#GE2017Economists: The research evidence on key issues for voters in the 2017 UK General Election
Centre for Economic Performance

The CEP is an interdisciplinary research centre at the London School of Economics and Political Science. It was established in 1990 and is now one of the leading economic research groups in Europe.

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#GE2017Economists: 
The research evidence on key issues for voters in the 2017 UK General Election

June 2017
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Introduction
The unexpected UK general election of 2017 was intended to be all about Brexit, one that will give the incoming government a mandate to negotiate the terms of the UK’s exit from the European Union (EU). But many other public policy issues have been at the forefront of political and public debate during the campaign.

The Centre for Economic Performance (CEP) at the London School of Economics has focused on eight key areas, producing a series of briefings summarising the research evidence and evaluating relevant policy proposals in the party manifestos. This report brings together those briefings – which draw on the work of many CEP researchers and other economists – into one single Election Analysis.

The report begins with a look at what has been happening to real wages and living standards by CEP’s director Stephen Machin. He notes that higher price inflation as a result of sterling’s depreciation following the vote to leave the EU, coupled with nominal wage growth stuck at a norm of 2% a year, means that once again the UK faces falling real wages, threatening family living standards.

Planned public spending on education and healthcare has been a prominent topic of debate during the campaign. Here, Alistair McGuire concludes that the planned uplifts in healthcare expenditure promised in the party manifestos, whether or not coupled with further efficiency savings, may or may not address all the needs of the NHS. And they need to be maintained against a background of hospital deficits, labour force shortages and failing performance.

In the briefing on education and skills, Sandra McNally explains that on current trends, funding per pupil in primary and secondary schools is set to fall significantly. While all parties promise a change in total education expenditure, the increase is actually far more modest when put in the context of rising pupil numbers. What’s more, the educational funding outlook for young people aged between 16 and 18 is much worse.

The education and skills briefing also discusses higher education. Gill Wyness says that Brexit represents a threat to student numbers, though opinions vary on the potential impact on the sector. It is probable that numbers of students from the EU will decline, since they are likely to face fee increases and will lose the right to access fee loans. The damage to the UK’s
reputation as a place that welcomes foreign students could also result in further declines in student numbers from both the EU and elsewhere in the world.

Turning to the overarching question of Brexit itself, Swati Dhingra and Thomas Sampson show that leaving the EU with no deal in place for future trading arrangements would be the worst-case scenario for the UK economy. Even leaving the Single Market and the customs union would mean the UK experiencing higher trade barriers, lower trade and reduced living standards.

In the aftermath of the vote to leave the EU, all of the main political parties have highlighted the importance of an ‘industrial strategy’ with the aim of improving economic growth and achieving more balance in how its gains are distributed across people and places. Anna Valero points out that a successful modern industrial strategy should combine economy-wide policies – such as ensuring schools are adequately resourced and stimulating investment in infrastructure or research and development (R&D) – with more focused sector or place-based policies that seek to address specific market failures that hold back growth.

Henry Overman picks up the challenge of place-based policies in his briefing on the regional divide. Despite numerous efforts to do something about the big variations in economic performance across the cities and regions of the UK, little has been achieved in reducing long-run differences. This is unsurprising since the economic processes that drive spatial differences are poorly understood by policy-makers, and evidence has historically played little part in the formulation of policy.

Jonathan Wadsworth focuses on another big post-Brexit challenge: the apparent public desire to reduce immigration. It is clear that any reductions in UK immigration from the EU are likely to lead to lower living standards for the UK-born. This is partly because immigrants help to reduce the deficit: they are more likely to work and pay tax; and they are less likely to use public services as, on average, they are younger and better educated than the UK-born. Universities and sectors of the economy that employ science professionals and workers in processing and elementary occupations would be most under pressure from attempts to reduce immigration.

Finally, Ralf Martin explores the global threat of climate change, which has not been particularly high on the election agenda except in as far as it relates to energy prices. The Great Recession and the sluggish economic recovery that has followed it were instrumental in meeting the legally binding targets for reducing carbon emissions that the UK has set for itself. But without more drastic policy interventions, it is unlikely that future targets will be met – unless the more extreme forecasts for the damage that Brexit might cause to economic activity are realised.

