## 3 – Consumer spending prospects after Brexit

#### **Key points**

- Consumer spending has grown by an average of 2.4% per annum faster than inflation over the past four years, driving the overall UK economic recovery both before and after the Brexit vote.
- This has reflected rising employment levels, continued historically low interest rates, and a declining household savings ratio driven by higher borrowing and a strong housing market.
- Looking ahead, we expect real household income growth to slow in 2017-18 as rising inflation squeezes household spending power and employment growth softens. Increased borrowing may help fill the gap, but there are limits to how far this can go on a sustainable basis.
- As a result, in our main scenario we expect real consumer spending growth to moderate from around 3% in 2016 to around 2% in 2017 and 1.7% in 2018.
- We project households will spend just under 30% of their budget on housing and utilities by 2030, up from around 25% in 2016. Spending on financial services and personal care will also tend to increase relatively rapidly over time, while the share of total spending on food and clothing will tend to decline in the long run.

The impact of Brexit on the consumer will vary by category of spending. Our analysis shows that the food and clothing sectors are most exposed to the fall in the value of sterling since the Brexit vote due to a high reliance on imports. The hotel, restaurant, manufacturing and agricultural sectors are also heavily reliant on EU labour and so could be subject to disruption in the longer term if net migration from the EU is significantly reduced after Brexit (without a fully offsetting rise in non-EU net migration). Businesses need to prepare for these and other aspects of Brexit and make appropriate contingency plans.

#### Introduction

Consumer spending accounts for more than two thirds of UK GDP and is therefore the most important driver of UK economic growth. More recently, strong consumer spending has played a central role in the resilience of the UK economy both before and after the EU referendum, but will this robust growth continue in 2017 and beyond? Which areas of consumer spending might grow the fastest over the next decade? And how is Brexit expected to affect key consumer sectors?

To answer these questions, we have looked at past tends and future prospects for the two key determinants of household spending growth:

- real household disposable income (RHDI) growth, which in turn is driven by trends in real income from employment, state benefits and pensions and other private income; and
- changes in the household savings
   ratio, which are particularly
   influenced by the relative indebtedness
   of households and wealth effects
   (e.g. from house price changes).

The discussion is structured as follows:

Section 3.1	Recent trends in household disposable income
Section 3.2	Future trends in household disposable income
Section 3.3	Household savings ratio: trends and projections
Section 3.4	Alternative scenarios for consumer spending growth to 2030
Section 3.5	Projected consumer spending growth by category
Section 3.6	Potential impact of Brexit on key consumer- focused sectors
Section 3.7	Summary and

conclusions.

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#### 3.1 - Recent trends in household disposable income

The ONS defines household disposable income as the sum of earnings, state transfers (e.g. social security benefits) less direct taxes (mainly income tax and national insurance), and other net income accruing to households (e.g. from interest, dividends, rent and other transfers).

Table 3.1 show how the key drivers of household expenditure have changed over the four years to Q3 20162. This is the period which saw the UK economy start to recover on a more sustained basis. Real growth rates in the final column of the table have been calculated by deflating the nominal growth rates using the household expenditure deflator (which over this period averaged 1.4% per annum).

The most notable feature of this analysis is that household disposable income grew on average by around 1.4% per annum in real terms, while household expenditure grew a full percentage point faster at 2.4% per annum. This was associated with a decrease in the household savings ratio (adjusted to exclude changes in pension entitlements) from 4.2% to 0.6% over this period.

Table 3.1 shows that real pre-tax earnings grew by an average of 2.4% per annum over the period supported by a real increase in total wages and salaries of 1.9% per annum. This partly reflects the fact that the total number of people in employment rose by almost 2 million between Q3 2012 and Q3 2016, as well as a recovery in average real earnings per employee in 2015-16 as inflation fell sharply.

