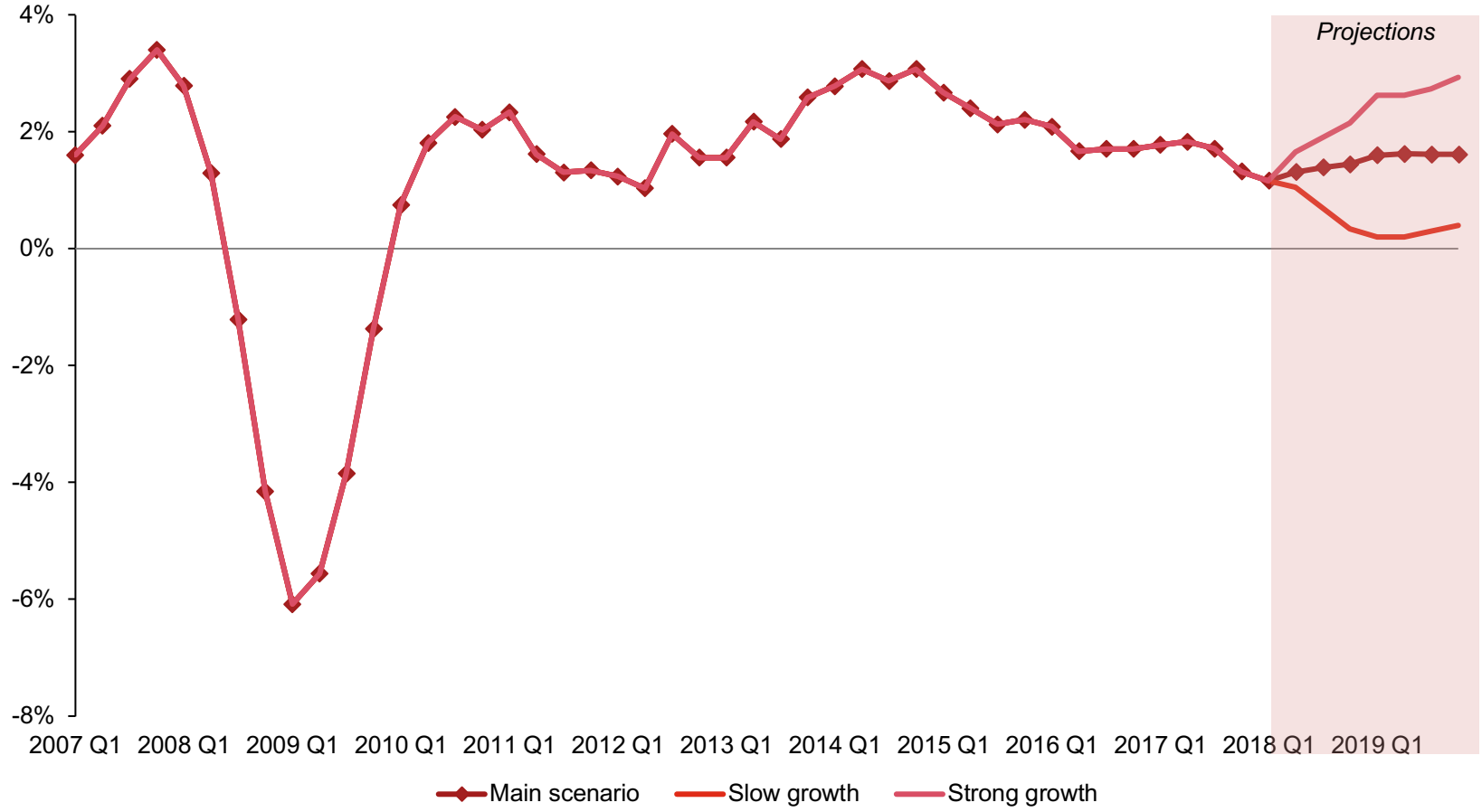
Source: Bank of England

The economy has created a record number of jobs in recent years, but productivity growth has been subdued since the financial crisis, depressing real wage growth



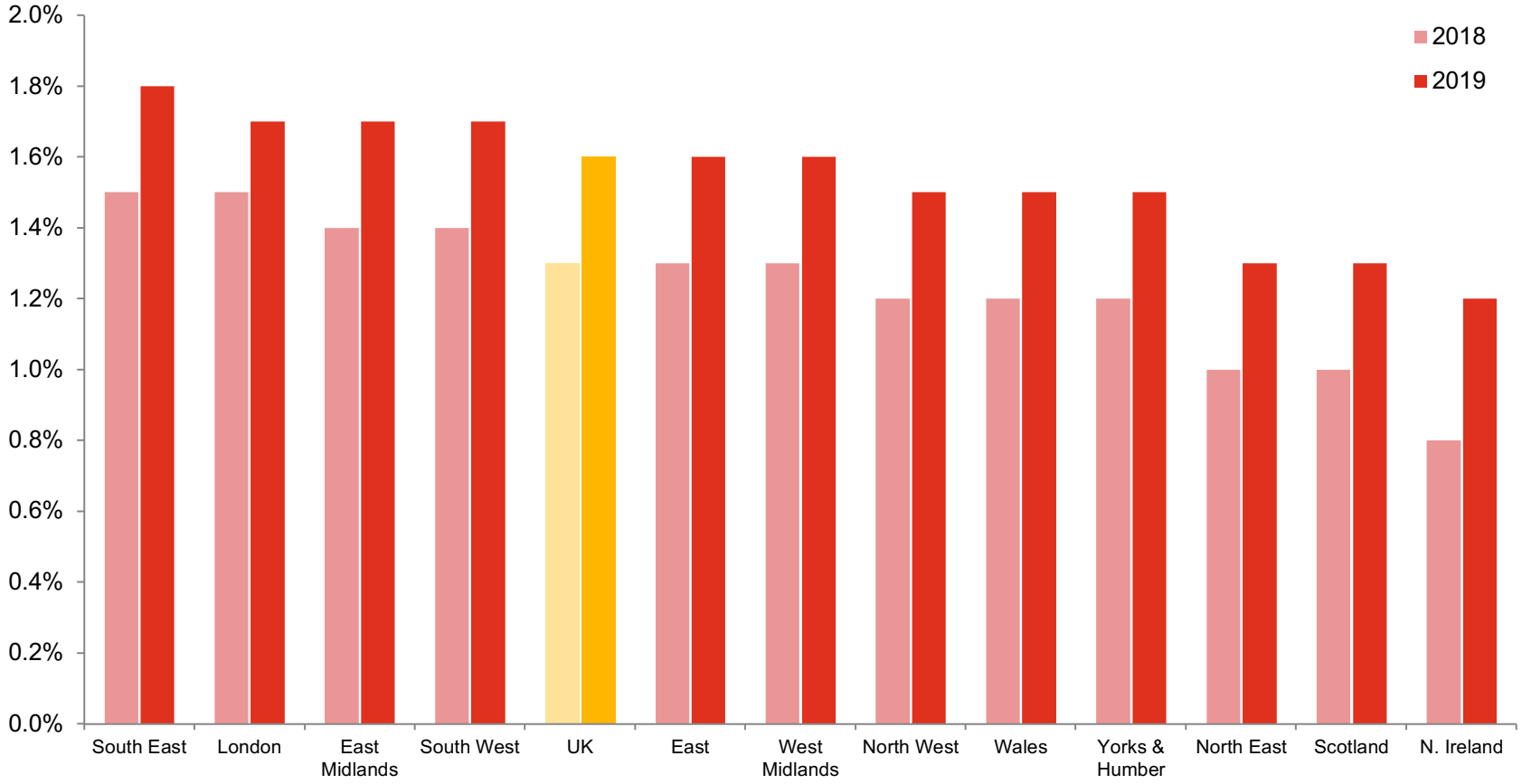
Source: ONS

Economic growth will remain modest in 2018-19 with considerable Brexit-related uncertainty around our main scenario



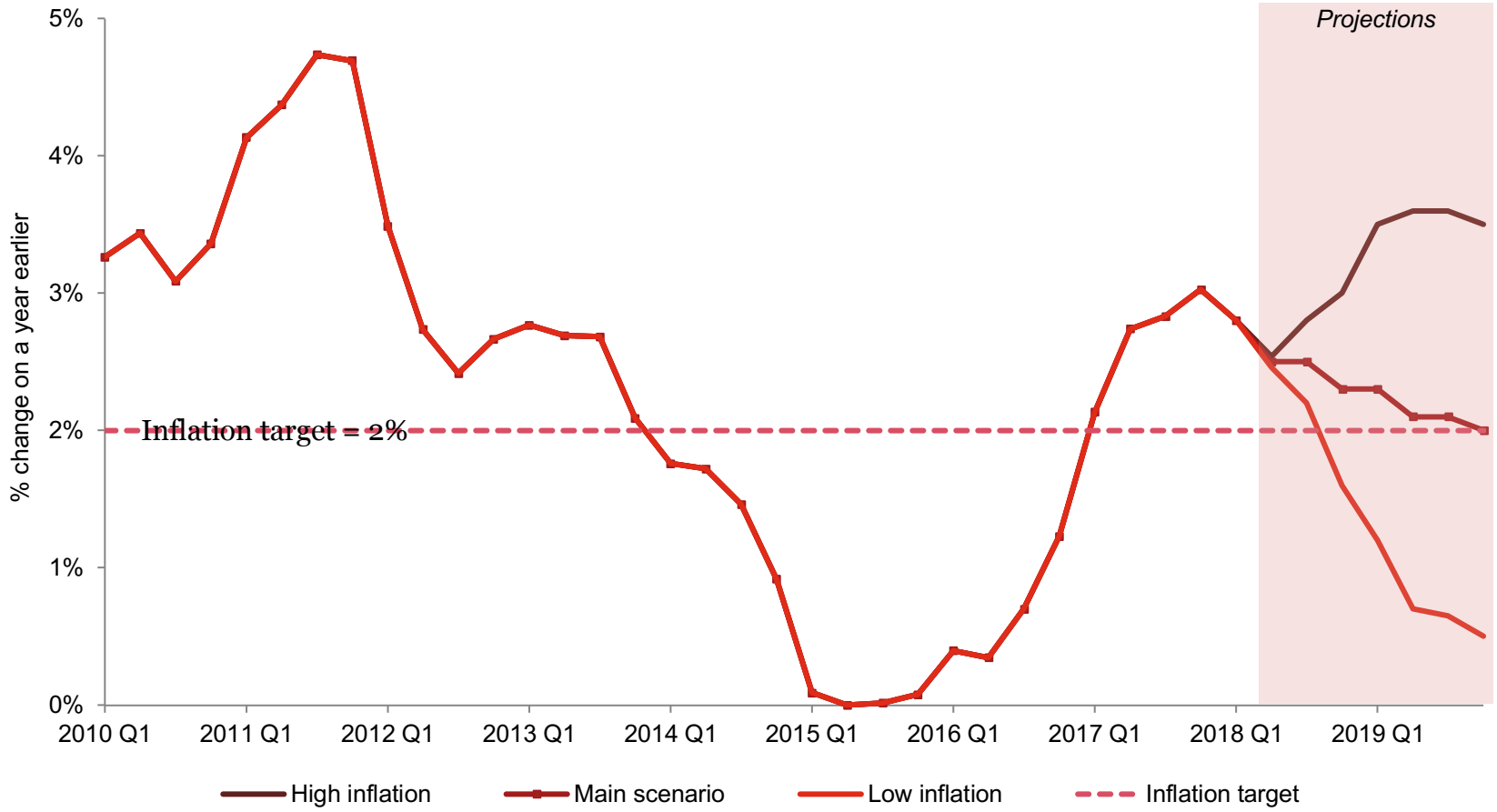
Source: ONS, PwC scenarios

Growth projected to be similar across most regions, though Northern Ireland, Scotland and the North East may lag behind. London is no longer clearly leading the pack.