June 2017

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Summary Points
CEP ELECTION ANALYSIS
Real Wages and Living Standards in the UK

- Real wages of the typical (median) UK worker have fallen by almost 5% since 2008, reflecting a sizable fall from 2008 to 2014, and a modest bounce back in the following two years. Compared with the trend of 2% annual growth of real wages from 1980 to the early 2000s, this represents around a 20% shortfall.

- The recent pattern of real wage growth in the UK is weaker than in the majority of other OECD countries.

- The modest real wage recovery that started in 2014 has recently been eroded by two factors: first, higher price inflation as a consequence of the depreciation of sterling following the vote to leave the European Union (EU) in the 2017 referendum; and second, nominal wage growth becoming stuck at a 2% norm.

- Low-wage workers have benefited from minimum wage increases, especially the 2016 introduction of the National Living Wage. They have done better than workers higher up the wage distribution, thus leading to a modest decrease in wage inequality.

- Young workers have been the ones most affected since the crisis, experiencing a sharp fall in real weekly wages (of the order of 16% for workers aged 18-21), linked to lower hours, part-time work and self-employment arrangements.

- Self-employment has been on the rise, but only for individuals without employees. Many of these individuals receive low incomes, and are often employed in ‘gig economy’ positions, with little access to some of the non-wage benefits that employees receive.

- Family incomes have recovered to pre-crisis levels and done better in growth terms than wages, largely due to the tax and benefit system. In particular, pensioners have fared significantly better due to the ‘triple lock’ policy and the tax and benefit system.

- Three sets of manifesto promises are of particular relevance to UK real wages and living standards: proposed changes to minimum wages; classifications of employees and the self-employed, and proposals on insecure work; and amendments to the ‘triple lock’.
CEP ELECTION ANALYSIS
The NHS and Social Care:
Prospects for Funding, Staffing
and Performance into the 2020s

- The UK currently spends 9.8% of GDP on healthcare but this percentage is due to fall as GDP rises. It is a slightly lower share than in other northern European countries.

- The NHS absorbs the overwhelming proportion of total spending on healthcare, currently standing at £138 billion per year and accounting for approximately a fifth of all the UK’s public spending.

- While the organisational structure and delivery varies across the four constituent nations of the UK, there is no evidence that the purchaser-provider split that dominates NHS England is any worse in delivering health outcomes than the more centralised health systems in Scotland, Wales and Northern Ireland.

- The 2012 Health and Social Care Act led to a large-scale reorganisation of the NHS in England, but it appears to have been largely ineffective in improving services.

- The recent growth of NHS spending has been relatively low, increasing at 1% per year in real terms between 2010 and 2015, well below the long-run average growth rate of 4% per annum.

- There is increasing criticism that the NHS is underfunded, and will continue to be into the 2020s with increasing demands from an ageing population. Estimates of the shortfall are put at £30 billion.

- In response, the government has allocated £10 billion additional funding to the NHS from 2015/16 through to 2020/21. With additional productivity savings of 2-3% per annum, the government argues that the shortfall in NHS expenditure will be met.

- But the size of the additional allocated funds is disputed. Some have corrected the figure to £4.2 billion.

- Moreover, many doubt that the accompanying 2-3% productivity gains, which are necessary to meet the predicted expenditure shortfall, can be achieved.

- The integration of health and social care is increasingly seen as a major means of alleviating pressure on the NHS. But social care faces its own funding crisis.

- While there is no ‘correct’ level of NHS funding, as this depends on social preferences as much as needs, determining NHS funding will remain a challenge regardless of which party is in government.
CEP ELECTION ANALYSIS
The UK’s New Industrial Strategy

- The UK’s continued poor productivity performance since the financial crisis and new economic challenges – in particular, related to Brexit – necessitate the formulation of a new, overarching and long-term industrial strategy. Such a strategy must aim for growth that is fairly distributed across society and space, and is environmentally sustainable.

