

# *UK Economic Outlook*

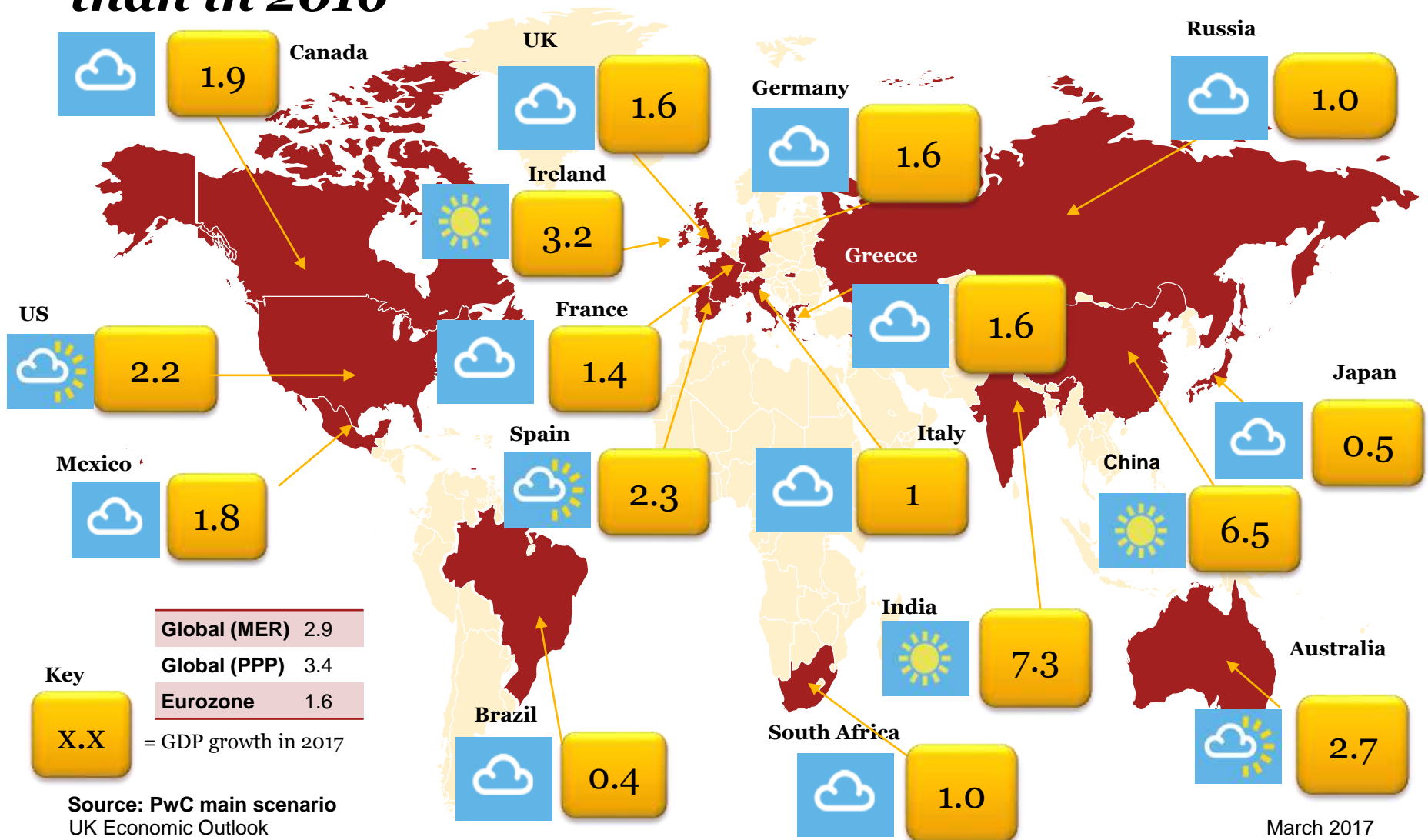
## March 2017

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# Global growth in 2017 should be slightly stronger than in 2016



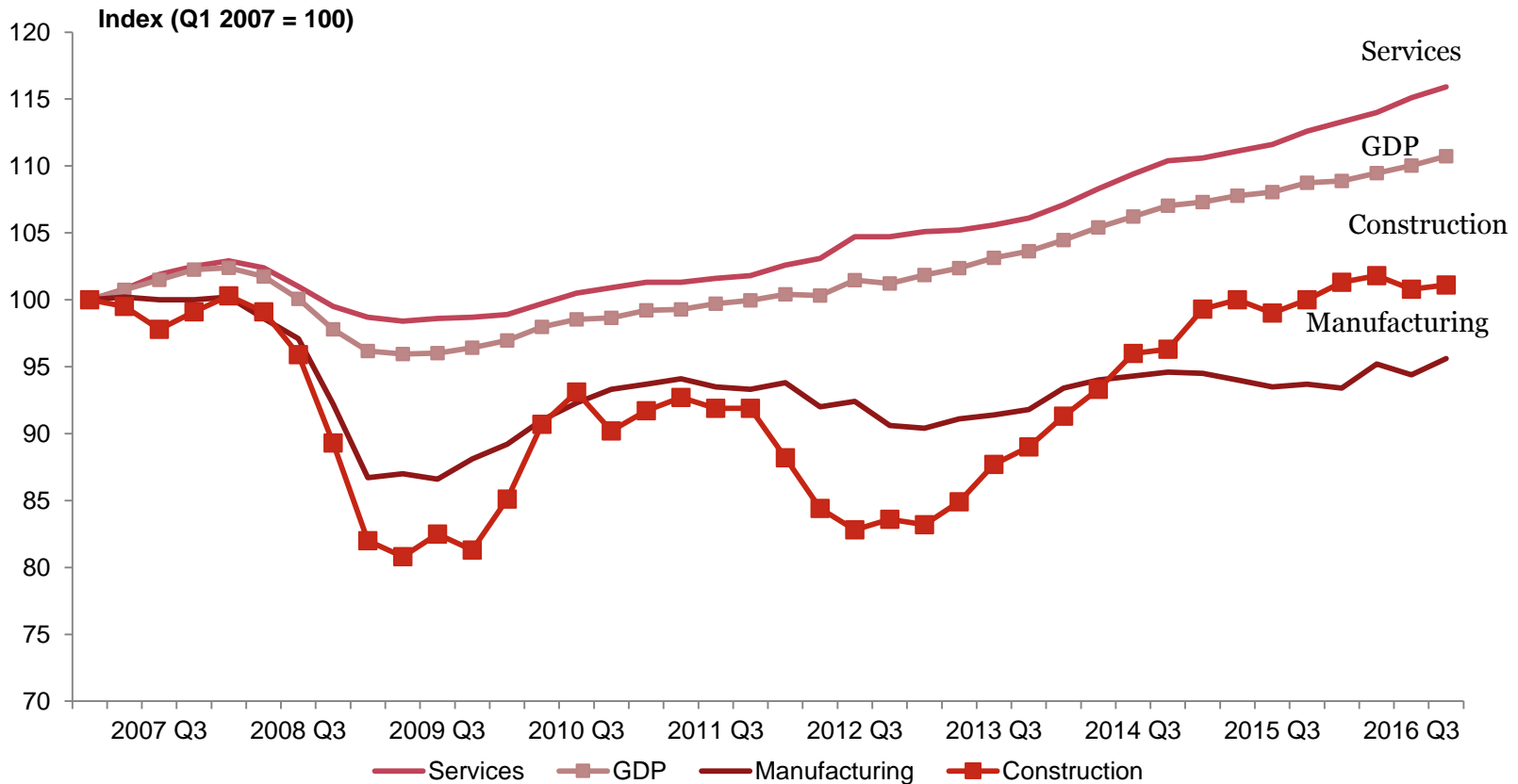
Source: PwC main scenario  
 UK Economic Outlook  
 PwC

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# *UK economic trends and prospects*