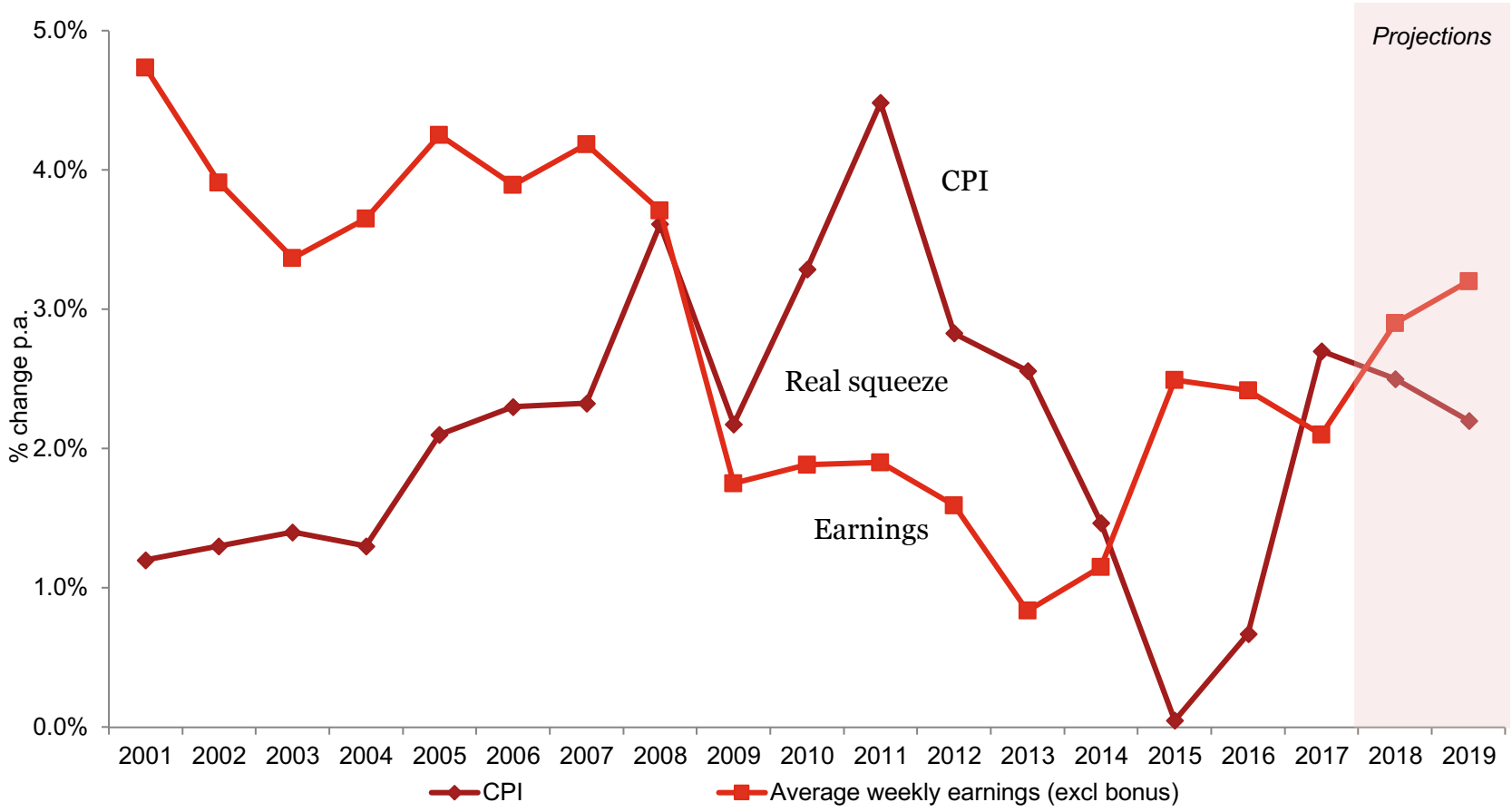
Source: PwC analysis

In our main scenario we expect UK inflation to return to the target rate of 2% by the end of 2019



Source: ONS, PwC scenarios

Average earnings have started to grow faster than prices again, but real earnings growth remains modest by pre-crisis standards



Source: ONS, PwC Analysis

Summary: UK economic prospects and policy implications

1. In our main scenario, we project UK growth to continue at moderate rates of around 1.3% in 2018 and 1.6% in 2019

2. Europe and the rest of the world economy have strengthened, but the UK will lag behind in 2018-19 due to the drag on domestic demand from Brexit-related uncertainty. Rising interest rates in the US could also dampen global growth.

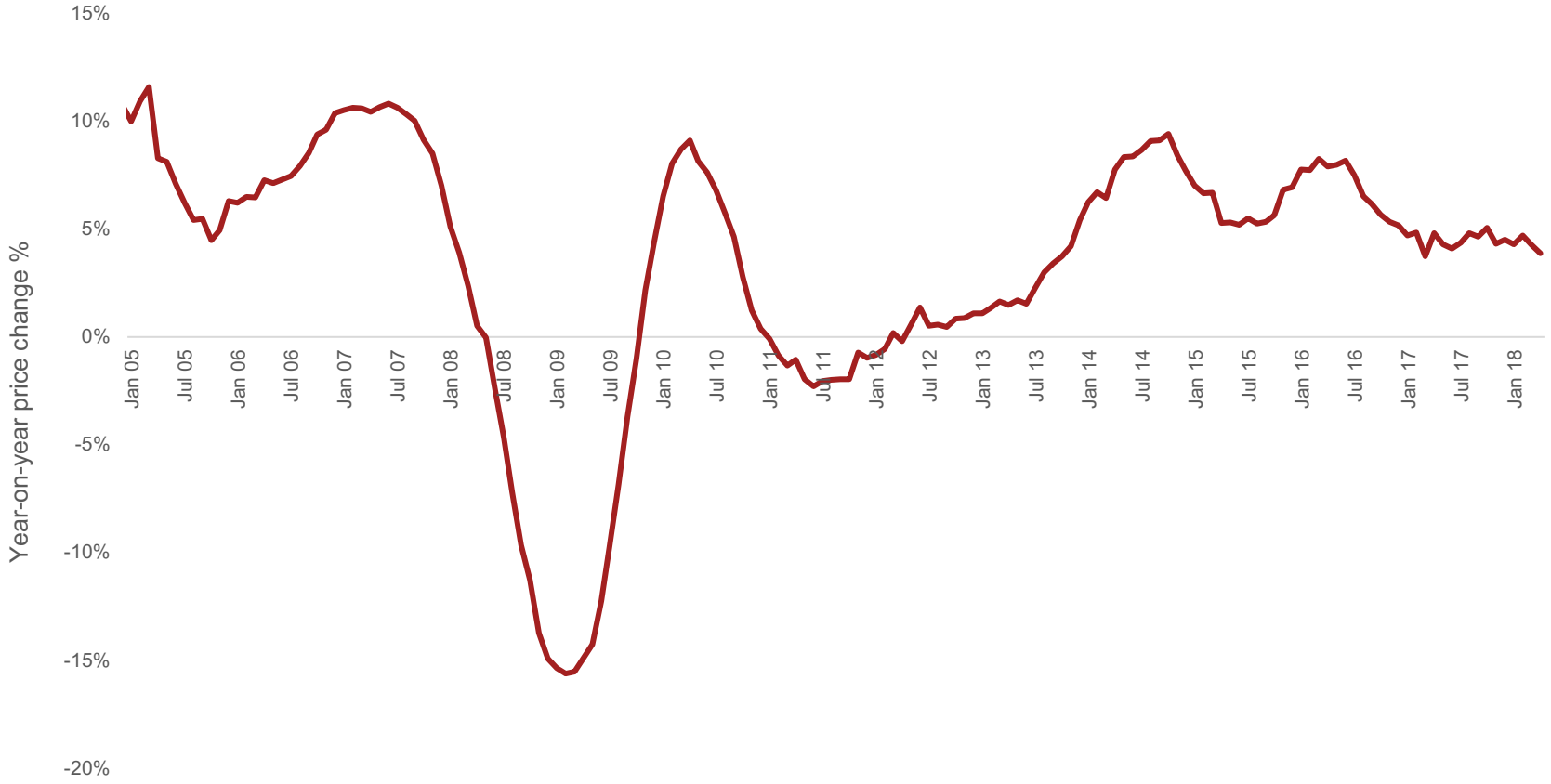
3. A key factor behind the UK slowdown has been subdued consumer spending growth and we expect this to continue in 2018-19. Real incomes have been squeezed by higher inflation, and there are limits to how much further borrowing can rise to fund spending.

4. Real wage growth should return to modestly positive territory in 2019, but the boost to growth will be offset by slower jobs growth in that year.

5. The Bank of England is expected to continue with gradual interest rates rises over the next two years, but the Chancellor may ease fiscal policy somewhat in his Autumn Budget, in particular to help to fund the increased spending on the NHS announced in June.