- Chronic underinvestment in skills, infrastructure and innovation has held back growth in the UK. A successful modern industrial strategy should combine economy-wide policies – such as ensuring schools are adequately resourced and stimulating investment in infrastructure or R&D – with more focused sector or place-based policies that seek to address specific market failures that hold back growth.

- Institutional reform is key to differentiating a new industrial strategy from collections of business policies that have gone before. The aim should be an industrial strategy that is based on political consensus and institutions that give it stability and protection from the political cycle.

- All three main parties are committed to having an industrial strategy and to providing more support for innovation. But there are major differences in the parties’ business policies. Labour would significantly raise business taxes and government borrowing to finance large-scale spending and investment in skills and infrastructure, and plans to renationalise the major utilities. The Conservatives would keep taxes low, and maintain commitment to a smaller level of borrowing for public investment, as announced in the last Autumn Statement.

- Both the Conservatives and Labour would seek to intervene in energy markets by setting price caps of some form. Such policies could have negative impacts on competition: it is preferable to strengthen the role of regulators and take further steps to stimulate effective competition.

- The Conservatives’ policies of arbitrary immigration targets, restrictions on foreign students and increasing the costs for firms that employ non-UK workers are likely to hurt productivity.
CEP ELECTION ANALYSIS
Immigration and the UK economy

Immigration is once again a key issue in the election campaign. This briefing outlines the current facts on immigration and its effects on the UK – and discusses immigration policy options for the parties in the light of Brexit.

- There are now 9 million individuals (7.4 million adults of working age) in the UK who were born abroad, twice the number 20 years ago. The number of immigrants from EU countries has tripled from 0.9 million to 3.3 million over the past 20 years.

- Much of the recent falls in net immigration are driven either by a rise in emigration or a fall in the number of Britons returning to the UK – things over which the government has very little control.

- Many people worry that immigration may reduce the pay and job prospects of the UK-born since this means more competition for jobs. But immigrants consume goods and services. This will raise overall demand and help create more employment opportunities. Immigrants may have skills that complement those of UK-born workers, which can also raise demand. We need empirical evidence to settle the issue of the economic impact of immigration on the UK-born.

- The latest evidence suggests that neither immigration as a whole nor EU immigration has had significantly large negative effects on employment, wages and wage inequality for the UK-born population. Nor, it should be said, have there been large positive effects.

- Immigrants do not take most new jobs. The immigrant share in new jobs is – and always has been – broadly the same as the share of immigrants in the working age population.

- Areas of the UK with large increases in total or EU immigration have not experienced greater falls in either jobs or pay of UK-born workers. The big falls in wages observed after 2008 are more closely associated with the fallout from the global financial crisis than immigration.

- There is little effect of immigration on inequality and the relative pay and job prospects of less skilled UK workers. Changes in wages and joblessness for less educated UK-born workers show little association with changes in immigration.

- Immigrants pay more in taxes than they take out in welfare and use of public services. UK-born individuals, on average, take out more in welfare and benefits than they pay in taxes. So immigrants help to reduce the budget deficit. There is little evidence that immigrants have negative effects on crime, education, health or social housing.

- The parties go into the election all promising to manage migration. Brexit will force the next government into big but, as yet, unaddressed decisions about immigration from the EU on how much and what groups to control.
CEP ELECTION ANALYSIS
Brexit and the UK Economy

- The June 2016 referendum gave a mandate for the UK to leave the European Union (EU), but offered no guidance on what form Brexit should take.

- CEP research finds that remaining in the Single Market would minimise the economic costs of Brexit. Leaving the EU without any new deal in place would be the most costly alternative.

- There is not yet any clear evidence that Brexit has affected UK GDP, but this does not mean Brexit has had no effect on the economy. The Brexit vote has already made the UK poorer by reducing the value of the pound.

- Between the referendum and the end of April 2017, sterling depreciated by 13% against the US dollar and 9% against the euro. The depreciation is a signal that expectations about the UK’s future economic performance have deteriorated.