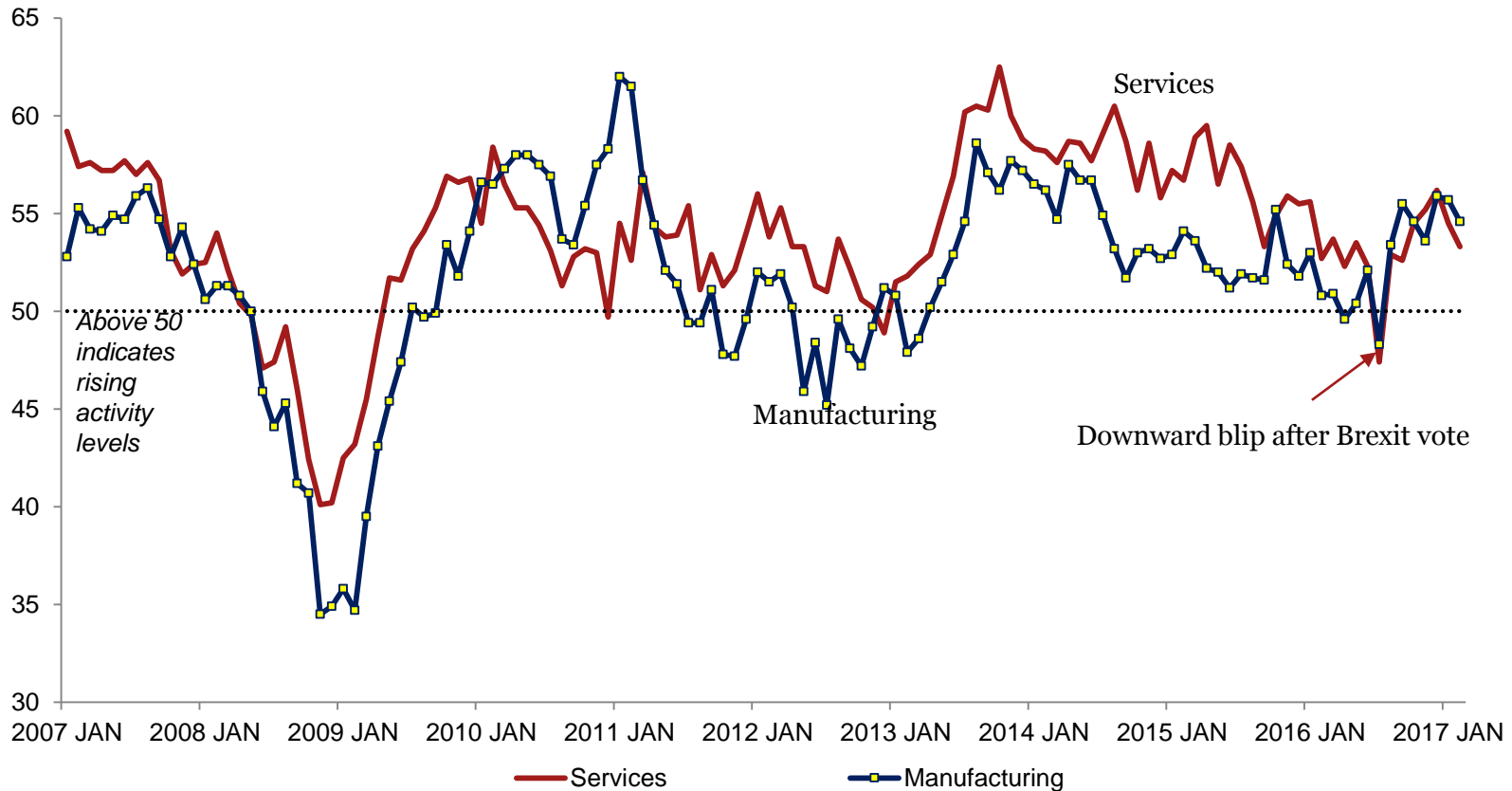
# *Growth in UK services remains relatively strong, but manufacturing has slowed and construction remains volatile*