Table 3.1: Key drivers of real household disposable income

	£ bi	llion	Avera		
	2012 Q3	2016 Q3	Nominal	Deflator	Real
Wages and salaries	176	200	3.3%	1.4%	1.9%
Household share of gross operating profits	63	77	5.1%	1.4%	3.7%
Pre-tax earnings	238	277	3.8%	1.4%	2.4%
Income tax paid	-48	-54	3.4%	1.4%	2.0%
National insurance contribution by workers	-32	-36	3.1%	1.4%	1.7%
Post-tax earnings	158	186	4.1%	1.4%	2.7%
Social security benefits	82	88	2.0%	1.4%	0.6%
Post-tax earnings and benefits	240	274	3.4%	1.4%	2.0%
Net property income received (interest, dividends, rent etc.)	36	39	1.9%	1.4%	0.5%
Net current transfers	10	7	-8.8%	1.4%	-10.2%
Household disposable income	286	320	2.8%	1.4%	1.4%
Adjustment for change in pensions entitlements	16	16	0.0%	1.4%	-1.4%
Available household resources	302	336	2.7%	1.4%	1.3%
Memo: Household expenditure	274	318	3.8%	1.4%	2.4%

Sources: PwC analysis of ONS data

Note\*: Totals may not correspond exactly to the sum of sub-categories due to rounding

<sup>2</sup> This is the last period for which detailed household income data were available at the time of writing.

Profits earned by the self-employed and owners of small businesses grew even more strongly, at an average real rate of around 3.7% per annum over the four years. This reflects a shift towards self-employment and small business start-ups since around 2010.

However, Table 3.1 also shows that there are three areas that have dampened growth in real household disposable income over the period:

- **Social security benefits:** the modest overall real average rate of growth of 0.6% per annum for this item disguises the divergence between benefits paid to those of working age and those to the retired. Specifically, total state pensions have grown at a real annual average rate of 3.3% during the 2012-2016 period contrasting with an average real decrease in total personal tax credits and equivalents of around 3% per annum over the same period<sup>3</sup>. In part the latter trend is explained by the improving employment situation in the UK since 2012, which has reduced the number of people receiving working age benefits.
- **Net property income:** this category of income has also seen relatively slow real growth (0.5% per annum), due in particular to the fact that that interest rates on savings have remained at record lows, although of course this also applies to loan interest rates.
- Net current transfers: this income category includes transfers to consumers in the form of financial gifts, and some insurance claims, but excludes government transfers. These transfers have decreased sharply since Q3 2012 largely as a result of falling insurance claims over the period (from a high of £6.4bn in 2013 to just under £5bn in 2015 in nominal terms). However, this is a comparatively small element of household income (around 2% of the total) so the effect on overall household income growth is not that great.

The final row in Table 3.1 shows that total real household resources grew by 1.3% per annum after taking into account the change in the adjustment of pension fund entitlements. However, such changes in pension values are unlikely to be perceived by most households as usable income, so we prefer to exclude this from the analysis by focusing on an 'adjusted household savings ratio' defined as the difference between household disposable income and expenditure as a % of disposable income. This is lower than the standard ONS definition based on household resources rather than disposable income, but gives a more realistic indication of the extent to which the household sector in aggregate is saving or borrowing.

<sup>3</sup> Department for Work & Pensions Expenditure Caseload forecasts (2016).

#### 3.2 - Future trends in household disposable income

So how will household disposable incomes fare in the future? Clearly there are many uncertainties in projecting its growth, but Table 3.2 sets out a plausible main scenario for real growth for each of the key elements of household disposable income growth. In particular we assume that:

- Total income from wages and salaries will grow at only a modest real rate of 0.7% in 2017 and around 1% in 2018 due to higher inflation and softer employment growth, before gradually returning to a trend rate of around 2% per annum by 2020.
- Income of households from gross **operating profits** will continue to grow more strongly than wages and salaries for at least the next few years as trends to increased selfemployment continue.
- Income tax and national insurance receipts will grow broadly in line with wages and salaries.
- **Social security benefits** will fall in real terms in 2017 due to higher inflation and the government's welfare cap for working age benefits. Beyond 2017, the average rate of benefits growth is a little stronger, driven by state pensions, but still relatively modest in real terms as welfare reform programmes continue.