- The depreciation of sterling has hurt UK consumers by increasing the price of imports, leading to higher inflation and lower real wage growth. CPI inflation has risen from 0.5% in June 2016 to 2.7% in April 2017. Real wage growth has declined from 1.3% in June 2016 to negative 0.5% in March 2017. To date, there is no evidence that the depreciation has boosted UK exports or reduced the trade deficit.

- The Conservatives have pledged to take the UK out of both the Single Market and the customs union, while simultaneously negotiating a new partnership with the EU. Leaving the Single Market would mean the UK experiencing higher trade barriers, lower trade and reduced living standards. The Conservatives would try to mitigate these costs by seeking a new deal with as few barriers to trade and investment as possible.

- The Conservatives have not ruled out a ‘no-deal’ Brexit, leaving the EU without any new agreement in place. While it is a tautology that a sufficiently bad deal must be worse than no-deal, in practice the no-deal outcome, where the UK and EU trade under WTO terms, is the worst-case scenario for the UK economy. The economic costs of Brexit would be twice as large in the no-deal case than if the UK remains in the Single Market.

- Labour’s plan for Brexit is far from clear, but in many ways it resembles the Conservatives’ position. The only unambiguous difference is that Labour acknowledges that no-deal is the worst possible option for the UK. The Liberal Democrats propose that once a new deal has been negotiated, the UK should hold a second referendum to choose between the new deal or remaining in the EU.
CEP ELECTION ANALYSIS
Education and Skills: The UK Policy Agenda

- The UK’s overall school budget has been protected in real terms but does not provide for funding per pupil to increase in line with inflation. Because pupil numbers are increasing, large falls in expenditure per pupil are expected over the next few years unless more funding is allocated. The situation facing post-16 education is a lot worse.

- A more widespread adoption of grammar schools is very likely to increase socio-economic segregation by school type and is unlikely to lead to any increase in average educational attainment in the country.

- Although increasing intermediate skills among young people and adults is needed, many concerns have been raised about the how apprenticeship policy is being implemented. This includes an emphasis on quantity over quality and differences in the provision of training opportunities for large employers compared with small and medium-sized enterprises.

- Despite an increase in the number of apprentices, there has been a fall in the overall number of post-16 and adult learners receiving publicly funded provision outside schools and universities.

- Despite the near trebling of tuition fees in 2012, higher education participation continues to grow. Moreover, participation among disadvantaged groups has risen at a faster rate than those from more advantaged backgrounds in recent years, with this trend continuing in 2016.

- But the steep decline in enrolments from part-time students – which began in 2012 when the government raised the cap on part-time fees to £6,750 a year – continues unabated. The number of part-time students has fallen by 53% since 2011.

- Brexit represents a further threat to the sector. The number of students from the European Union is likely to fall as their fees rise and their access to loans is taken away. On the other hand, UK degrees have become cheaper as a result of the falling pound, which may potentially offset some of the decline.
CEP ELECTION ANALYSIS
The UK’s Regional Divide:
Can Policy Make a Difference?

• There are large variations in economic performance across the cities and regions of the UK and, on some measures, they have widened since the global financial crisis. All the party manifestos promise action to reduce them, but there is little difference between them in terms of the policies that they would pursue to meet this objective.

• The traditional policy mix – central government investments in local growth projects, transport and other infrastructure, funding for business support and access to finance, and a host of other interventions – has not been effective.

• Greater local control is needed to improve policy effectiveness. The government has signed a number of devolution deals and city mayors have just been elected in areas with these deals.

• It is too early to assess the effectiveness of devolution deals, but any new government will need to decide whether to support further devolution. When devolving powers, it is important that policies that have wide scale impacts (such as transport and housing) are coordinated across local areas.

• Greater experimentation at the local level combined with effective evaluation would help improve policy, but this is highly unlikely given the short-term political focus on being seen to ‘do something’, which favours the announcement of new projects over the long-term development of policy effectiveness.

• London’s strong economic performance plays a large part in explaining widening disparities. Providing an effective counter-balance to London may require policy aimed at ‘rebalancing’ to be more spatially focused – for example, on Manchester.