## Sectoral output and GDP trends

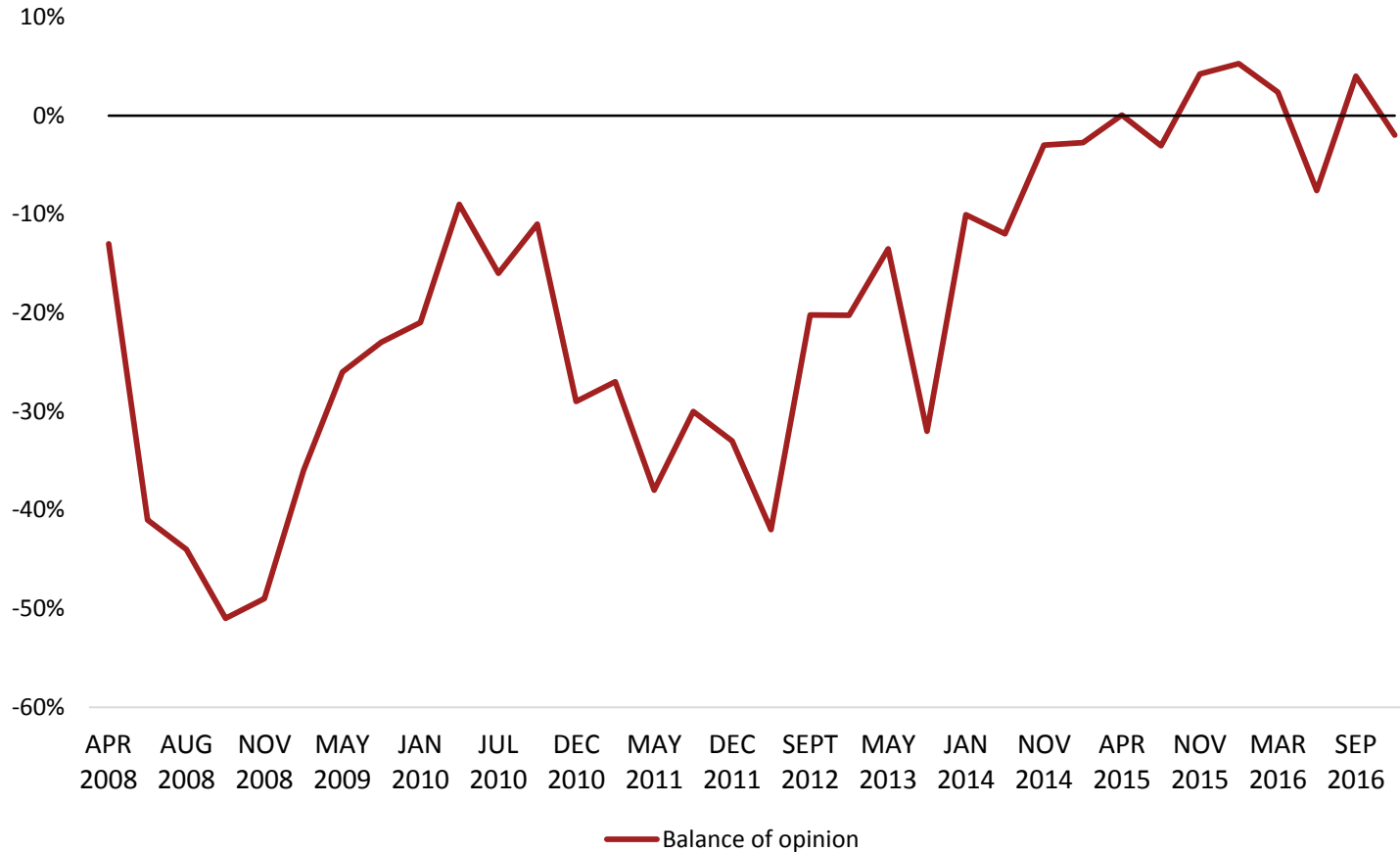


# ***Strong post Brexit recoveries in the services and manufacturing sectors have tailored off in early 2017***

## **Purchasing Managers' Indices of business activity**

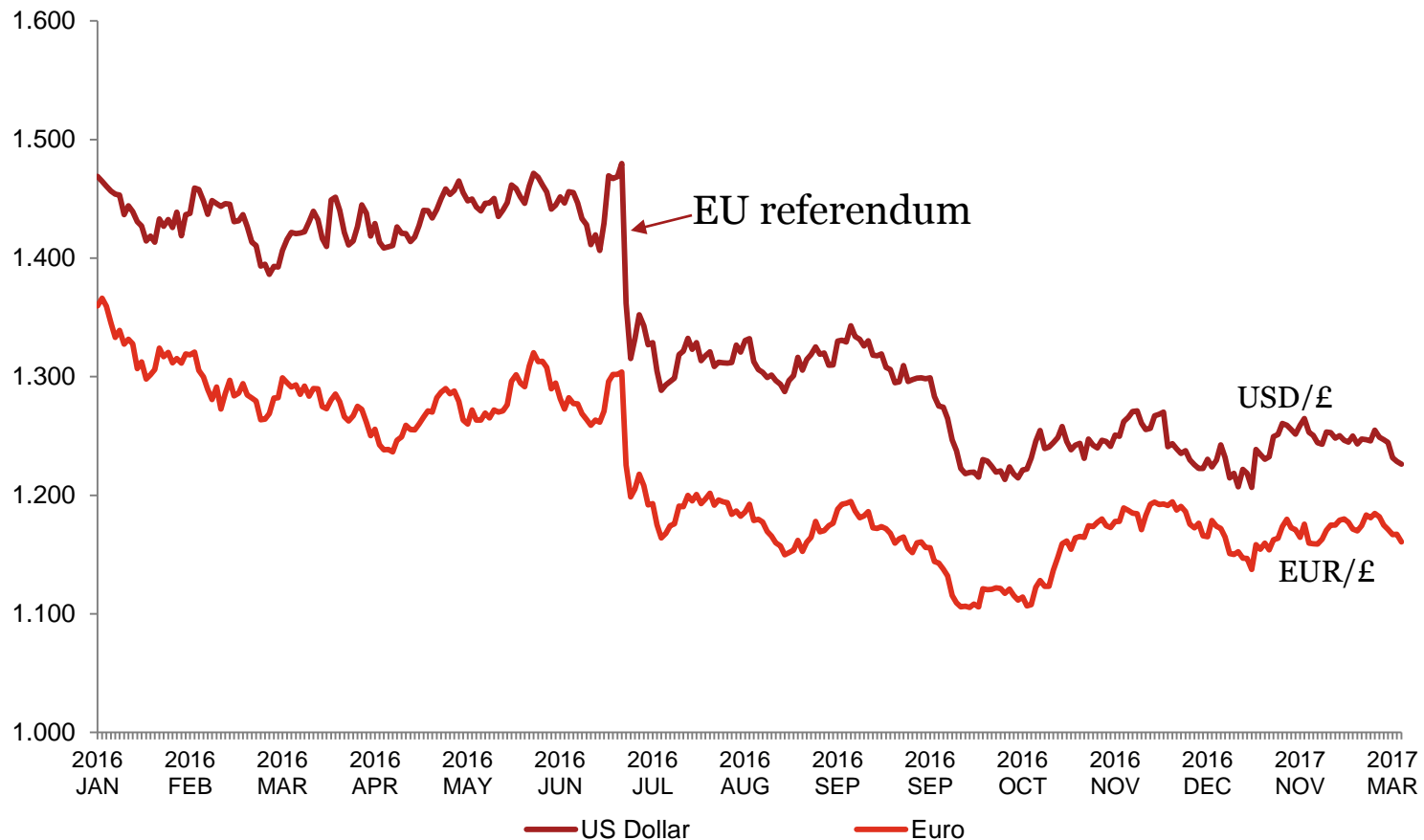


## *PwC's regular survey shows the rise in consumer confidence stalling following its post Brexit recovery*



# Concerns about Brexit have left sterling weak against the dollar and euro, pushing up UK import prices

US dollar and euro exchange rates against the pound

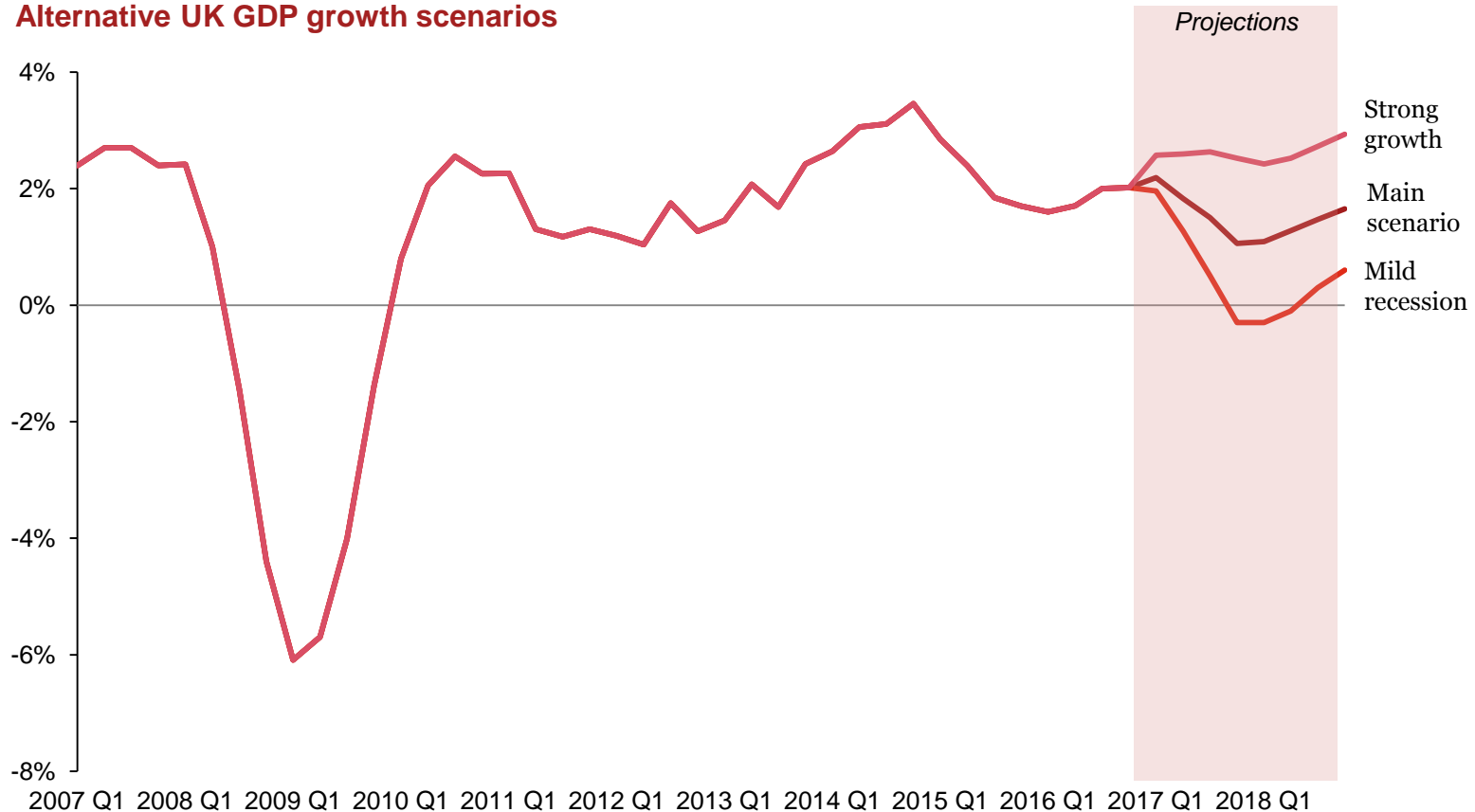


Source: Bank of England  
UK Economic Outlook  
PwC



# ***UK growth is likely to ease in 2017-18 due to business uncertainty and slowing consumer spending growth***

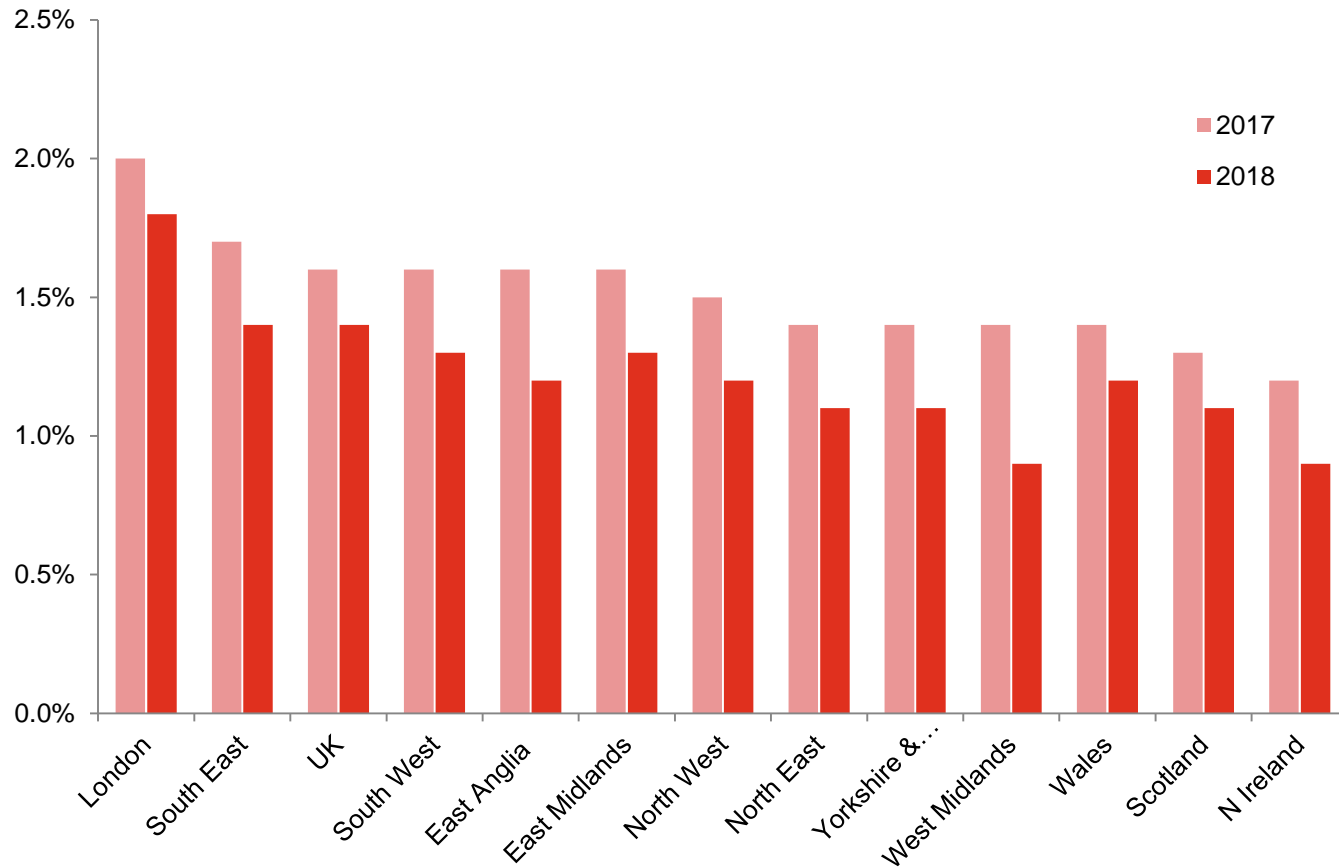
**Alternative UK GDP growth scenarios**



Source: ONS, PwC scenarios

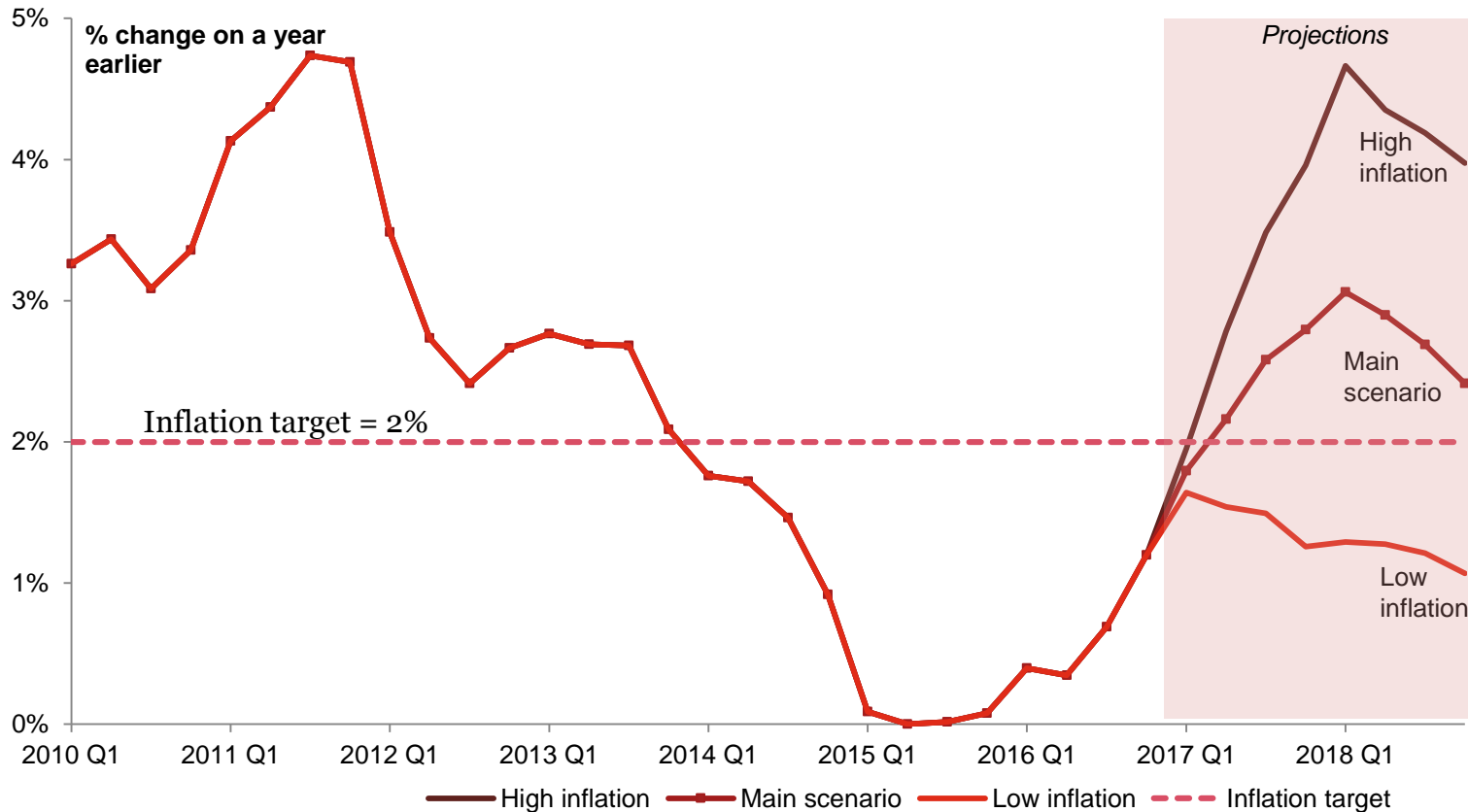
# *London is expected to remain the fastest growing region, though all regions are projected to have positive growth*

PwC main scenario for output growth by region in 2017 and 2018



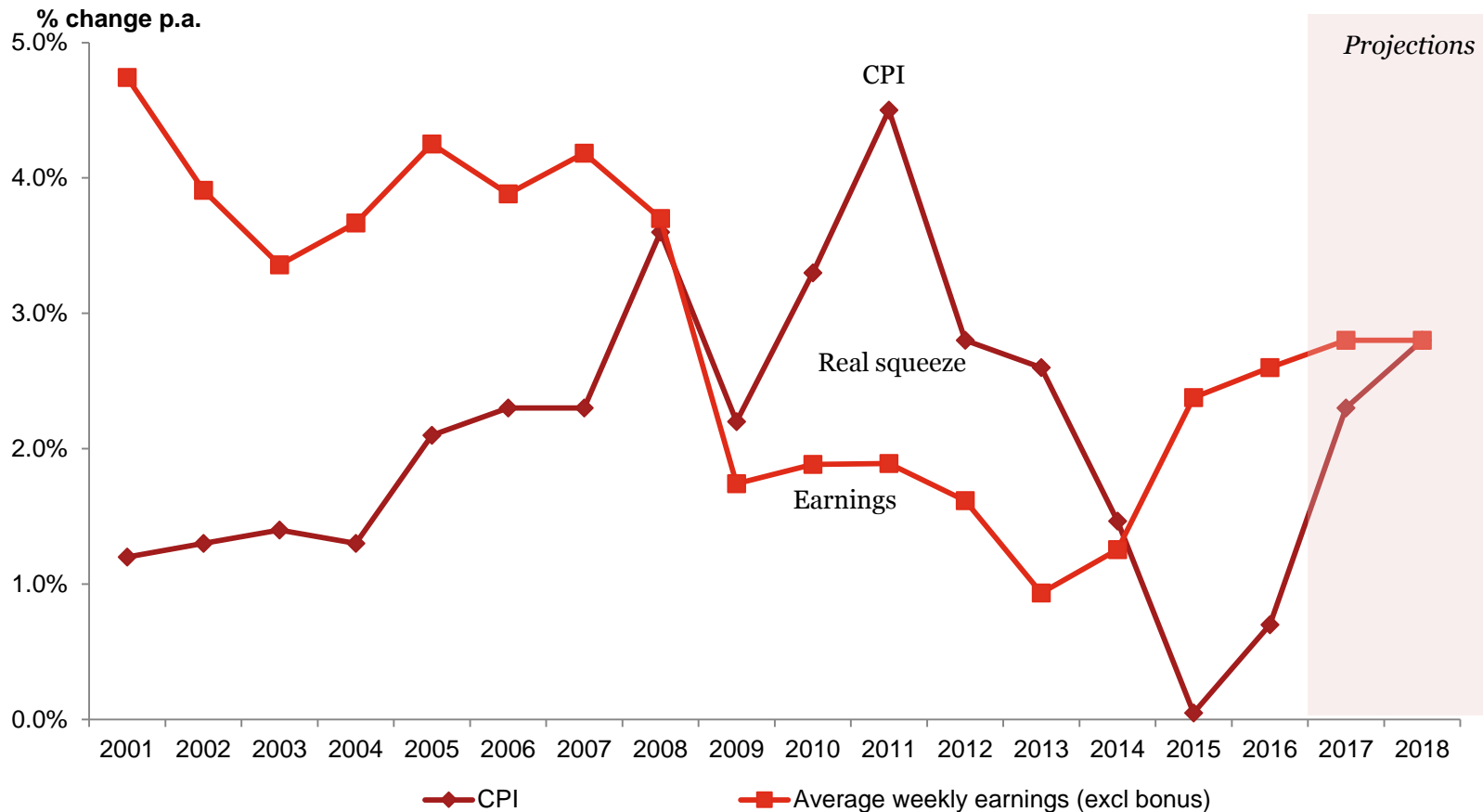