Table 3.2: Main scenario projections of real gross household disposable income growth

	2016e	2017p	2018p	2019p	2020p
Wages and salaries	2.1%	0.7%	1.0%	1.6%	2.0%
Household share of gross operating profits	4.2%	1.8%	2.0%	2.7%	2.4%
Pre-tax earnings	2.7%	1.0%	1.3%	1.9%	2.1%
Income tax paid	2.7%	0.5%	0.9%	1.3%	1.9%
National insurance contribution by workers	1.5%	0.3%	1.2%	1.8%	2.1%
Post-tax earnings	2.9%	1.3%	1.4%	2.1%	2.2%
Social security benefits	1.8%	-0.7%	0.4%	0.4%	1.4%
Post-tax earnings and benefits	2.5%	0.7%	1.1%	1.6%	2.0%
Net property income received (interest, dividends, rent etc.)	-0.1%	-2.6%	0.8%	0.8%	1.6%
Net current transfers	-18.4%	3.1%	2.6%	2.2%	2.0%
Household disposable income	1.6%	0.3%	1.1%	1.5%	1.9%

Sources: PwC main scenario projections

**Net property income** will shrink by 2.6% in 2017 with only a gradual real recovery in later years as the Bank of England gradually increases its policy rate.

Based on these assumptions, we project that real household disposable income growth will be only around 0.3% in real terms in 2017 (down from an estimated 1.6% in 2016) before converging towards a long-term real trend rate of around 2% per annum in 2020 (and beyond in our illustrative projections to 2030 below). To see how this translates to consumer spending growth we also need to consider how the household savings ratio will change over this period.

### 3.3-Household saving ratio: trends and projections

The official household savings ratio is defined by the ONS as the difference between available household 'resources' (household disposable income plus an adjustment for the change in pension entitlements) and household expenditure, expressed as a proportion of household resources.

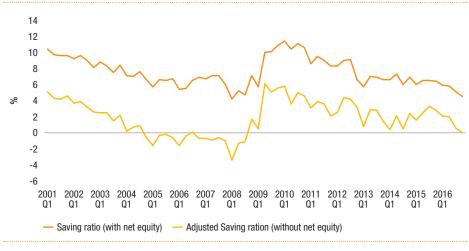
As discussed above, we prefer to focus on an adjusted savings ratio excluding changes in pension entitlements. Figure 3.1 shows how this adjusted ratio compares to the standard ONS measure.

Both saving ratios show broadly similar trends over time but at significantly lower levels for the adjusted savings ratio. We can see that the latter dropped gradually from around 5% in 2001 to around -3% just before the recession began. This took place in a prolonged period of economic stability and easing credit conditions, allowing household debt levels to increase.

Following the shock of the recession, household confidence and borrowing slumped and the adjusted savings ratio jumped sharply to around 6% in 2009. Since the end of the recession in mid-2009, however, the adjusted savings ratio has trended down again as confidence and consumer borrowing revived. The latest post-Brexit adjusted savings ratio for Q3 2016 is close to zero, though still some way above pre-crisis lows.

So how much further, if at all, might the household savings ratio fall in the future, and is a negative adjusted savings ratio sustainable in the longer term?

Figure 3.1 – Historical trends in official and adjusted UK household savings ratios



Source: PwC analysis of ONS data

Table 3.3: Projections of the adjusted household savings ratio in alternative PwC scenarios (% per annum)

	2016e	2017p	2018p	2019p	2020p
Greater fall in saving ratio	1.2%	-1.3%	-2.5%	-3.2%	-3.7%
Main scenario	1.2%	-0.5%	-1.0%	-1.3%	-1.4%
Smaller fall in saving ratio	1.2%	0.4%	0.4%	0.6%	1.0%

Sources: PwC analysis based on ONS data for Q1-Q3 2016

#### Projecting the adjusted household savings ratio

Projecting forward the savings ratio is subject to considerable uncertainties, reflecting the fact that it reflects the difference between two much large numbers: gross disposable income and consumer spending. To address this issue we used our in-house saving mode4 as a guide to develop three plausible scenarios for this ratio, as summarised in Table 3.3. All but one of the scenarios assume some further decline in the adjusted savings ratio between 2017 and 2020 driven by increased household borrowing, but the medium-term average of the ratio could range from around 1% to around -3.7% in the alternative scenarios.