• We ultimately care about the effect of policies on people more than on places. Efforts to rebalance the economy should be judged on the extent to which they improve opportunities for all, rather than whether they narrow the gap between particular places.
CEP ELECTION ANALYSIS
Brexit as Climate Policy: The Agenda on Energy and the Environment

- All parties acknowledge that climate change is a bad thing and needs to be addressed. They all also acknowledge that high energy prices are an issue for UK households and businesses.

- The Conservatives offer little policy detail apart from vowing to support shale gas, a technology that the other parties would ban outright.

- Labour wants to part-nationalise the energy sector. This is based on the idea that high energy prices are the consequence of unfair practices by energy retailers and suppliers, but there is not much evidence for that claim.

- Lighter touch regulation seems more appropriate in this area along with directly targeted support of the ‘fuel poor’, proposals that feature in both the Labour and Liberal Democrat manifestos.

- Further integration with European energy markets is also a sensible strategy to keep power prices lower in the UK. But only the Liberal Democrats are sensitive to this issue and its delicateness in the context of Brexit.

- All parties express support for the legally binding climate targets that the UK has set itself. To some extent, this is ‘cheap talk’ as the targets have been generously met so far. But this was primarily due to a weak economy. It is not clear that the targets will be so easily met in the future – unless the worst-case scenarios for the damage caused to UK GDP by Brexit are realised.

- The parties offer no detail about how climate policy could be tightened in the future to ensure that the targets are met. Moreover, Brexit could lead to a vacuum in climate policy-making as the UK would be likely to leave the European Union’s emissions trading system (ETS), which currently regulates nearly half of emissions.

- More attention should also be given to how the UK’s dismal performance in clean innovation could be improved. Because of higher knowledge spillovers in this area, such a strategy could also help to improve economic growth.

- Promising a carbon price of at least £50 per tonne of carbon along with a spending target for clean research and development (R&D) could provide a useful addition to the policies offered in the manifestos.
1. Real Wages and Living Standards in the UK

Rui Costa and Stephen Machin
CEP ELECTION ANALYSIS

Real Wages and Living Standards in the UK

- Real wages of the typical (median) UK worker have fallen by almost 5% since 2008, reflecting a sizable fall from 2008 to 2014, and a modest bounce back in the following two years. Compared with the trend of 2% annual growth of real wages from 1980 to the early 2000s, this represents around a 20% shortfall.

- The recent pattern of real wage growth in the UK is weaker than in the majority of other OECD countries.

- The modest real wage recovery that started in 2014 has recently been eroded by two factors: first, higher price inflation as a consequence of the depreciation of sterling following the vote to leave the European Union (EU) in the 2017 referendum; and second, nominal wage growth becoming stuck at a 2% norm.

- Low-wage workers have benefited from minimum wage increases, especially the 2016 introduction of the National Living Wage. They have done better than workers higher up the wage distribution, thus leading to a modest decrease in wage inequality.

- Young workers have been the ones most affected since the crisis, experiencing a sharp fall in real weekly wages (of the order of 16% for workers aged 18-21), linked to lower hours, part-time work and self-employment arrangements.

- Self-employment has been on the rise, but only for individuals without employees. Many of these individuals receive low incomes, and are often employed in ‘gig economy’ positions, with little access to some of the non-wage benefits that employees receive.

- Family incomes have recovered to pre-crisis levels and done better in growth terms than wages, largely due to the tax and benefit system. In particular, pensioners have fared significantly better due to the ‘triple lock’ policy and the tax and benefit system.

- Three sets of manifesto promises are of particular relevance to UK real wages and living standards: proposed changes to minimum wages; classifications of employees and the self-employed, and proposals on insecure work; and amendments to the ‘triple lock’.
Introduction

Since the global financial crisis of 2007/08, workers’ real wages and family living standards in the UK have suffered to an extent unprecedented in modern history. Real wages of the typical (median) worker have fallen by almost 5% since 2008, while real family incomes for families of working age have just about recovered to pre-crisis levels. But almost all groups of individuals and families – with the exception of pensioner households – are no better off on average than in 2008. In particular, there is an important generational shift, with young people doing considerably worse.