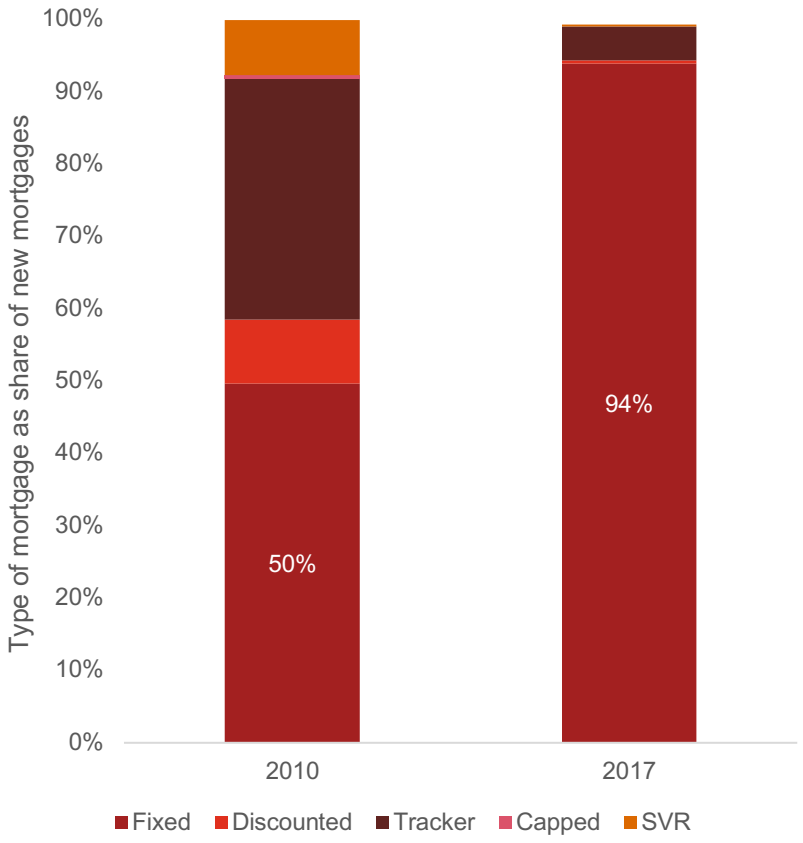
UK housing market outlook

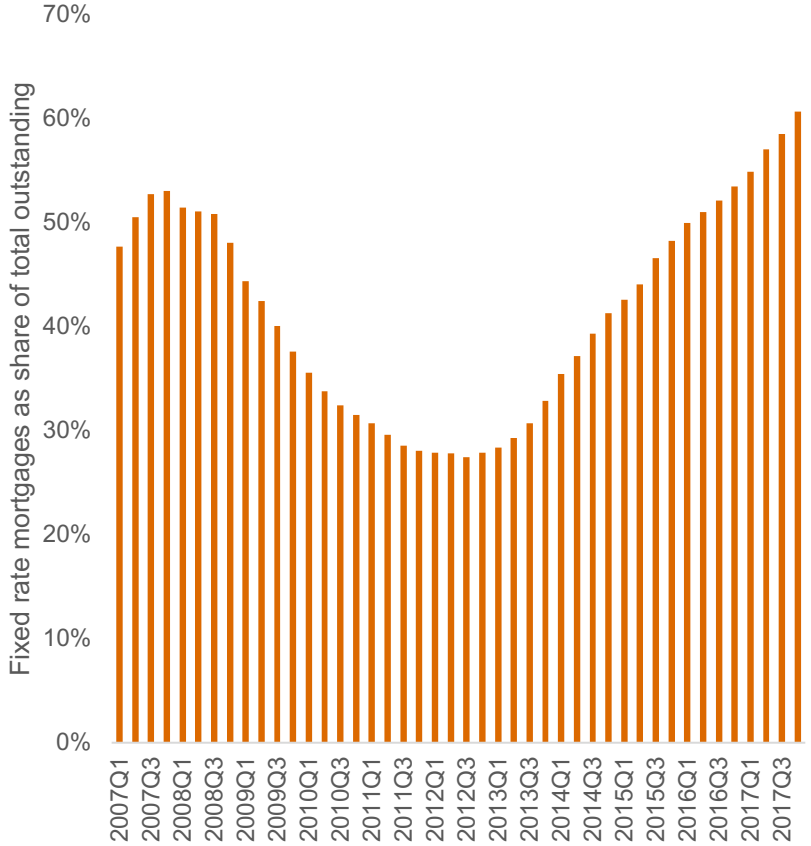
Average house price inflation remained fairly steady in 2017, but a further weakening in price growth has occurred in early 2018



Source: ONS, Land Registry

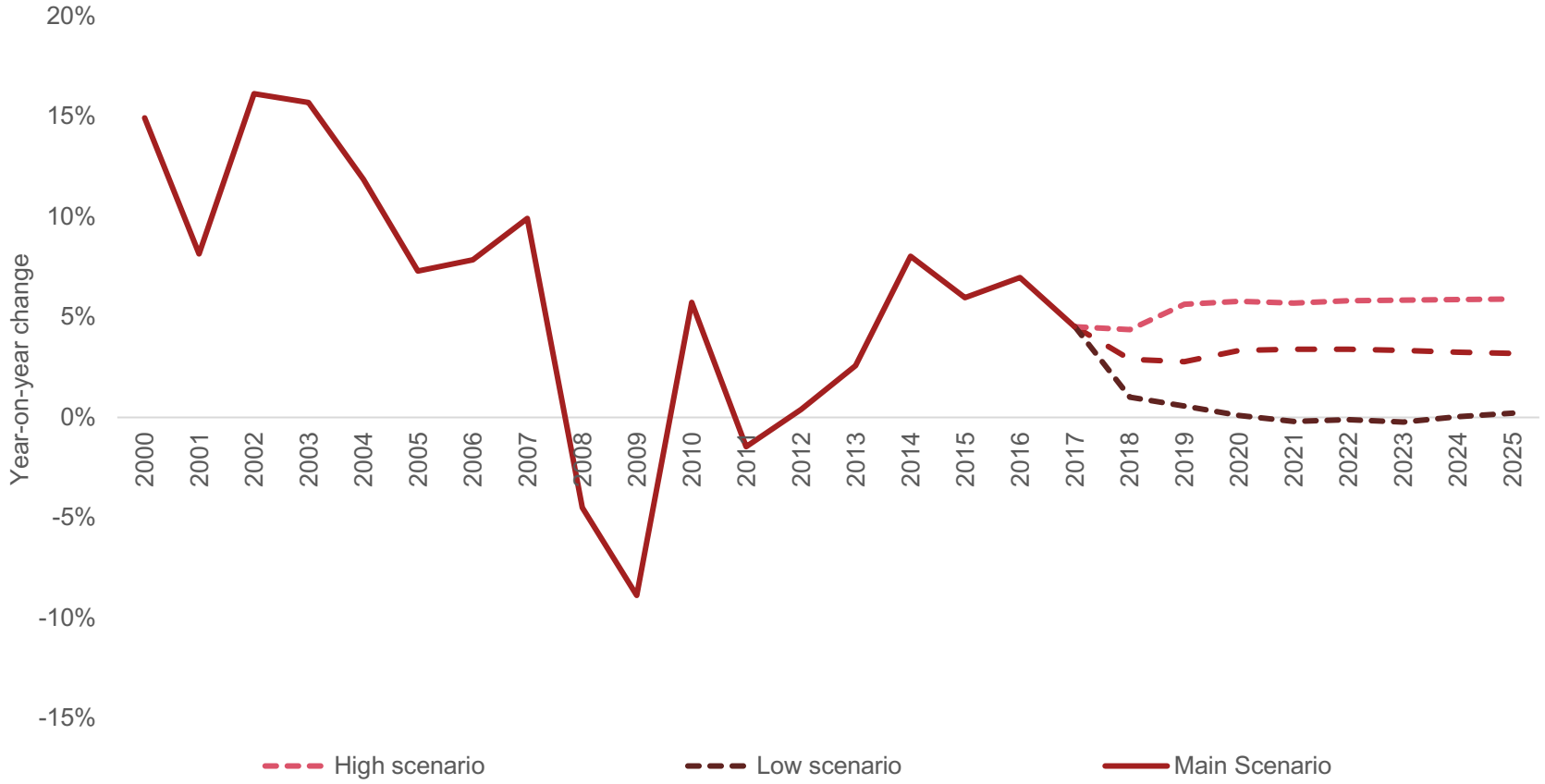
The share of fixed-rate mortgages has increased significantly since 2010, which will delay the squeeze on household budgets from any future interest rate rises





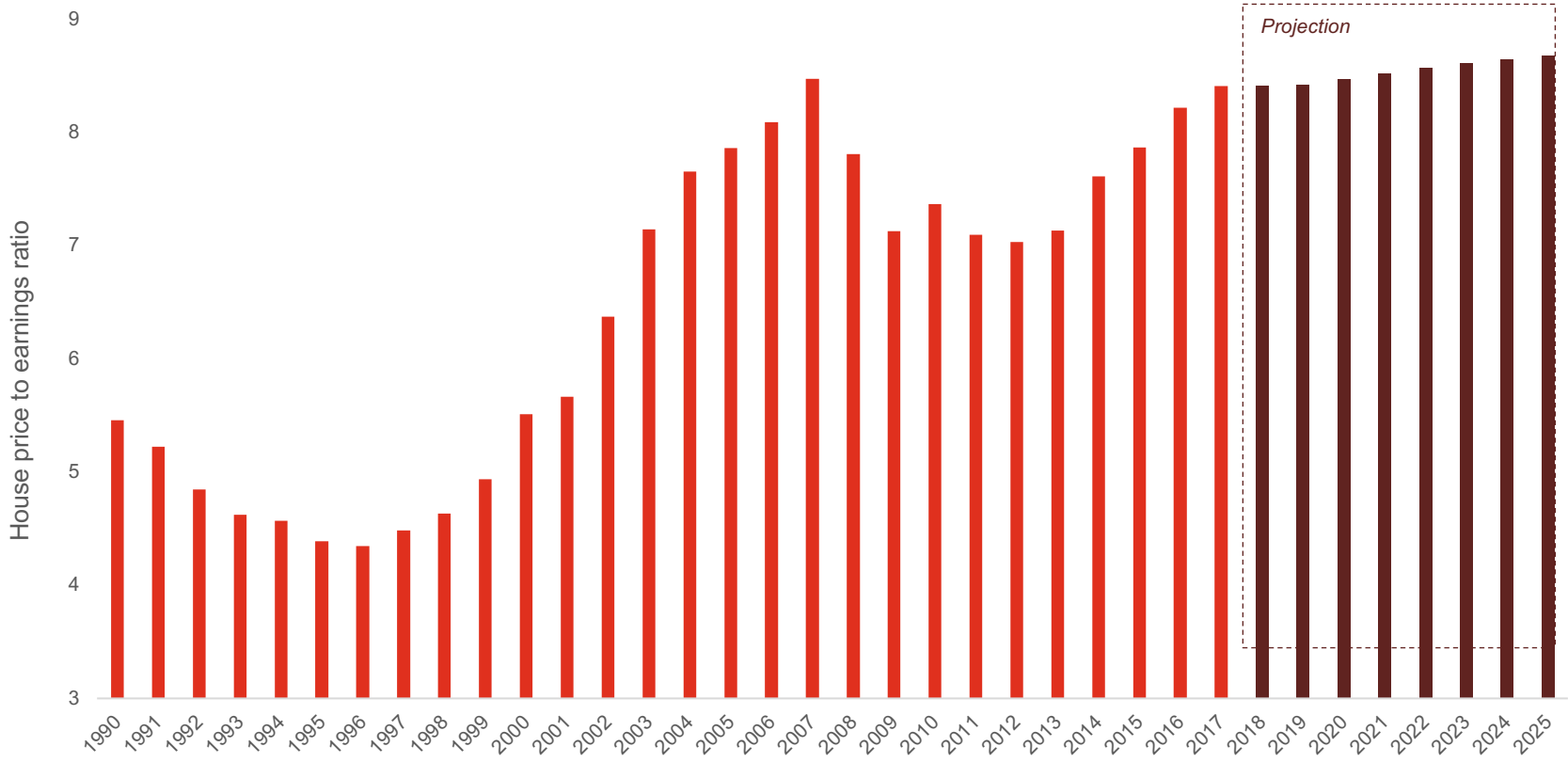
Source: Council of mortgage lenders

UK house price growth is projected to remain relatively steady at around 3% in our main scenario, but there are significant uncertainties around this projection