# The persistent weakness of the pound is expected to push UK inflation above target later this year

## Alternative UK inflation (CPI) scenarios



# Real earnings growth is projected to be around zero in 2018 as inflation picks up and nominal earnings growth slows

## CPI inflation vs average earnings growth



## ***Summary: UK economic trends and prospects***

**1**

UK economic growth has held steady at around 2% in the year to Q4 2016 with no immediate deceleration after the “Brexit” vote.

**2**

In our main scenario, we project UK growth to decelerate from 1.8% in 2016 to around 1.6% in 2017 and 1.4% in 2018, driven primarily by subdued business investment and moderating consumer spending. But a recession is unlikely in 2017-18 unless there are wider global economic shocks beyond Brexit.

**3**

The pound has fallen significantly since the Brexit vote, which will push up import prices and squeeze real household spending power in 2017-18 as inflation rises above its 2% target.

**4**

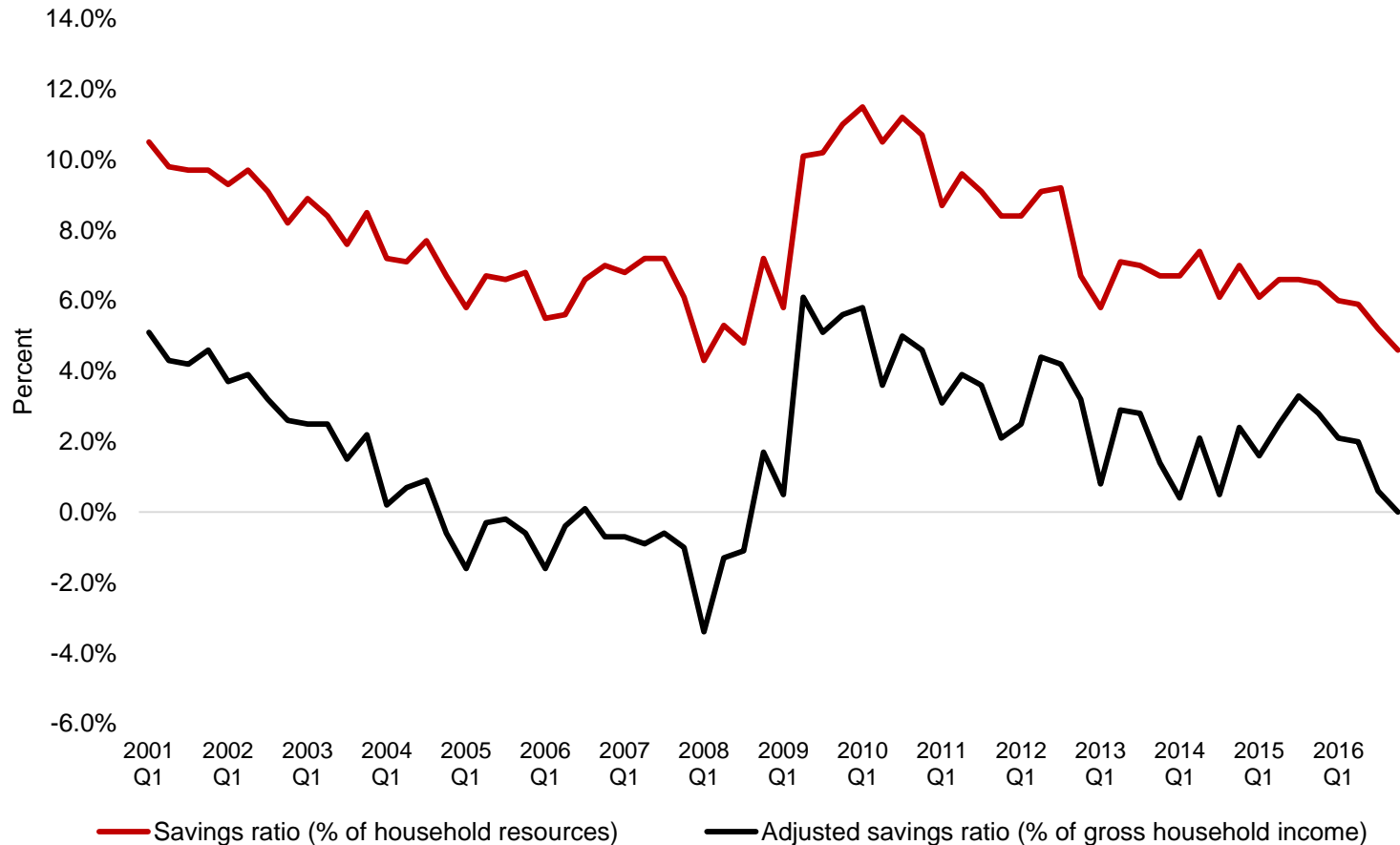
We project that London will remain the fastest growing region in 2017-18, despite its pace of growth falling significantly since 2015. Other regions will also see more modest growth in 2017 and 2018, but none should fall into recession.