Falling real wages

Figure 1 shows that median real wages grew consistently by around 2% per year from 1980 to the early 2000s. What followed was something of a slowdown, after which real wages fell dramatically when the economic downturn started in 2008. Since then, real weekly wages of the median worker have fallen by around 3-5% (depending on which measure of inflation is used as a deflator – the consumer price index, CPI, the housing cost augmented version, CPIH, or the retail price index, RPIJ). This corresponds to almost a 20% drop relative to the trend in real wage growth from 1980 to the early 2000s.

**Figure 1: Annual ASHE median real weekly earnings, 1980 to 2016**

![Graph showing median real weekly earnings from 1980 to 2016.](image)

*Notes:* Weekly earnings deflated by CPI, CPIH and RPIJ.
*Source:* Annual Survey of Hours and Earnings (ASHE).

Figure 2 focuses on the very recent experience, using the most up to date monthly official average weekly earnings (AWE regular) numbers deflated by CPI. Growth in AWE outstripped consumer price inflation until June 2008. From July 2008 onwards, real wages did not grow until a modest bounce back began in September 2014. Growth in real wages since

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1 This calculation is made assuming a counterfactual 2% growth per year trend in real wages since 2008.
2 AWE is the average weekly earnings index produced by the Office for National Statistics (ONS).
then was mainly due to a decrease in price inflation, rather than a significant increase in nominal wage growth, which appears to have become stuck at a norm of 2% per year.\(^3\)

Since the June 2016 referendum on the UK’s membership of the EU, real wages have again been weakened by rising inflation. Sterling has fallen by 15% against the dollar since the vote and according to the Bank of England’s most recent *Inflation Report*, the depreciation will lead to higher import costs, raising consumer price inflation some way above target.\(^4\) With the current 2% nominal wage growth norm, as Figure 2 shows, real wage falls have therefore returned to the UK labour market.\(^5\)

![Figure 2: Monthly nominal AWE and CPI growth, 2002 to 2017](image)

*Source: Average weekly earnings (AWE regular) and CPI from ONS.*

Table 1 shows variations in real wage growth across different groups of workers over the period 2008 to 2016. Men have seen larger falls in real wages (7%) compared with a fall of 1% for women.

Real wage falls have occurred in the top half of the wage distribution, dropping by 6% at the 90th percentile and 4% at the median. The mild increase in the 10th percentile (2%) relative to the median and 90th percentile means that inequality has not gone up during the downturn; if anything, it has decreased slightly. This contrasts with long-run wage inequality trends since 1980, which peaked at the start of the downturn (Machin, 2011).

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\(^3\) See Blanchflower and Machin (2016).


Table 1: Percentage falls in median real wages across distribution since 2008, ASHE

<table>
<thead>
<tr>
<th>Changes in Real Hourly Wages (CPI Deflator)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>-4%</td>
</tr>
<tr>
<td>Men</td>
<td>-7%</td>
</tr>
<tr>
<td>Women</td>
<td>-1%</td>
</tr>
<tr>
<td>10th Percentile</td>
<td>+2%</td>
</tr>
<tr>
<td>90th Percentile</td>
<td>-6%</td>
</tr>
<tr>
<td>NMW Adult Rate</td>
<td>+5%</td>
</tr>
</tbody>
</table>

Notes: Using CPI deflator. Updated CPI deflated numbers from Gregg et al. (2014a, 2014b). Source: ASHE. 2016 figures are based on the provisional ASHE estimates published by the ONS in October.

A closer look at the evolution of real hourly wages at different points in the wage distribution is presented in Figure 3. It shows a close relation between the relatively stronger real wage growth at the 10th percentile and the significant recent developments in minimum wage setting in the UK. In particular, the introduction of the National Living Wage (NLW) in April 2016 has contributed to a significant drive upwards at the bottom of the wage distribution (Bell and Machin, 2018). In fact, workers who were on the National Minimum Wage (NMW) and the NLW when it came in experienced 5% real wage growth between 2008 and 2016.