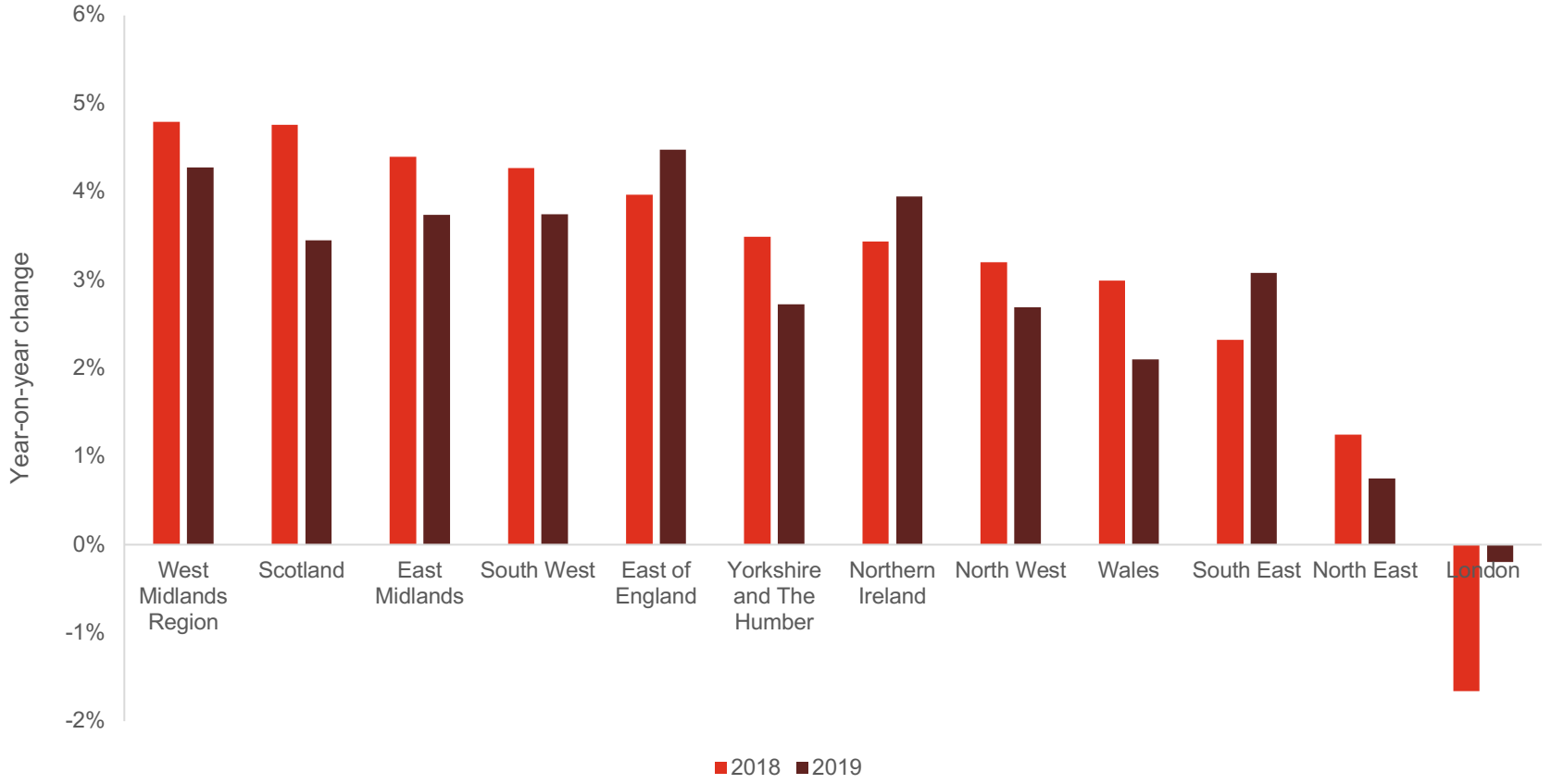
Source: ONS, PwC analysis

The house price-to-earnings ratio rose rapidly in 2013-17, but is projected to be more stable over the next few years (although remaining high by historical standards)



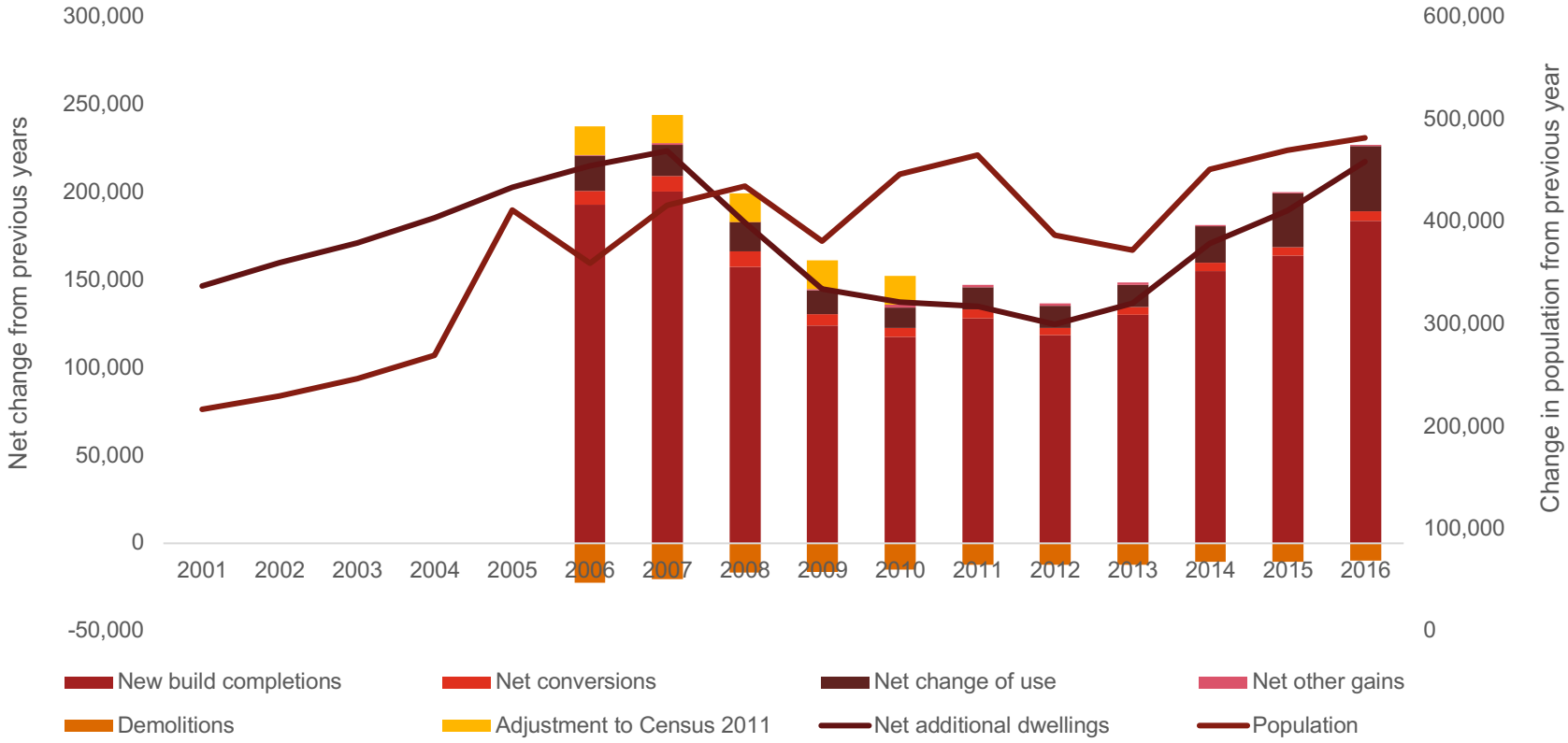
Source: ONS, PwC analysis
Note: Earnings are annualised average weekly earnings for the whole UK economy

House price inflation is projected to be positive in 2018-19 for most regions, but prices may fall back in London



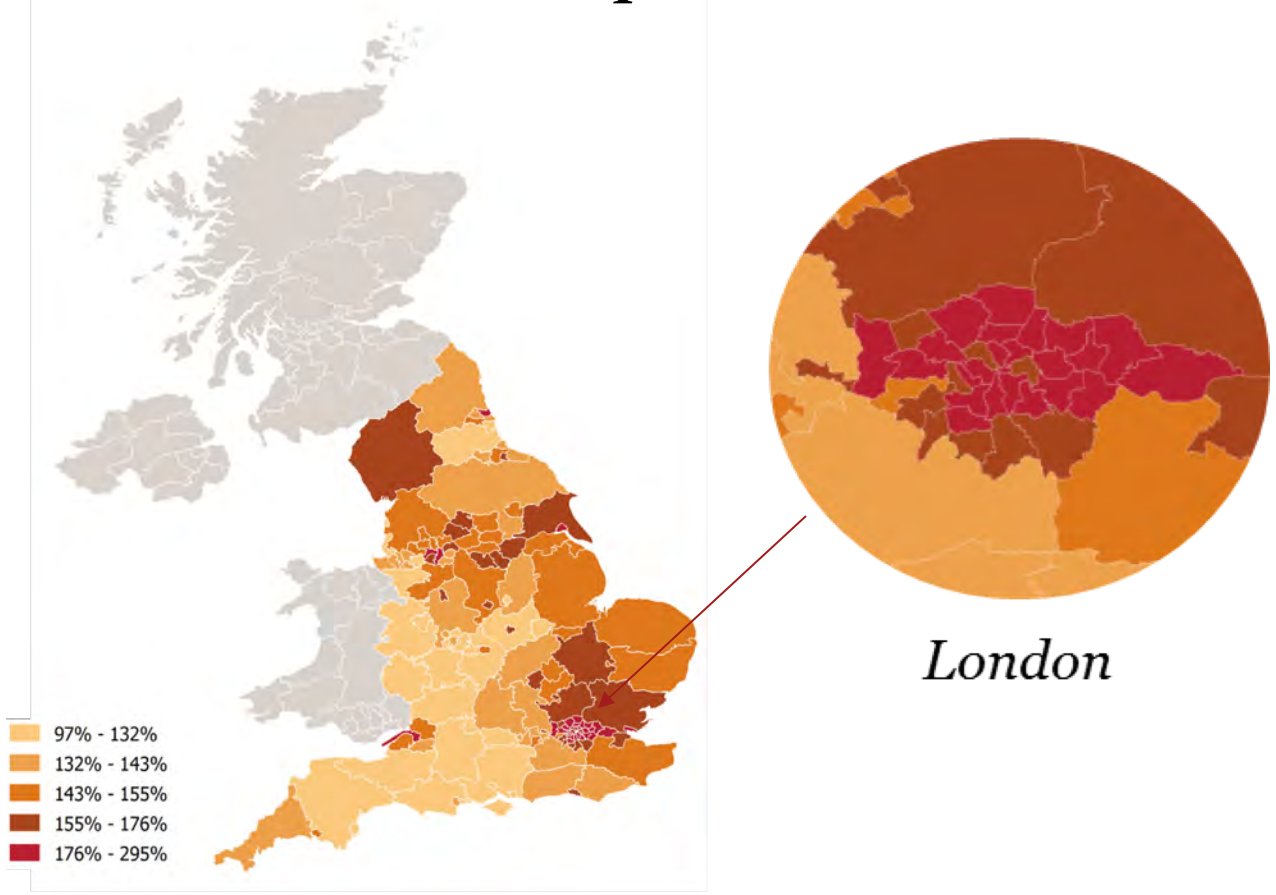
Source: PwC analysis

Growth in the number of new dwellings has returned to a similar level as prior to the financial crisis