In summary, the adjusted household savings ratio has been on a downward path since 2010 and has continued this trend even after the EU referendum. This helps explain why consumption has remained relatively strong in the aftermath of the referendum vote. We expect some further falls in the adjusted saving ratio at least in 2017, but the extent of any further decline beyond that is subject to considerable uncertainty. On the one hand, households may keep borrowing more on the basis of collateral and confidence effects from continued expected rises in house prices; on the other hand, an eventual gradual rise in UK interest rates in the medium to long run could dampen this confidence and deter borrowing.

<sup>4</sup> In the November, 2014 UK Economic Outlook we built a model for the adjusted saving ratio with two explanatory variables. For more details on the modelling methodology please see the technical appendix at http://pdf.pwc.co.uk/ukeo-consumer-recovery-nov-2014.pdf

#### 3.4 - Alternative scenarios for consumer spending growth to 2030

We now combine our household disposable income projections from Table 3.2 with our alternative savings ratio scenarios from Table 3.3 to derive scenarios for real consumer spending growth to 2030. Specifically, as set out in Tables 3.4-3.6:

- Our main scenario projects real household consumer spending growth will slow down from around 3% in 2016 to around 2% this year followed by a further moderation to 1.7% in 2018. A squeeze on real disposable income growth from higher inflation is the main factor behind the 2017 slowdown, offset in part by some further rise in household borrowing leading to the adjusted savings ratio falling into negative territory this year. Real disposable income growth is projected to be somewhat stronger after this year, but with the savings ratio flattening off this leads to a further moderation in real consumer spending growth in 2018, followed by a gradual recovery to around its 2% long-term trend<sup>5</sup> from 2020 onwards. This growth profile is broadly similar to the latest OBR forecasts for consumer spending, although they expect an even greater slowdown in 2018 in particular.
- Our **optimistic scenario** is stronger in the short-term due primarily to a sharper further rise in household borrowing in 2017-18 that pushes down the savings ratio to -2.5% by 2018. This type of scenario could be associated with better than expected progress being made in the UK-EU Brexit negotiations together with generally strong global growth conditions. In the long-run, we assume that real disposable income grows faster than the main scenario due to higher UK productivity growth and so supports trend real household expenditure growth of around 2.5% per annum.

Our **pessimistic scenario** assumes that the savings ratio bottoms out at 0.4% in 2017-18 and then edges up again while real disposable income growth is relatively sluggish. This type of scenario could be associated with less confident UK consumers due to problems in both the global economy and the Brexit negotiations in the medium term, together with disappointing UK productivity growth in the longer term beyond 2020.

While we consider our main scenario to be the most plausible, the other two alternatives are well within the bounds of possibility given current political and economic uncertainties. Consumerfocused businesses would do well to make contingency plans for the downside scenario in particular given the uncertainties associated with the Brexit process over the next few years.

Table 3.4: Main scenario projections of growth in real household expenditure

	2016e	2017p	2018p	2019p	2020p	Average 2021-30p
Real household expenditure	3.1%	2.0%	1.7%	1.8%	2.0%	2.0%
Real household disposable income	1.6%	0.3%	1.1%	1.5%	1.9%	
Adjusted saving ratio	1.2%	-0.5%	-1.0%	-1.3%	-1.4%	

Sources: ONS data for Q1-Q3 2016, PwC estimates and projections for later periods. The figures for 2021-30 are illustrative assumptions for consumer spending only based on alternative views of long-term trend UK GDP growth.

Table 3.5: Optimistic scenario projections of growth in real household expenditure

	2016e	2017p	2018p	2019p	2020p	Average 2021-30p
Real household expenditure	3.1%	3.1%	2.8%	2.8%	2.9%	2.5%
Real household disposable income	1.6%	0.5%	1.6%	2.0%	2.4%	
Adjusted saving ratio	1.2%	-1.3%	-2.5%	-3.2%	-3.7%	

Sources: ONS data for Q1-Q3 2016, PwC estimates and projections for later periods. The figures for 2021-30 are illustrative assumptions for consumer spending only based on alternative views of long-term trend UK GDP growth.