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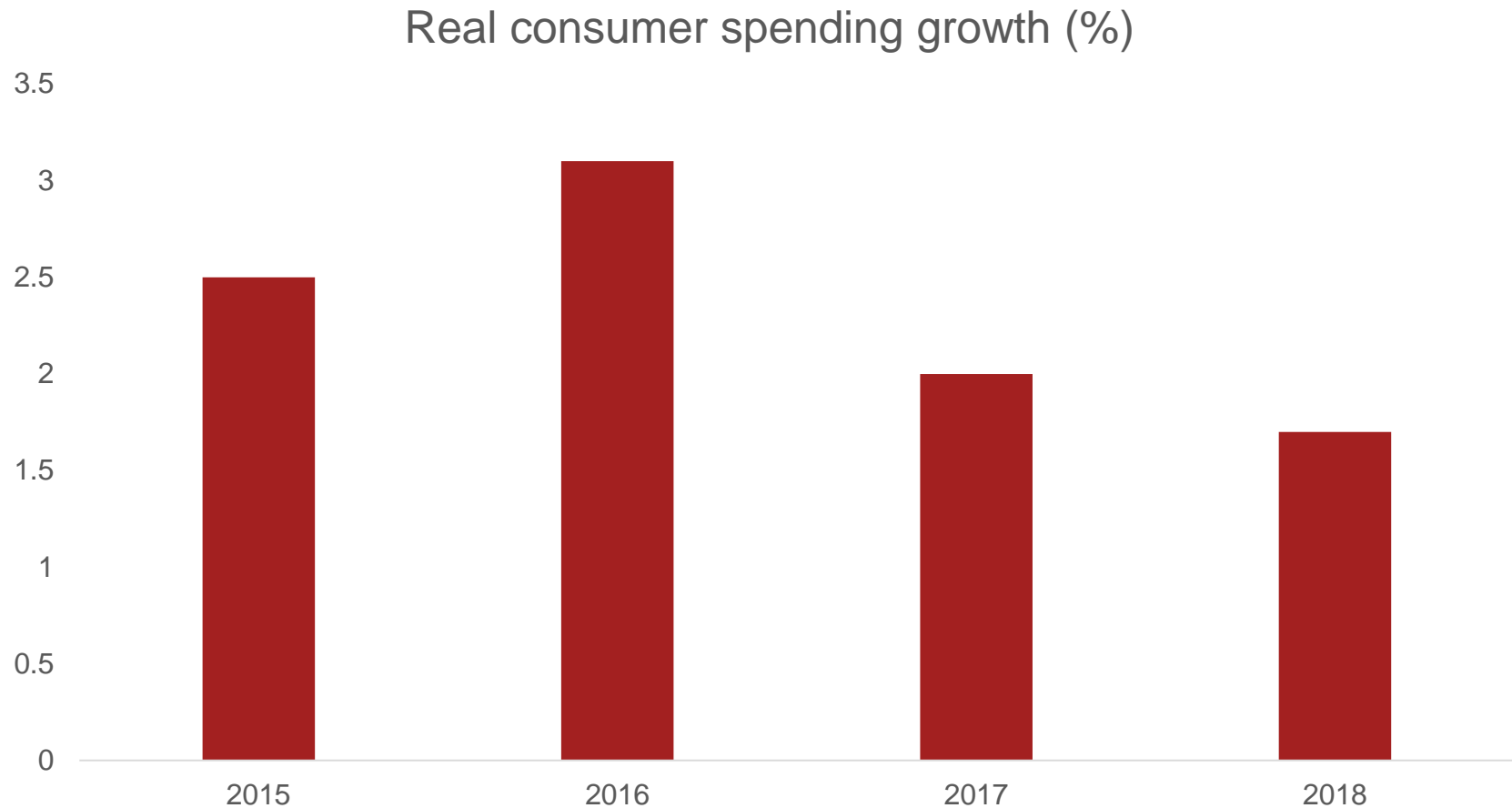
# *Consumer spending prospects after Brexit*

# *UK household savings ratio in steady decline since 2010, boosting consumer spending, but this can't continue forever*

## Historical trends in official and adjusted UK household saving ratios



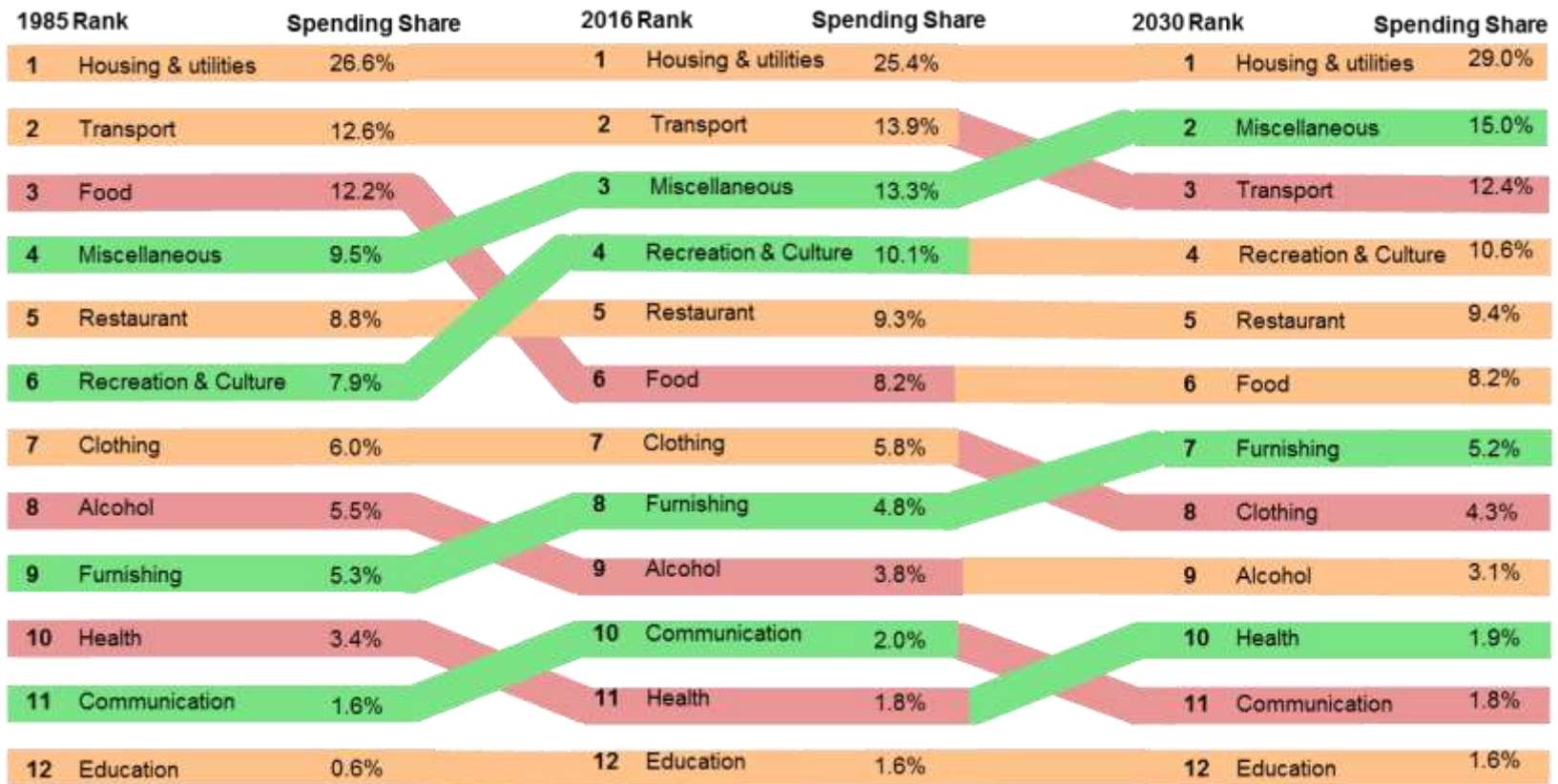
***We expect consumer spending growth to moderate in 2017 and 2018 as higher inflation squeezes real spending power***