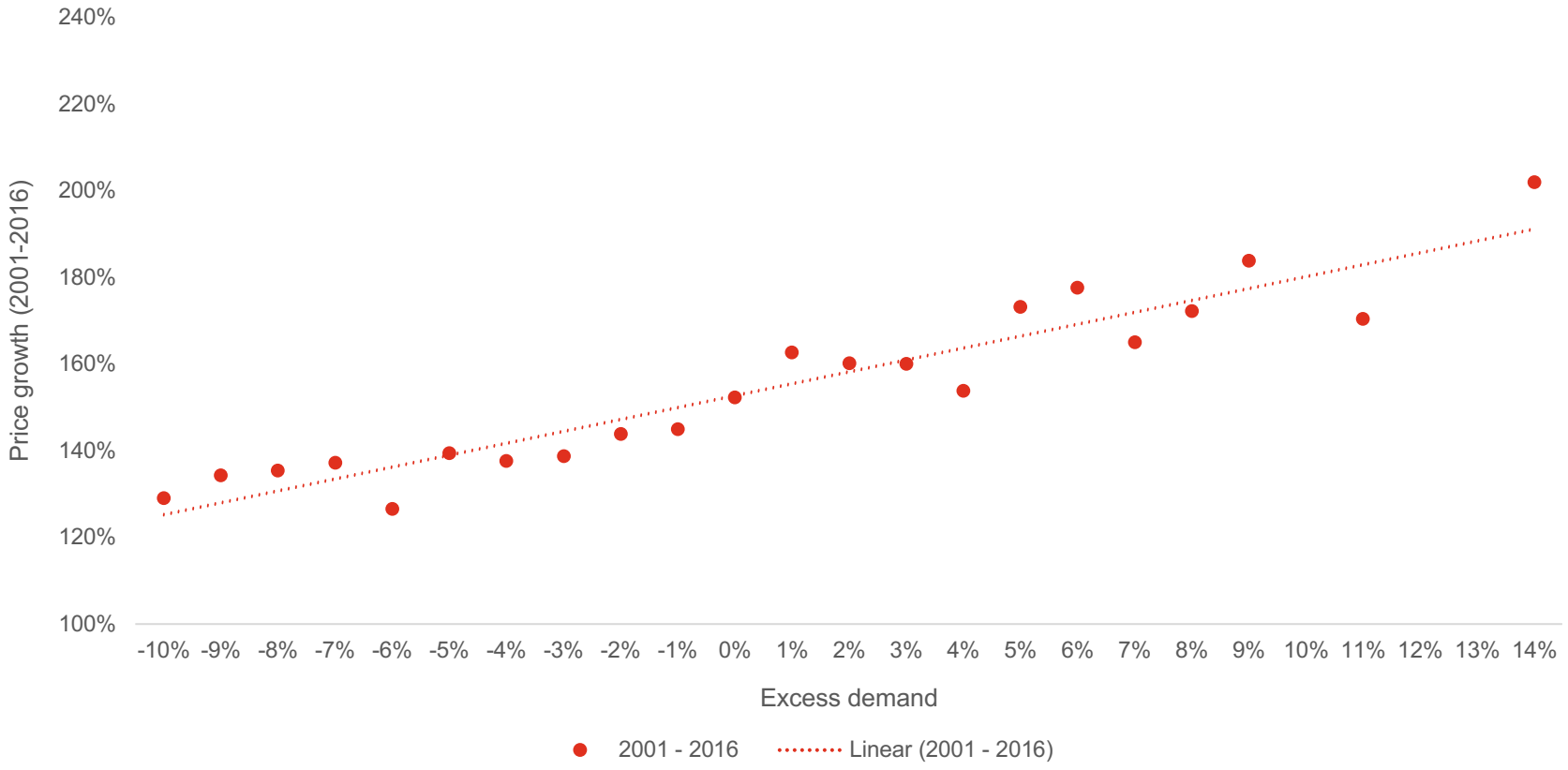
Source: ONS, DCLG, PwC analysis
Note: Data for change in dwellings by component is only available from 2006.

House price inflation varied considerably across England in 2001-16, with London local authorities seeing the fastest house price increases over this period



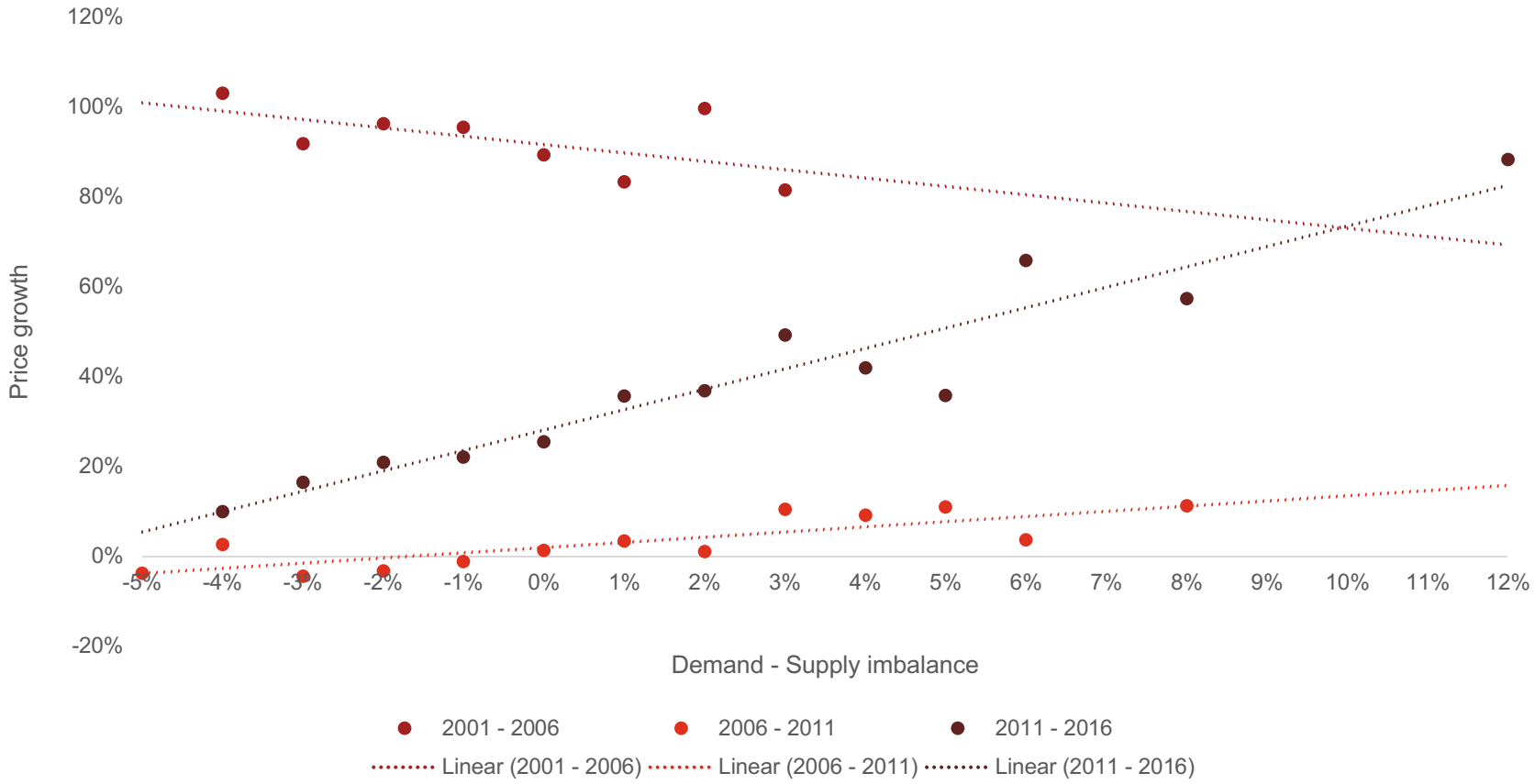
Source: ONS and Land Registry, PwC analysis
Note: analysis covers period 2001-2016.

Local authorities with excess housing demand growth also tended to experience larger house price rises in 2001-16



Source: ONS, DCLG, PwC analysis
Note: We exclude excess demand groups with fewer than two observations.