Table 3.6: Downside scenario projections of growth in real household expenditure

	2016e	2017p	2018p	2019p	2020p	Average 2021-30p
Real household expenditure	3.1%	0.9%	0.4%	0.7%	1.1%	1.5%
Real household disposable income	1.6%	0.1%	0.5%	0.9%	1.4%	
Adjusted saving ratio	1.2%	0.4%	0.4%	0.6%	1.0%	

Sources: ONS data for Q1-Q3 2016, PwC estimates and projections for later periods. The figures for 2021-30 are illustrative assumptions for consumer spending only based on alternative views of long-term trend UK GDP growth.

This is calibrated to match the long-term trend GDP growth rate of around 2% per annum for the UK in the  $2020s \ as \ estimated \ in \ our \ latest \ World \ in \ 2050 \ report \ here: http://pwc.com/world 2050 \ . \ We \ do \ not \ try \ to \ not \ try \ to \ not \ try \ to \ not \$ break down longer term consumer spending growth between household income and savings ratio changes since this is not needed for the analysis and it is hard to anticipate that far ahead how consumer borrowing behaviour in particular will evolve.

#### 3.5 - Projected consumer spending growth by category

Total consumer spending is projected to grow reasonably steadily in our main scenario, but from a business perspective it is important to understand which sectors are likely to see the strongest growth rates. To make these projections, we have updated our in-house longer term consumer spending model, results from which we last published in November 2015.

This econometric model uses factors such as real income levels, relative price levels, demographics and income distribution to project how future consumer spending growth could vary across the main categories of spending. We project these factors forward to 2020 on an annual basis and then also provide some more illustrative longer term projections to 2030. In these projections, as summarised in Figure 3.2 and Table 3.7, we have assumed in particular that:

- total UK household expenditure grows at rates set out in the main scenario in Table 3.4;
- income distribution remains at the latest levels as calculated by the ONS; and
- population shares by age group evolve according to the latest ONS forecasts, which imply a steady rise in the proportion of people above the age of 65.

Figure 3.2 – Historical trends and main scenario pro	oiections for household budg	et shares to 2030
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1985 Rank		Spending Share	 2016 Rank		Spending Share	 2030 Rank		Spending Share
1	Housing & utilities	26.6%	1	Housing & utilities	25.4%	1	Housing & utilities	29.0%
2	Transport	12.6%	2	Transport	13.9%	2	Miscellaneous	15.0%
3	Food	12.2%	3	Miscellaneous	13.3%	3	Transport	12.4%
4	Miscellaneous	9.5%	4	Recreation & Culture	10.1%	4	Recreation & Culture	10.6%
5	Hotels and restaurants	8.8%	5	Hotels and restaurants	9.3%	5	Hotels and restaurants	9.4%
6	Recreation & Culture	7.9%	6	Food	8.2%	6	Food	5.7%
7	Clothing and footwear	6.0%	7	Clothing and footwear	5.8%	7	Furnishing	5.2%
8	Alcohol and tobacco	5.5%	8	Furnishing	4.8%	8	Clothing and footwear	4.3%
9	Furnishing	5.3%	9	Alcohol and tobacco	3.8%	9	Alcohol and tobacco	3.1%
10	Health	3.4%	10	Communication	2.0%	10	Health	1.9%
11	Communication	1.6%	11	Health	1.8%	11	Communication	1.8%
12	Education	0.6%	12	Education	1.6%	12	Education	1.6%

Sources: ONS for historical data, PwC for main scenario projections

Table 3.7 shows that, by 2030, we estimate that households will allocate around 29% of their spending to housing and utilities, compared to around 25% in 2016. This reflects our expectation, based on past research<sup>6</sup>, that supply shortages will keep house prices and rents growing faster than incomes on average. The miscellaneous services category, which includes financial services (including credit cards and insurance) and personal care, is expected to be the second largest expenditure item by 2020 (replacing transport), at almost 14% of total household spending. This makes sense as interest rates are expected to increase gradually in the medium-term, and insurance premiums, including tax, may also tend to rise.