Source: ONS, PwC main scenario for 2017-18

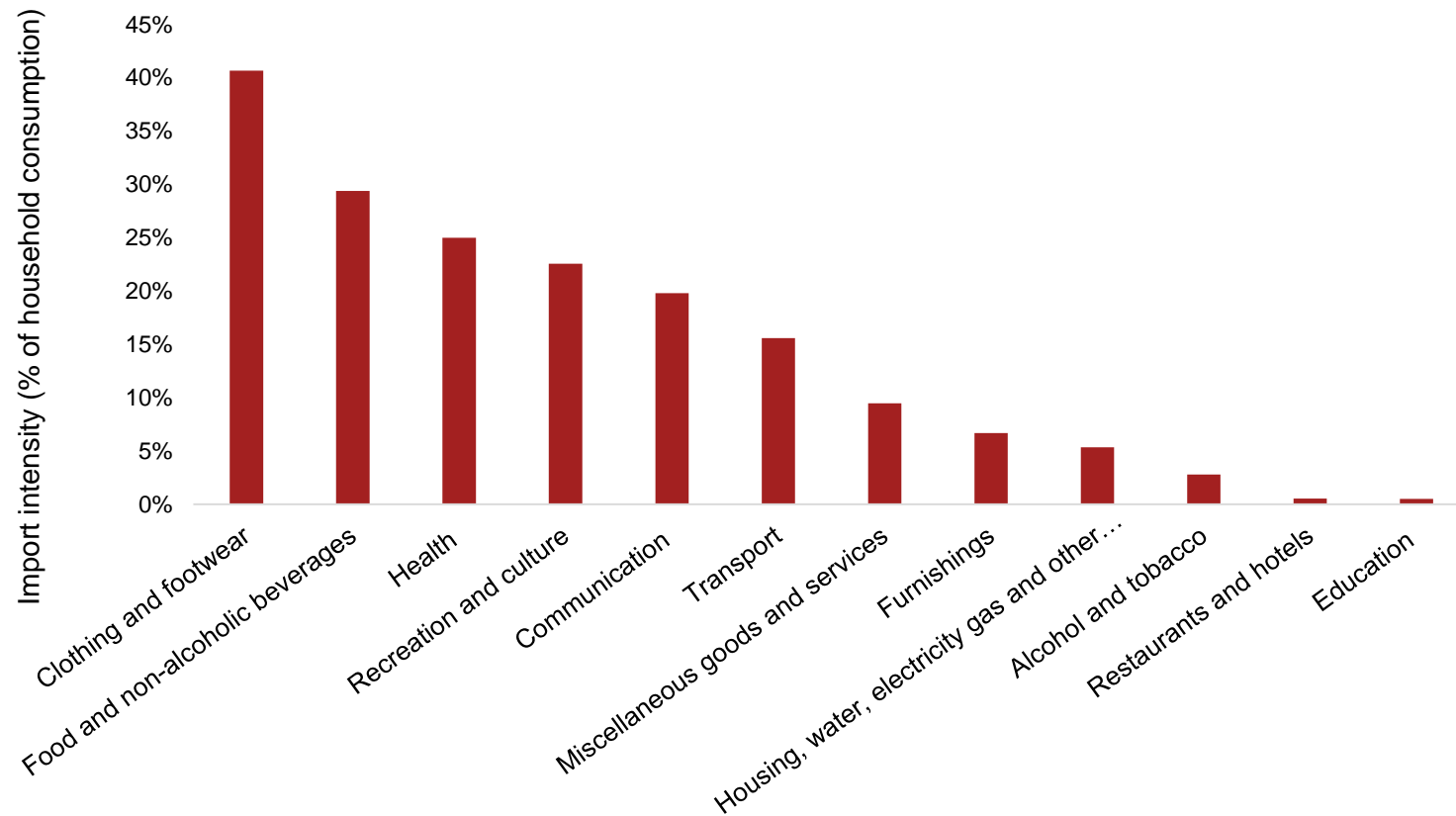


***Looking further ahead, we project spending on housing and utilities to rise to almost 30% of total spending by 2030 as housing shortages continue***



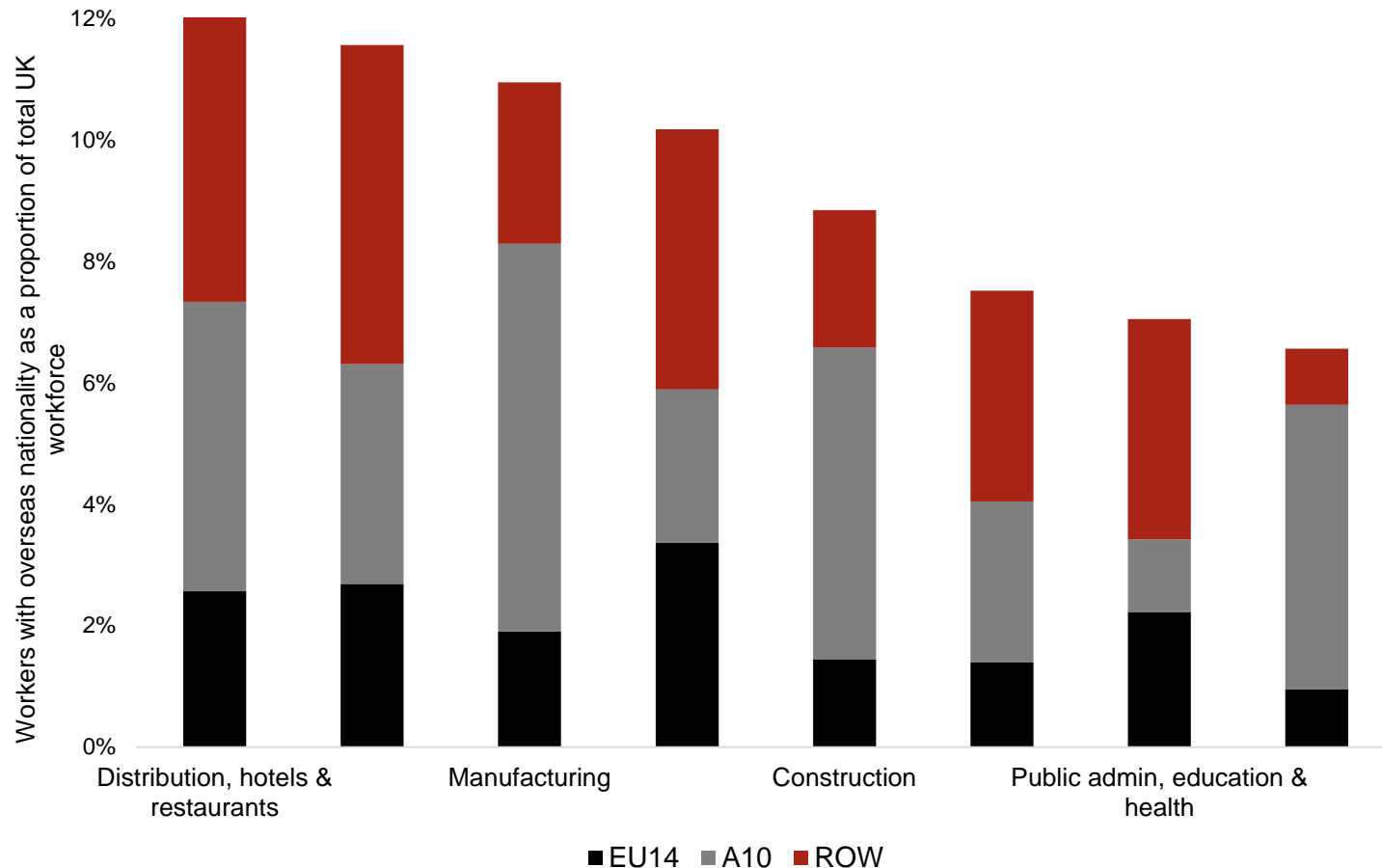
# *Import-intensive clothing and food industries likely to be significant losers from Brexit-related weakness of pound*

## Household consumption import intensities



# *Retail, hotel and restaurant sectors could be particularly vulnerable to any significant reductions in EU migration*

## Foreign nationals as a proportion of the UK workforce



Source: ONS, PwC analysis  
UK Economic Outlook  
PwC

## ***Summary: Consumer spending trends after Brexit***

**1**

Adjusted saving ratio has declined steadily since 2010, which has helped support a strong recovery in consumer spending since 2012 that has continued since the Brexit vote. But we expect spending growth to slow from around 3% in 2016 to around 2% in 2017 and around 1.7% in 2018 as higher inflation squeezes real household spending power.

**2**

We project the spending share of housing and utilities to rise to 29% by 2030 as housing supply continues to be restricted relative to demand. Spending shares of essentials such as food and clothing are expected to decline as incomes rise, whilst the spending shares of luxury items such as restaurants increases in the long term.

**3**

The food and clothing industries are most vulnerable to the short term impact of Brexit as the weaker exchange rate increases costs in these import intensive industries. But UK inbound tourism has already gained from a weaker pound.