The relationship between excess demand and house price growth has changed over time, becoming positive in 2006-11 and stronger since 2011



Source: ONS, DCLG, PwC analysis

Population grew faster than housing stock in around half of local authorities in England, and in 85% of those in London

Source: ONS, DCLG, PwC analysis

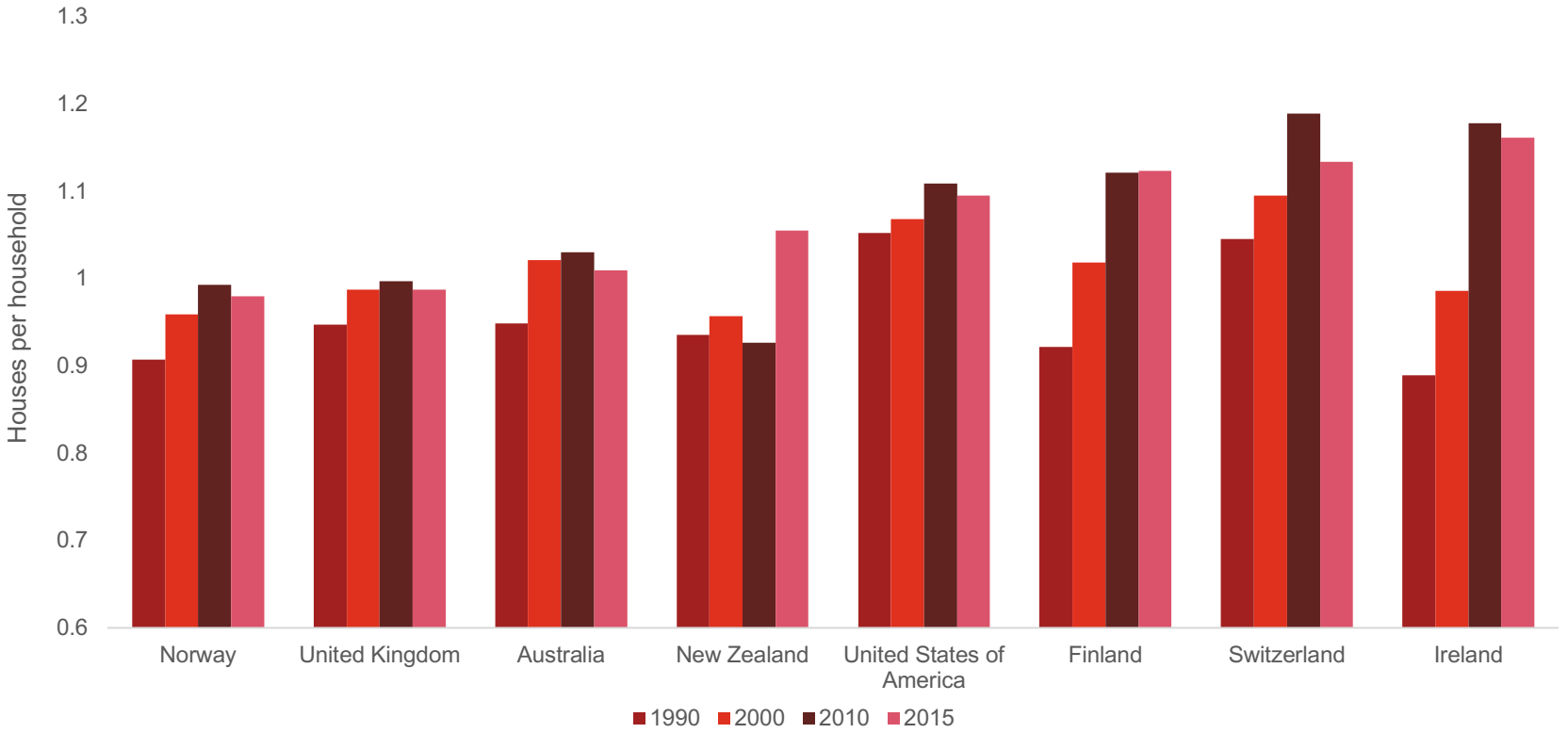
Housebuilding needs to be focused in areas of population growth, and 110,000 additional homes were needed in London in 2011-16 to match growth in demand

Local Authority (London)	Excess demand	Price Growth	Housing shortfall
Tower Hamlets	12%	60%	12,500
City of Westminster	10%	63%	11,500
Camden	9%	38%	9,000
Islington	8%	56%	7,500
Kingston upon Thames	8%	60%	5,000
London (including all boroughs)	***3%***	***61%***	***110,000***

Local Authority (rest of England)	Excess demand	Price Growth	Housing Shortfall
Exeter	5%	18%	3,000
Guildford	5%	37%	3,000
Oxford	5%	45%	3,000
Runnymede	5%	42%	2,000
Manchester	5%	23%	10,000

Source: PwC analysis of ONS and DCLG data (numbers rounded to nearest percent or thousand)
Note: City of London is excluded

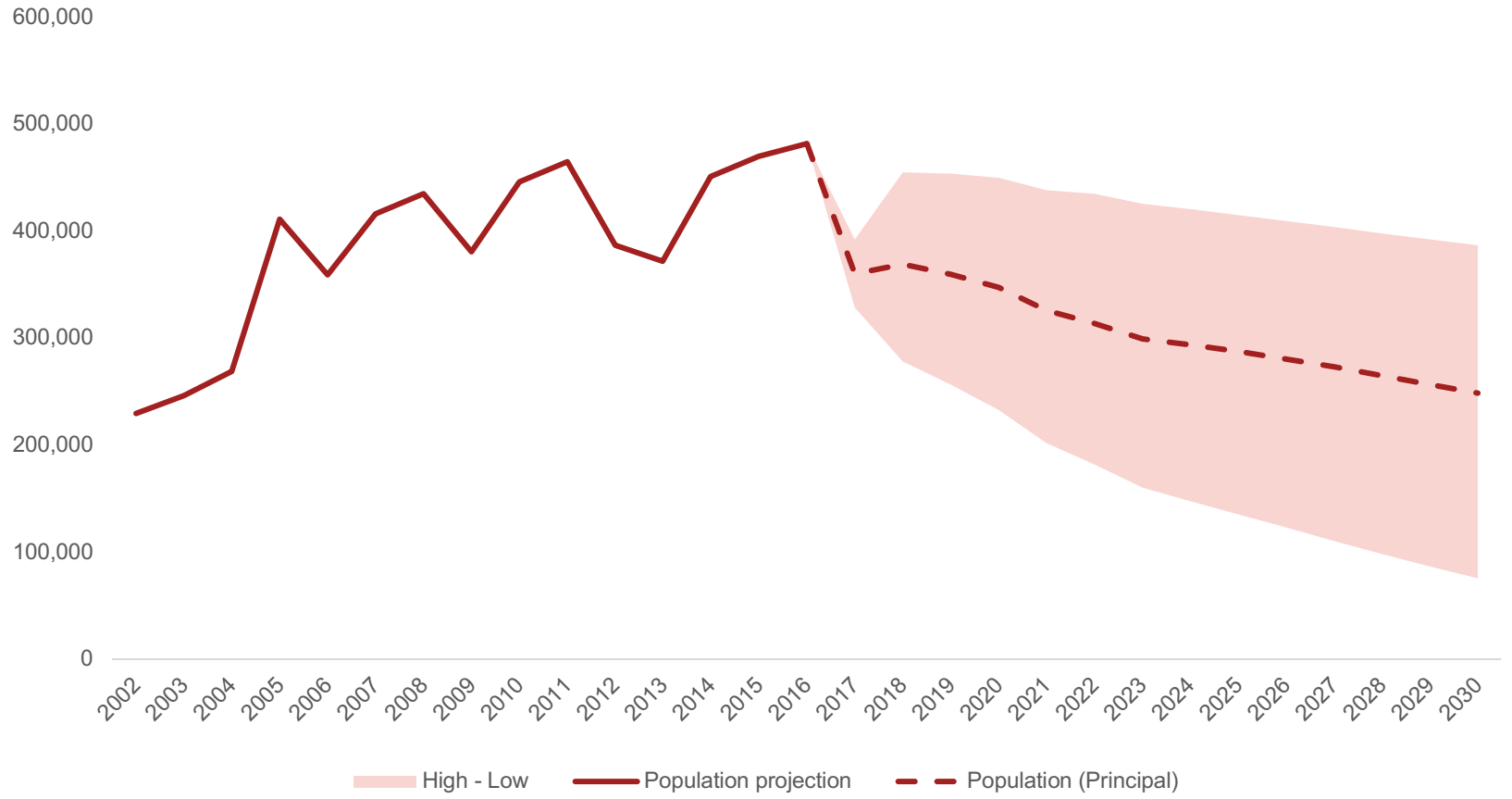
The UK has experienced the slowest growth in the number of houses per household of similar international economies



Source: ONS, PwC analysis

Note: We have assumed a constant household size to derive the number of households, using the latest household size figures from the UN. Over a longer period of time, average household size can change, though generally not by that much for mature advanced economies. ONS data shows, for example, that average household size in the UK has remained at around 2.4 since 1996.

Population growth rates in England are projected to decline, which could reduce pressure on house supply but does not eliminate the need for new homes given past under-supply



Source: ONS, PwC analysis

Summary: UK housing market outlook

1. UK house price growth remained relatively resilient in 2017 despite a weakening economic backdrop, but has shown signs of moderating during the first half of 2018, particularly in London.

2. We project a further softening of house price growth to around 3% in 2018 and we expect this to continue at a similar average rate in the medium term to 2025. This implies that the average UK house price would rise from £221,000 in 2017 to around £285,000 by 2025.

3. We expect that most regions will experience moderate house price growth in 2018 broadly similar to the UK average, except for London, where we project that house prices could drop by nearly 2% compared with 2017.

4. Our local analysis suggests a clear link between lack of new housing supply, relative to population growth, and local house price growth since 2011.

5. The lack of new housing supply relative to population growth has been particularly marked in London. We estimate that around 110,000 additional homes would need to have been built between 2011 and 2016 to keep up with population growth.

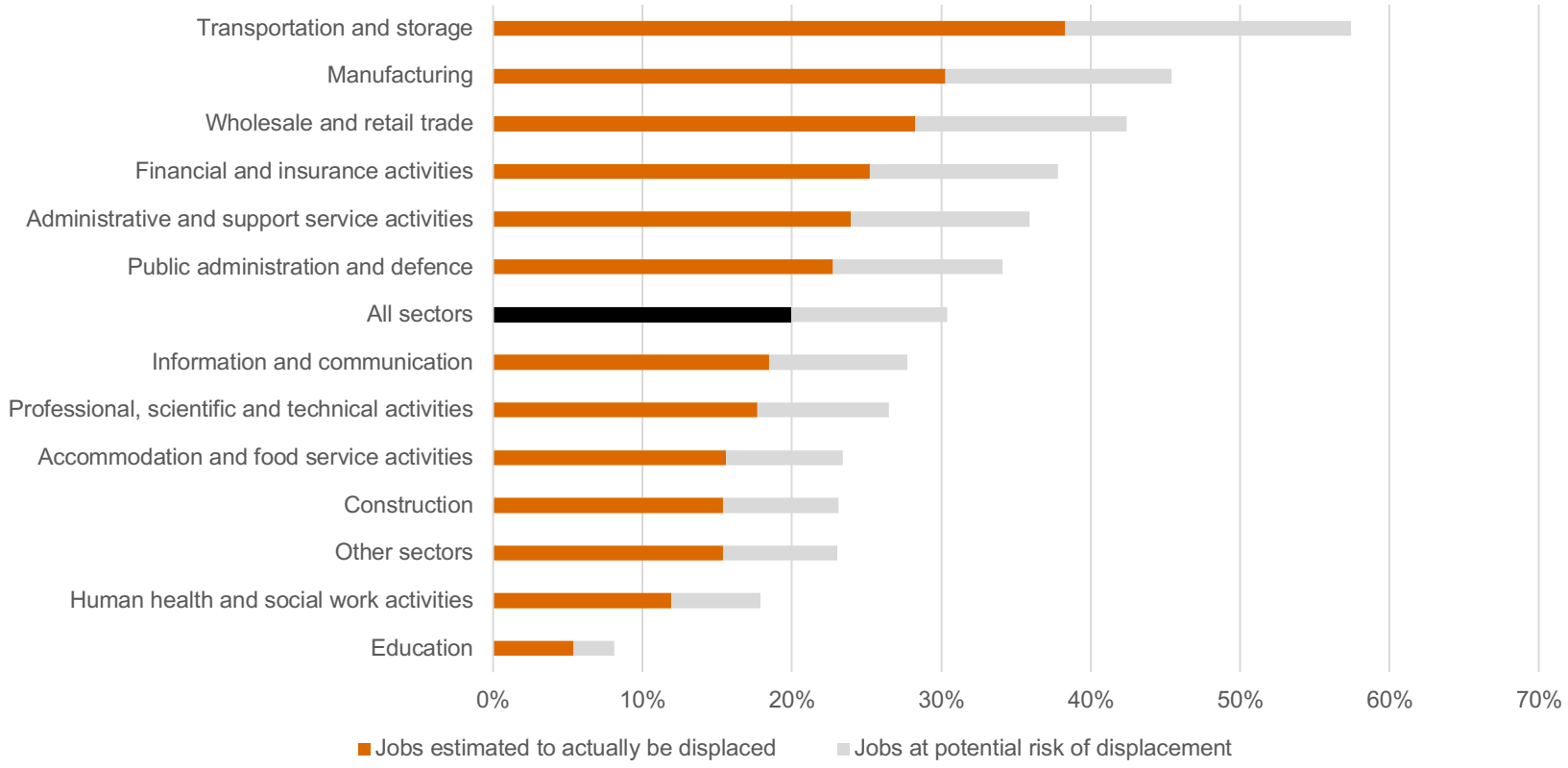
Impact of AI and related technologies on jobs in the UK