We can also see that the leisure categories (recreation, culture, hotels and restaurants) are also relatively income-elastic and so tend to increase their share of total spending over time as real incomes increase. In contrast, more basic items like food, alcohol and tobacco, and clothing will tend to see their spending shares decline in the long run, continuing the historic trends shown in Figure 3.2.

Table 3.7: Household budget share projections to 2030 and implied average real growth rates by household spending category in main scenario

	SI	pending shar	Implied average real growth rates			
	2016e	2020p	2030p	2016-20p	2021-30p	
Alcohol and tobacco	3.8%	3.6%	3.1%	1.3%	0.4%	
Clothing and footwear	5.8%	5.3%	4.3%	0.4%	-0.1%	
Communications	2.0%	1.9%	1.8%	1.3%	1.6%	
Education	1.6%	1.6%	1.6%	1.8%	2.0%	
Food	8.2%	7.6%	5.7%	0.8%	-0.7%	
Furnishings	4.8%	5.0%	5.2%	2.5%	2.6%	
Health	1.8%	1.8%	1.9%	1.9%	2.5%	
Housing and utilities	25.4%	26.0%	29.0%	2.4%	3.1%	
Miscellaneous services	13.3%	13.9%	15.0%	2.5%	2.8%	
Recreation and culture	10.1%	10.3%	10.6%	2.2%	2.4%	
Hotels and restaurants	9.3%	9.3%	9.4%	1.8%	2.2%	
Transport	13.9%	13.7%	12.4%	1.4%	1.1%	
Total spending	100%	100%	100%	2.1%	2.0%	

Sources: ONS data for Q1-Q3 2016 and PwC estimates and main scenario projections for later periods.

 $See, for example, the article on housing \ market \ prospects \ in the \ July \ 2016 \ edition \ of \ UK \ Economic \ Outlook \ here:$ https://www.pwc.co.uk/assets/pdf/ukeo/ukeo-july-2016-housing-market-outlook.pdf

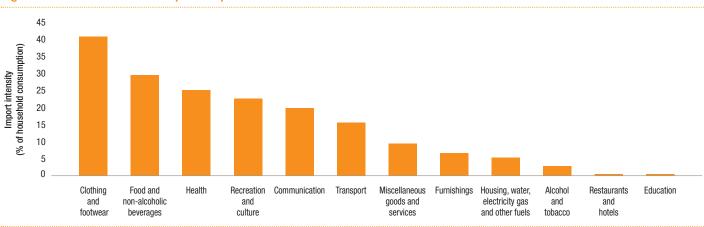


Figure 3.3 - Household consumption import intensities

Sources: PwC analysis of ONS data

## 3.6 – Potential impact of Brexit on key consumer-focused sectors

The future relationship between the UK and the EU is clearly subject to considerable uncertainties and could have many different types of effects on UK businesses (e.g. reconfiguration of supply chains across Europe for some consumer goods). Many of these impacts may be hard to predict in advance given the uncertainties involved and the complexities of the large multinational businesses operating in consumer-related sectors.

However, there are two Brexit-related factors where we can most readily use hard data to try to assess, at least in broad terms, which industry sectors may be more or less exposed to possible adverse effects:

 Foreign exchange rate: the fall in the pound has been the most immediate economic effect of the Brexit vote and we can consider how far different sectors rely on imports to evaluate how exposed they may be to this change (exporters may gain, of course, be this is less relevant for those businesses targeting domestic consumer spending, which is our focus in this article). • Reliance on EU migrant labour: looking further ahead to after the UK actually leave the EU, any significant change in the current freedom of movement of workers between the UK and the EU could have important implications for businesses in sectors that are more reliant on EU migrant labour (assuming this is not offset fully by higher net immigration of non-EU workers, which is not current government policy).

We analyse these two effects in turn below.