**4**

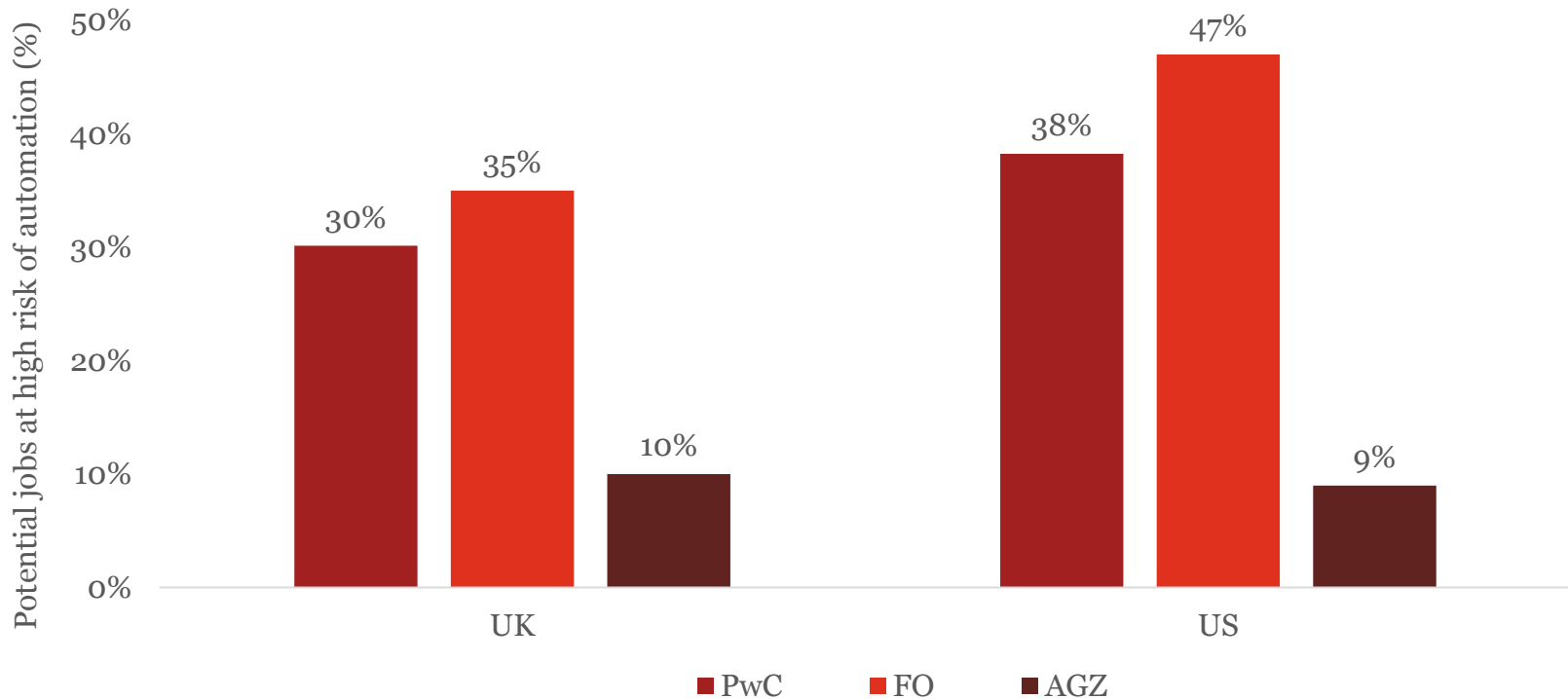
The retail, hotel and restaurant sectors are most sensitive to changes in the number of EU nationals permitted to work in the UK, although these impacts could be offset in part if there was any relaxation in limits on non-EU migration (but not current government policy).

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# *Will robots steal our jobs?*

***We found that around 30% of jobs in the UK are at potential high risk of automation and around 38% in the US – lower than Frey and Osborne, but higher than 2016 OECD study***

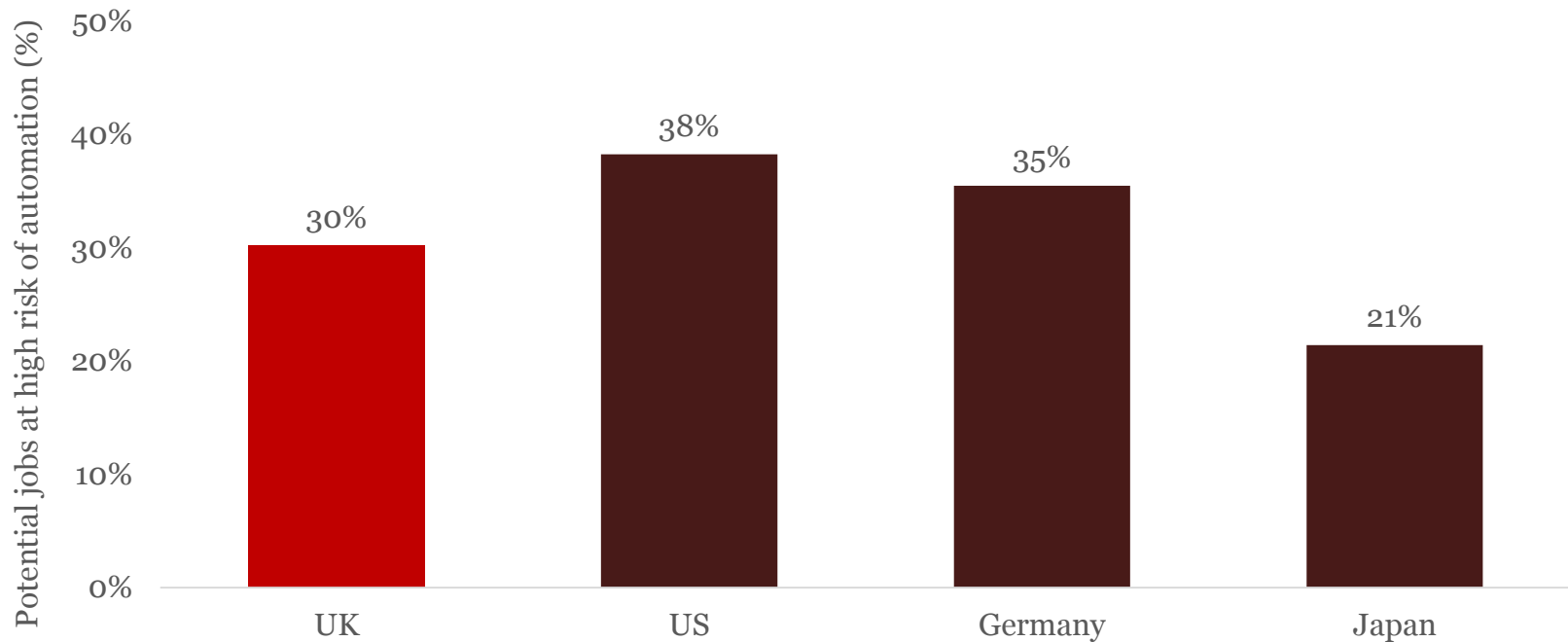
**What proportion of jobs are potentially at high risk of automation by early 2030s?**



Sources: PwC analysis; Frey and Osborne ('FO', 2013), Arntz, Gregory and Zierahn ('AGZ', OECD, 2016)

***Compared to the UK, the US and Germany have an increased potential risk of job automation, Japan has a lower risk***

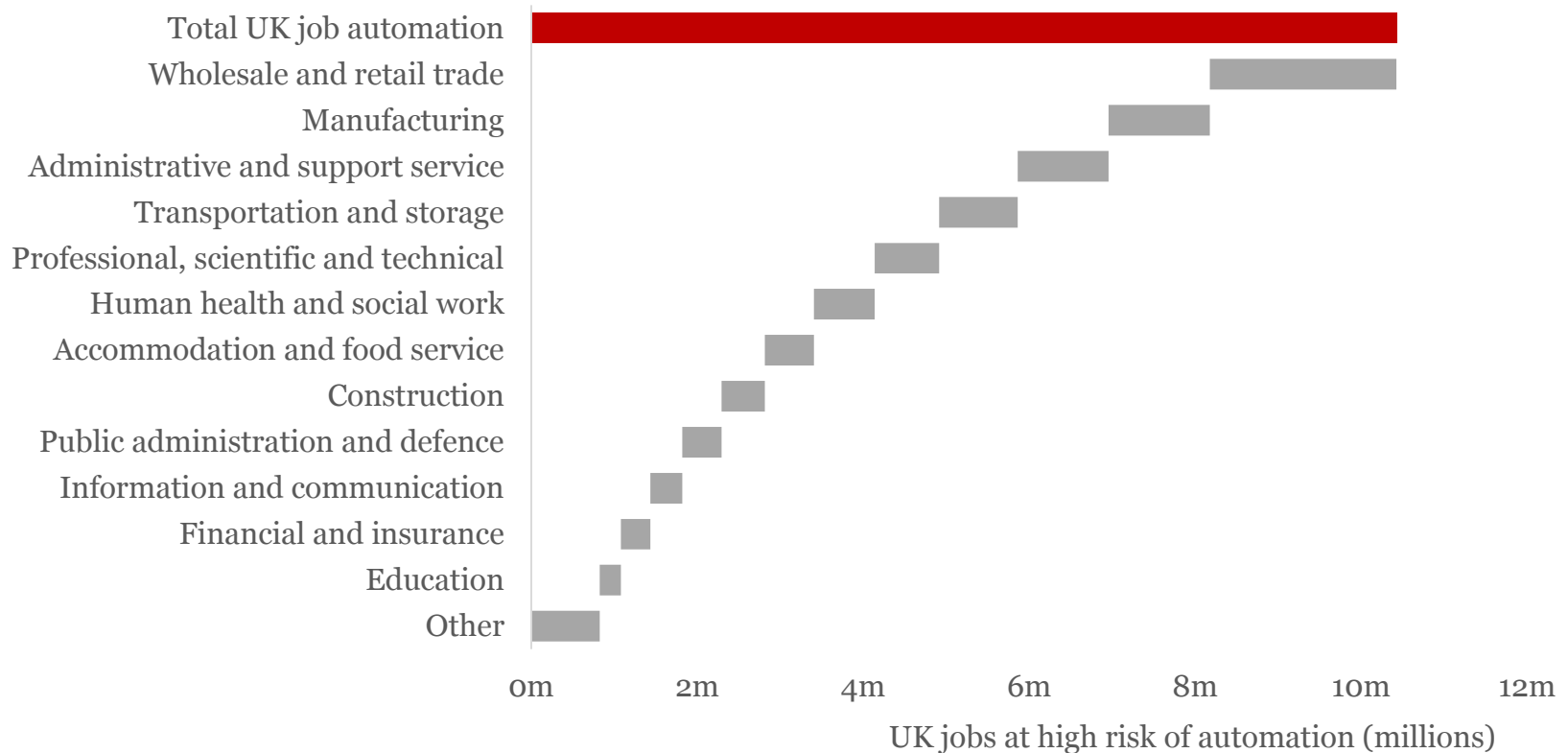
**Proportion of jobs at potential high risk of automation by country by early 2030s**