We have weighed up the potential for AI to replace jobs (the 'displacement effect') against the ability for AI to create jobs (through the 'income effect')

Source: PwC

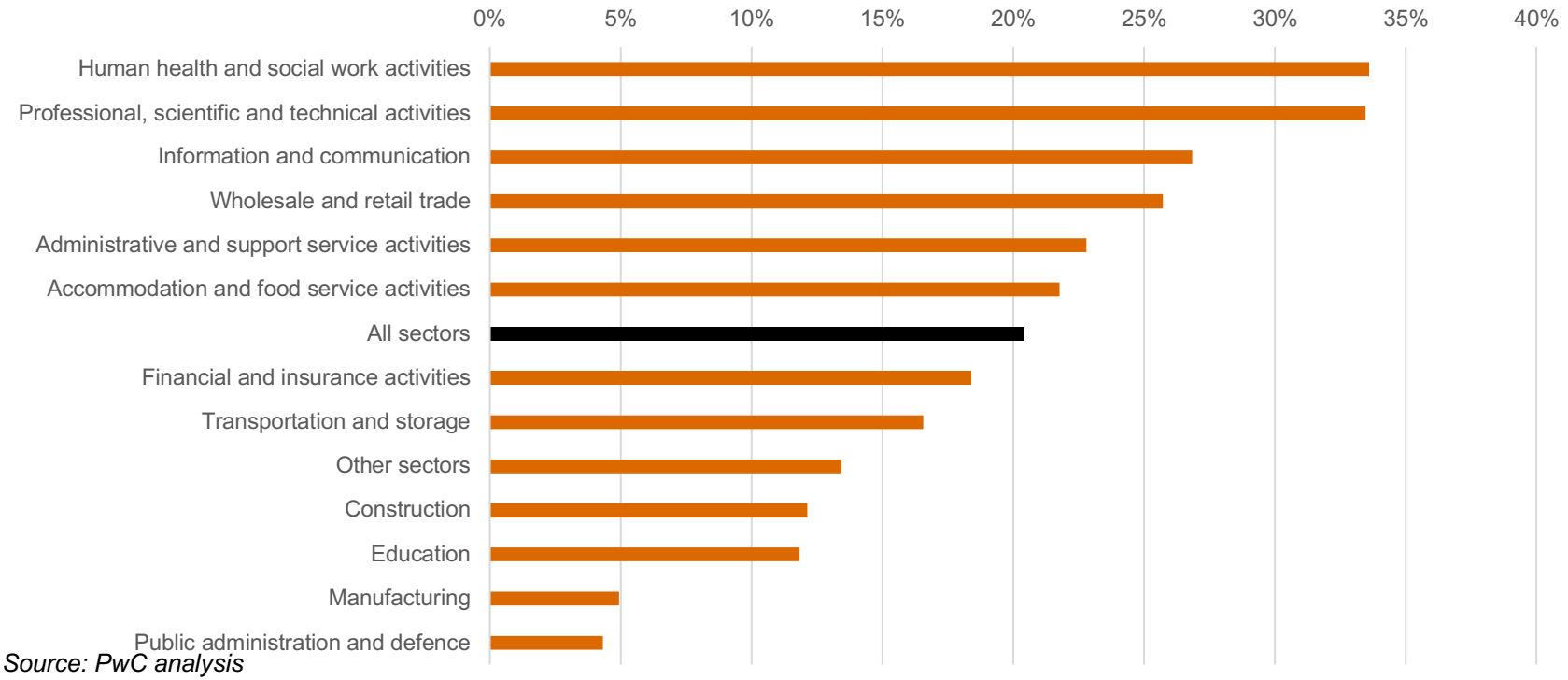
Note: our broad approach here is similar to that adopted for the US in a report by Oxford Economics and Cisco on 'The AI Paradox' (December 2017). But the details are different as our key input assumptions derive from proprietary PwC research and because their analysis assumes the net effect on jobs is zero, whereas we do not impose this constraint. AI is defined broadly here to include related technologies such as robotics, driverless vehicles, drones and other forms of 'smart automation'.

We estimate that around 20% of existing UK jobs could be automated by 2037, but this could vary from around 5% to almost 40% across sectors



Source: PwC analysis using data from the OECD PIAAC survey

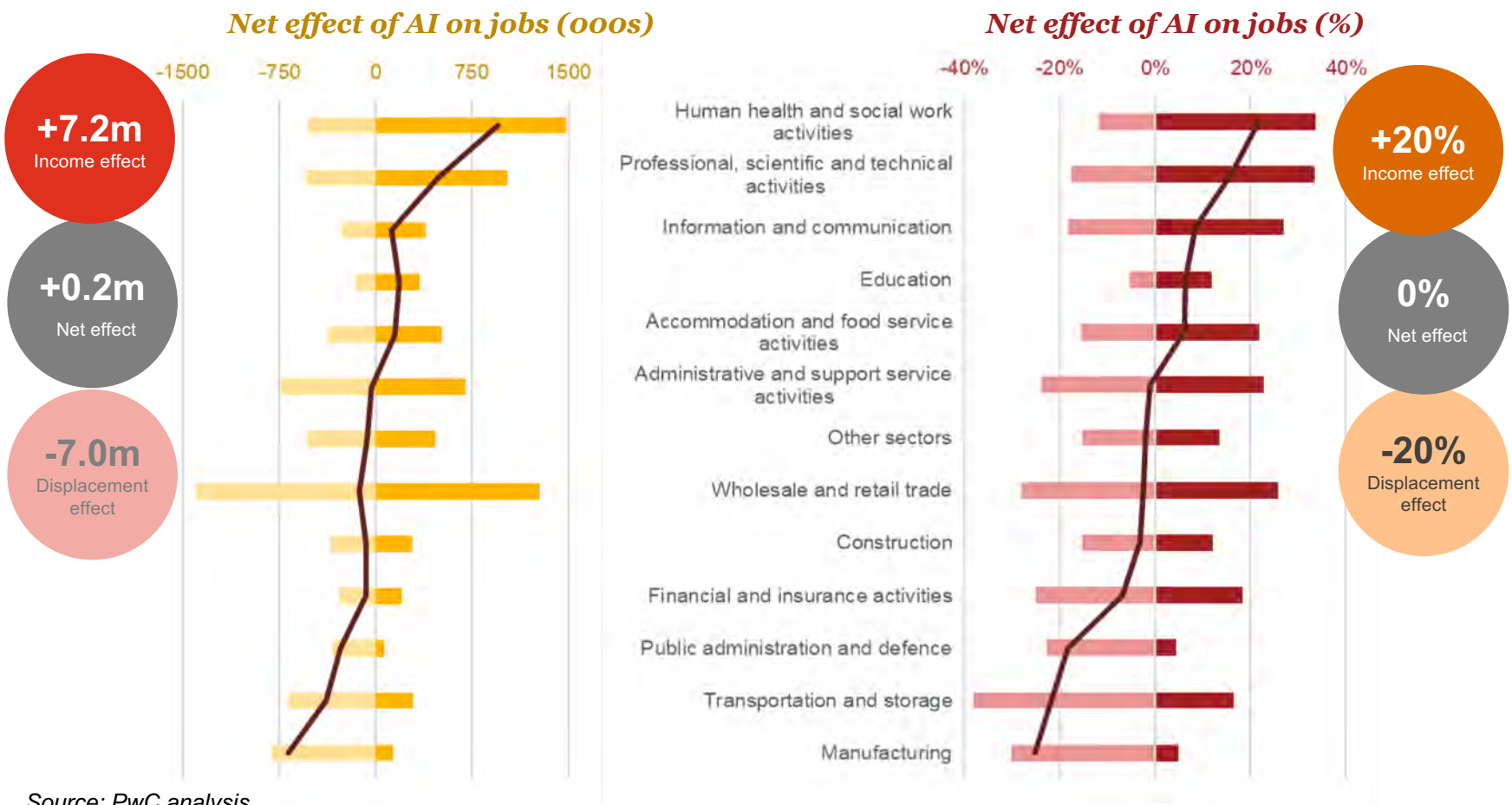
We estimate that AI and related technologies could also create an additional 20% of jobs by 2037, but this could vary across sectors from below 10% to nearly 35%