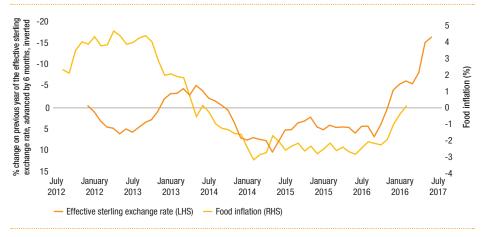
#### Impact of Brexit through the foreign exchange rate channel

The most immediate impact of the referendum vote was felt in the depreciation of sterling by around 10%7 against its major trading partners. In general, this means that the "imported" element of the products and services households buy becomes more expensive.

Figure 3.3 shows the reliance of household consumption on imports (so-called "import intensities") using latest available data from the ONS<sup>8</sup>. This shows that clothing and footwear has the highest import intensity, followed by food and non-alcoholic beverages. These are also two sectors facing many other cost pressures, particularly for traditional high street retailers (e.g. relating to the national living wage, business rates and rents, particularly in London and the South East). Such retailers are also facing increasing competition from online retailers and discounters.

Whether the full costs of a weaker pound (once short-term hedges run out) will be passed on to consumers is therefore unclear, but in any case such retailers will suffer from some combination of squeezed margins or, if they try to pass on cost increases, reduces sales volumes.

Figure 3.4 - Relationship between food inflation and the effective sterling exchange rate



Sources: PwC analysis of ONS and Bank of England data

We are already seeing evidence of imported price increases coming through the detailed inflation figures as show in Figure 3.4 for food price inflation, albeit with some lag that could reflect a mixture of forward hedging of exchange rates and competitive constraints on price rises.

For other spending categories, the estimated import intensity is less than 30%. Generally the more non-tradeable sectors e.g. education and housing have lower import intensities as would be expected. The data suggest that the health sector is also quite reliant on imports, however, which probably reflects reliance on imports of medical equipment and pharmaceutical products not produced in the UK.

### Possible sectoral impact of Brexit due to future changes in EU migration flows

How reliant are different sectors of the UK economy on EU migrant labour?9 To answer this question we looked at ONS data on the breakdown of foreign nationals in the UK workforce.
Our analysis in Figure 3.5 shows that:

• Around one in ten workers across the UK are foreign nationals with around 6% of jobs held by workers from other EU countries whilst around 4% are held by workers from the rest of the world. The majority of the EU workers in jobs in the UK are from Eastern Europe, though numbers from countries like France, Spain, Greece and Italy have risen due to the high unemployment rates in these countries following the financial crisis.

<sup>7</sup> We calculated the change in sterling's effective exchange rate since June 2016 based on monthly average data to February 2017 from the Bank of England.

<sup>8</sup> The ONS produce the "import intensity" of final household consumption for each classification of individual consumption by purpose (COICOP). "Import intensity" refers to the percentage of final household consumption which is directly satisfied by imports. Using sensible assumptions we mapped the different COICOP categories to the household expenditure budget share categories. We then estimated the import intensity for each budget share category by calculating the unweighted, arithmetic average import intensity.

<sup>9</sup> For more detailed analysis of London in particular, see PwC's recent report with London First here: http://www.pwc.co.uk/services/legal-services/services/immigration/facing-facts--the-impact-of-migrants-on-london--its-workforce-an.html

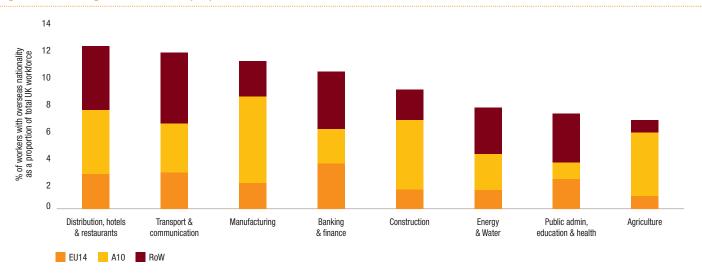


Figure 3.5 - Foreign nationals as a proportion of the UK workforce

Source: ONS

Note: EU14 refers to the first 15 countries admitted to the European Union excluding the UK. A10 economies include all of the economies admitted in May 2004 and January 2007, excluding Cyprus and Malta. Therefore, the rest of the world countries include Cyprus, Malta and Croatia.