Sources: ONS; PIAAC data; PwC analysis (based on estimated technical feasibility)

# ***Several million jobs could potentially be at risk of automation in the UK by early 2030s, but this will be a gradual process with offsetting job gains elsewhere***

## **Potential jobs at high risk of automation by UK industry sector**

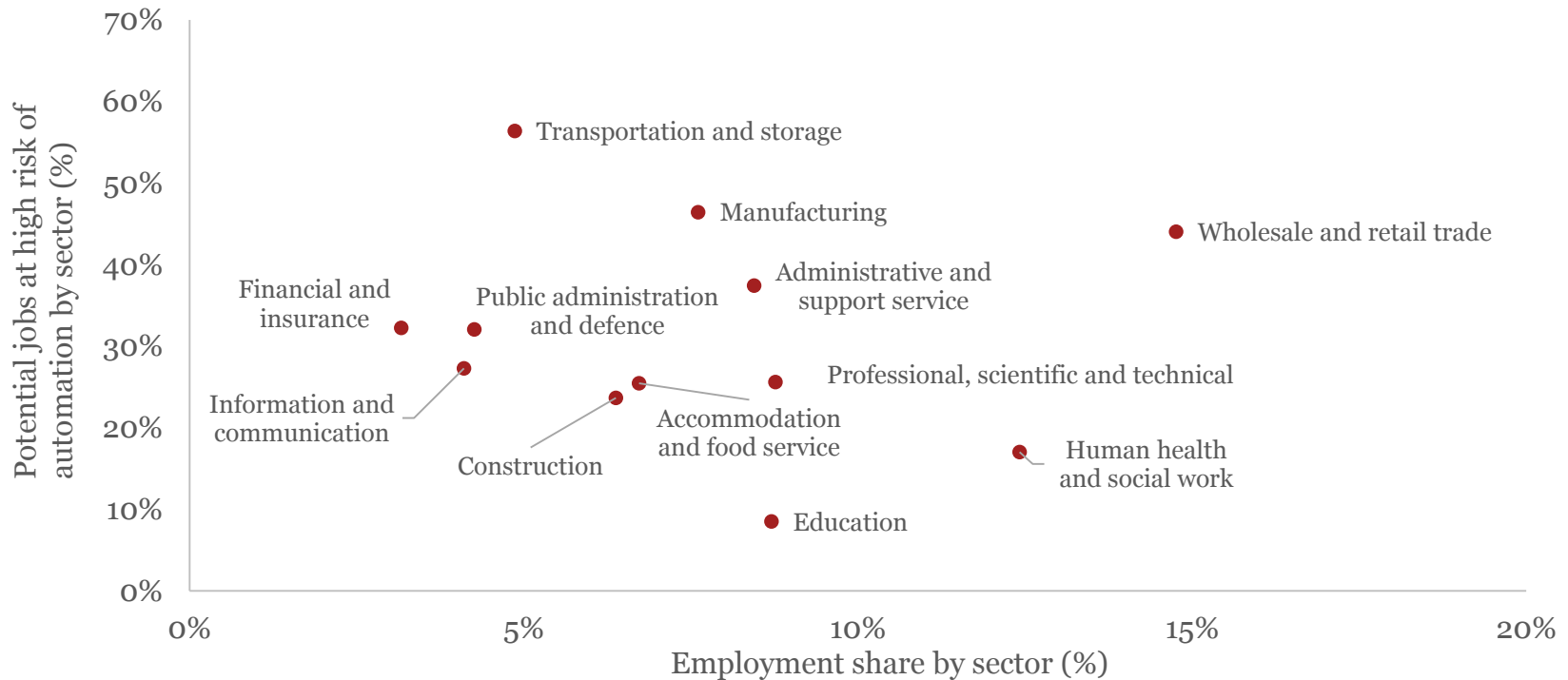


Sources: ONS; PIAAC data; PwC analysis



# ***The sector with the highest proportion of jobs at potential risk of automation by early 2030s is transport and storage, while health and education are relatively lower risk***

## **Potential impact of job automation by UK industry sector by early 2030s**

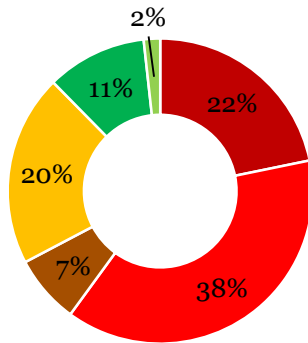


Sources: ONS; PIAAC data; PwC analysis

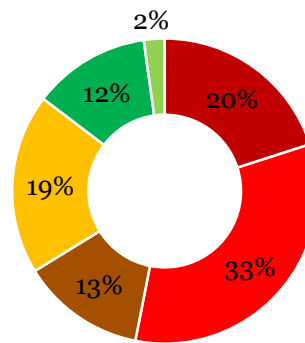
# *One of the main drivers of a job being at potential higher risk of automation is the composition of tasks conducted, although required education levels are also important*

## **Task composition for UK employees for example industry sectors**

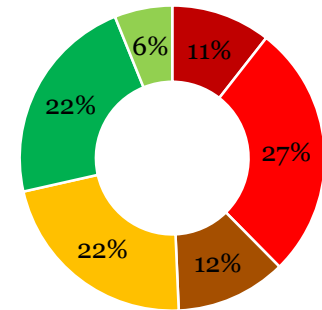
Transportation and storage



Manufacturing

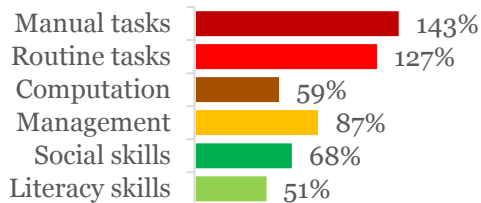


Education



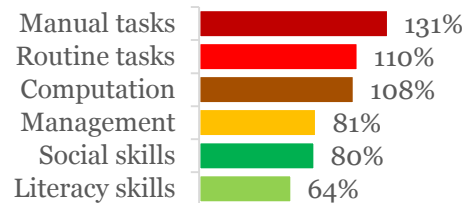
Compared to UK average (%)

0% 100% 200%



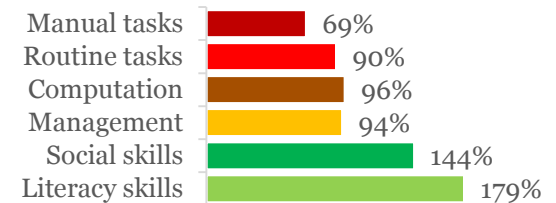
Compared to UK average (%)

0% 100% 200%



Compared to UK average (%)

0% 100% 200%



Sources: PIAAC data; PwC analysis

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## *Some important caveats*

- Estimates based on technical feasibility, ignoring economic, legal and regulatory constraints
- Little sign yet of jobs impact from automation in UK – employment rate at record high and no significant change expected in short term
- Might change if robots/AI get much cheaper and labour costs rise
- But could take many decades for robotics/AI to reach full potential:
  - organisational inertia/legacy systems
  - economic, political, legal and regulatory barriers
- Automation should also boost productivity significantly and, as the extra wealth this generates is spent/invested, this should feed through into additional jobs in less automatable sectors
- But there could be significant labour market disruption in the process, and possibly also a further rise in income/wealth inequality

## ***Summary: will robots steal our jobs?***

**1**

Up to around 30% of UK jobs could potentially be at high risk of automation by the early 2030s, lower than the US (38%) or Germany (35%), but higher than Japan (21%).

**2**

The risks of automation by the early 2030s appear highest in sectors such as:

- transport and storage (56%)
- manufacturing (46%)
- wholesale and retail trade (44%)

But lower in sectors like health and education where social skills are important

**3**

For individual workers, the key differentiating factor is education. For those with just GCSE-level education or lower, estimated potential risk of automation by early 2030s is 46%, compared to only 12% for university graduates

**4**

In practice, not all of these jobs will actually be automated for a variety of economic, legal and regulatory reasons. Furthermore, new 'smart automation' technologies will boost productivity and wealth – as this wealth is spent, it will create additional jobs in hard to automate sectors.

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