Source: PwC analysis

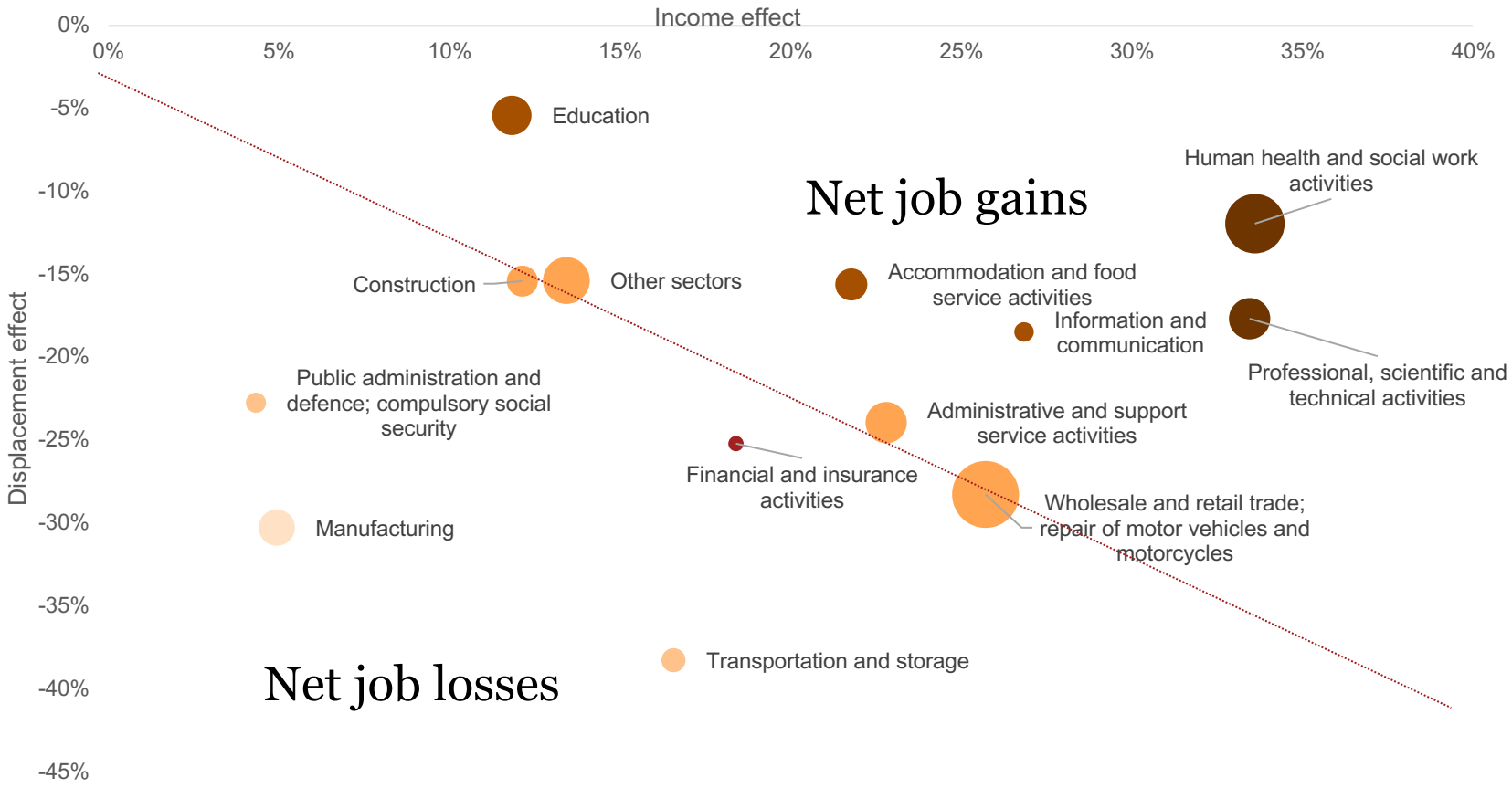
Note: In our 'Sizing the Prize' report we estimated that AI and related technologies could boost UK GDP by around 10% by 2030. For this article we have converted this value into jobs numbers by, first, projecting UK output (GVA) growth by industry sector over the next 20 years, and second, estimating the proportion of GVA growth that is attributable to AI (as implied by estimates in our 'Sizing the Prize' report). We assume here that the projected increase in jobs due to the income effect will be the same as the projected increase in GVA since productivity effects are captured through the displacement effect.

The net effect of AI on jobs by 2037 is estimated to be broadly neutral: c.20% displacement vs c.20% creation



Source: PwC analysis

The healthcare sector is estimated to see significant net job gains from AI, while other sectors such as transport and manufacturing could see net job losses



Source: PwC analysis

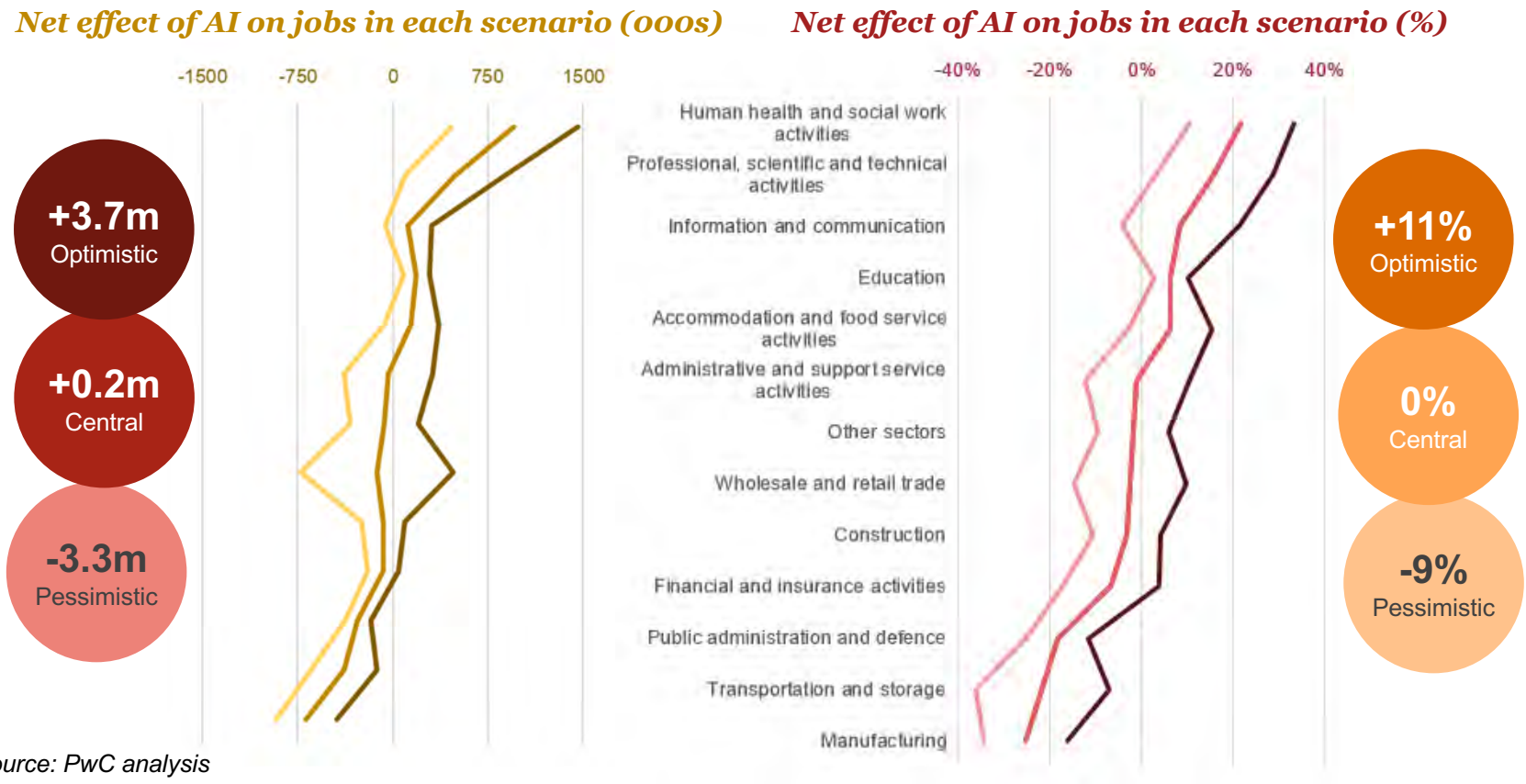
The estimated net effect of AI on jobs by industry sector implies a small positive impact in London (c.2%) and marginally negative impacts in the North and Midlands based on differences in their industry structures

	Income effect		Displacement effect		Net effect	
	%	jobs	%	jobs	%	jobs
London	22.0%	1297	-19.7%	-1159	2.3%	138
South East	20.6%	1019	-19.7%	-978	0.8%	41
Wales	19.7%	302	-18.9%	-291	0.7%	11
Scotland	20.2%	559	-19.6%	-544	0.5%	15
South West	19.9%	582	-19.5%	-571	0.4%	11
North East	20.0%	239	-19.8%	-237	0.2%	2
East of England	20.4%	648	-20.3%	-646	0.1%	2
North West	20.4%	748	-20.4%	-749	0.0%	-1
West Midlands	20.1%	599	-20.4%	-607	-0.3%	-8
Northern Ireland	19.4%	172	-19.8%	-176	-0.4%	-4
Yorkshire and The Humber	20.0%	532	-20.4%	-544	-0.4%	-12
East Midlands	19.5%	478	-20.7%	-505	-1.1%	-27

Source: PwC analysis

Note: The relatively small regional differences are what we would expect given that we are only looking at the effect of variations in industry structure across regions. In practice, there will also be variations due to other task characteristics of jobs within a particular sector that vary by region

Although our central estimate is that the net jobs impact of AI will be broadly neutral, our two alternative scenarios illustrate the uncertainties around any such estimates



Source: PwC analysis

Government has an important role in steering the economy towards a more optimistic scenario in relation to AI

Mitigating job displacement

- Government should invest more in developing STEAM* skills that will be most useful to people in this increasingly automated world
- Government should continue to work with business, unions and educational providers to establish a national retraining programme for workers displaced by new technologies
- Government should strengthen the safety net for those who find it hard to adjust to technological changes

Maximising job creation

- Place-based industrial strategy should target job creation
- Government should implement its AI strategy in full
- Government should promote effective competition to ensure that productivity gains from AI are passed through to consumers

*STEAM = science, technology, engineering, arts & design, and maths

Summary: Net impact of AI and related technologies on jobs in the UK

1. AI and related technologies such as robotics, drones and driverless vehicles could displace many jobs formerly done by humans, but they will also create many additional jobs as productivity and real incomes rise and new and better products are developed.

2. We estimate that these countervailing displacement and income effects are likely to broadly balance each other out over the next 20 years in the UK, with the share of existing jobs displaced by AI (c.20%) likely to be approximately equal to the additional jobs that are created (c.20%).

3. The sectors that we estimate will see the largest net increase in jobs in the long run due to AI include health (+22%), professional, scientific and technical services (+16%) and education (+6%). The sectors estimated to see the largest net decrease in jobs due to AI include manufacturing (-25%), transport (-22%) and public administration (-18%).

4. Based on differences in industry structure alone, our projections do not imply large variations by region, with just a small net job gain in London offset by small net losses in the North and Midlands. But other factors could lead to larger regional variations than captured by our analysis.

5. Our central estimate is that the net effect of AI on jobs will be broadly neutral, but there are many uncertain factors that could tip the balance towards more optimistic or pessimistic scenarios. We identify some policy areas where action could help to maximise the benefits and/or mitigate the costs in terms of impacts from AI on jobs.

Contacts for more information about this report

John Hawksworth (Chief Economist) – john.c.hawksworth@pwc.com

Richard Snook (Senior Economist, Housing) – richard.snook@pwc.com

Jamie Durham (Economist, Housing) – jamie.durham@pwc.com

Yuval Fertig (Economist, Impact of AI on jobs) – yuval.fertig@pwc.com

For more information on our Economics services, or to access the full report, please see our website at:

http://www.pwc.co.uk/economics

http://www.pwc.co.uk/ukeo