- In all but one of the sectors shown in Figure 3.5 (public administration, education and health), EU nationals are a more important source of workers compared to those from the rest of the world. This reflects the fact that it is comparatively easier for EU nationals to move to the UK to work, even though there are many more people in total in the rest of the world than the EU.
- The distribution, hotels and restaurants sector is the most reliant on foreign labour—more than 12% of its workers are from overseas.
   This sector employs close to 415,000 Europeans and 266,000 rest of the world nationals and so appears the most susceptible to future changes in immigration policy.

- Manufacturing, construction and agriculture are other sectors where EU labour makes up between 6-8% of the workforce.
- Restricting EU migration (without a fully offsetting rise in non-EU migration) could add to labour costs, though it may also give more incentives for the kind of automation of jobs discussed in detail in Section 4 of this report. We already see this trend to more rapid automation in retail and wholesale sectors in other EU countries where labour costs and regulatory burdens tend to be higher than in the UK at present. Shops may increasingly become 'showrooms' for products, while sales are mostly made online, so reducing the need for in-store staff.

Our analysis above highlights the importance of foreign labour as an input to businesses and public services in the UK. A key implication of this is that future immigration policy should take into account a variety of sectoral, geographical and other issues and so requires careful handling. Within consumer-focused sectors, the most vulnerable could include retailers, hotels and restaurants, and food producers and processors.

Smaller businesses may also be more exposed than larger companies that can more easily navigate the complexities of whatever new regime emerges for EU (and non-EU) migrant workers after Brexit.

#### 3.7 - Summary and conclusions

Consumer spending has been growing relatively strongly in the past four years on the back of robust employment growth, low inflation (particularly in 2015-16) and continued very low interest rates. In addition, increased consumer confidence, despite recent economic and political uncertainties, has been reflected in a declining household savings ratio driven primarily by increased consumer borrowing.

Looking ahead our analysis suggests that a downward trajectory in the adjusted savings ratio is expected to continue for a year or two before levelling off. But the exact profile of this ratio remains highly uncertain. Meanwhile, real disposable income growth will be squeezed by rising inflation and softening employment growth this year and next.

In our main scenario, we therefore project that real consumer spending growth will ease from around 3% in 2016 to around 2% in 2017 and 1.7% in 2018, before returning to around 2% trend growth in 2020 and beyond. Other scenarios show medium-term real consumer spending growth rates in the range of around 1-3% per annum up to 2020, however, so businesses need to plan for alternative outcomes.

We project that housing and utilities will continue to make up a rising share of total consumer spending, reaching around 29% by 2030 compared to around 25% in 2016. We also expect that financial services and personal care will take a rising share of total consumer spending, while clothing, food, alcohol and tobacco will continue their relative long-term decline.

Brexit adds an additional layer of uncertainty to our consumer spending projections, but we can analyse some potential impacts relating to the weaker pound and possibly future changes in migration policy after the UK leaves the EU. On the first topic, our analysis shows that the clothing and food sectors are potentially most exposed to the fall in sterling due to their high reliance on imports.

Meanwhile, our analysis of sectors which are most reliant on migrant EU labour shows that the retail, hotel and restaurants sectors could prove to be most vulnerable to any significant restrictions on EU workers coming to the UK after Brexit, together with food production and processing and construction. Such sectors need to start making plans now both to help existing EU workers to register as UK residents where possible, and to consider other options like expanding recruitment and training of UK nationals (or non-EU nationals if migration regimes for these are relaxed after Brexit, though this is not current government policy).

Possible reduced availability of relatively low cost labour from other EU countries after Brexit might also increase the incentive for automation in the most affected sectors, as discussed further in the next section of this report.

In summary, while total consumer spending growth is likely to moderate in 2017-18, the aggregate picture does not look too bad. But some consumer-focused sub-sectors are likely to see relatively slower long term spending growth and this will be combined with possible adverse effects from the weaker pound, other cost pressures and potential future migration constraints after Brexit. Businesses in these sectors therefore need to start making appropriate plans now to adjust to alternative post-Brexit scenarios as and when they arise.

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