Figure 3: Percentiles of real hourly wage and NWM/NLW, indexed to 2008


There are big differences by age. Young workers (those aged 18-21) have suffered a considerable loss in their wages – of the order of a huge 16% fall in real weekly earnings. A significant fraction of this change can be attributed to falls in hours worked and full-time status given that, for this same group, real weekly wages of full-time workers decreased by substantially less (around 3%). The increased prevalence of self-employment arrangements...
among young workers also contributes to worsening the position of this age group as discussed below (LSE Growth Commission, 2017).

**Figure 4: Median real weekly wage by age groups**

Since the global financial crisis, UK wages have fallen by more than in other OECD countries. Figure 5 reports comparable wage growth numbers from the OECD between 2007 and 2015 for 28 countries. The UK’s relative performance is very poor, placing 27th above only Greece.
Notes: Average real wages defined by the ratio between total wage bill and average hours worked. 

The recent rise in self-employment

The composition of the UK labour market has been affected by a substantial increase in self-employment and alternative working arrangements since the economic downturn.

As Figure 6 shows, the proportion of self-employed individuals has risen significantly. But all the increase is in terms of individuals in self-employed positions who do not have any employees. This has been steadily increasing since the 1980s, but since 2000 the proportion has increased from 9% to 13% of all those in work. This group are sometimes employed in ‘gig economy’ positions, with little access to the non-wage benefits that employees receive – the right to be paid the NLW, sick pay, holiday pay, employment security and pensions.

Some of the self-employed, especially in more specialist skilled positions where pay is high (for example, consultants and programmers), do very well in terms of earnings from their self-employed status. Others, including sizable numbers of the new self-employed, have fared very badly in terms of earnings. Figure 7 confirms that self-employed people without employees have seen their median real weekly income drop significantly since 2007/08, experiencing close to a 20% loss in real terms by 2014/15. Both employees and the self-employed with workers have had milder drops compared with individuals in independent self-employed work arrangements.
Family income

Overall, median family incomes have recovered considerably faster than median wages. Table 2 shows that median real (after-tax) income increased by 2.2% in real terms between 2007/08 and 2014/15. The better performance of income is partly due to the tax and benefit system’s
automatic stabilisers (at the start of the downturn), to tax changes that increased the annual personal allowance (which in turn has reduced income tax receipts) and, most importantly, because pensioner households have actually fared much better than working age households.

Looking at the breakdown between working age families and pensioner families shows significant differences. Pensioners’ real median incomes grew by 10.5%, while those of working age families are only just back to their 2007/08 levels. The real income gains of pensioners arise from three factors: first, state pensions were linked to inflation under the ‘triple lock’6; second, older workers were largely unaffected by the rise in NICs (national insurance contributions); and third, most of the austerity policies on benefits have not been focused on this age group.7

Table 2: Percentage changes in median real family income by group, 2007-08 to 2014-15

<table>
<thead>
<tr>
<th></th>
<th>Changes in real median family income, 2007/08 to 2014/15 (CPI deflator)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>+2.2%</td>
</tr>
<tr>
<td>Working age families</td>
<td>-0.3%</td>
</tr>
<tr>
<td>Pensioner families</td>
<td>+10.5%</td>
</tr>
</tbody>
</table>

Notes: Based on Family Resources Survey, from Belfield et al (2016) with additional numbers provided by Robert Joyce. Calculations of the percentage falls in median real income are after tax and before housing costs.

It is important to note the difference in recovery between income and earnings/wages in the economy, with income recovering to its pre-crisis level whereas earnings still lag behind. The explanation lies in the tax and benefit system, which has been relatively successful in compensating for the fall in earnings.

The election context

The concern over lack of real wage growth is common across the political spectrum, and all parties have stated ambitions to try to improve the situation in their manifestos.

But other than the proposals on minimum wages, which would raise wages at the lower end of the wage spectrum, it is not straightforward to see how proposed policies contained in the manifestos of all parties could enable future pay growth for all workers.

On minimum wages, Labour advocate a £10 minimum for all workers aged 18 and over; the Conservatives commit to their plans already in place where the NLW (for workers aged 25 or more) is targeted to reach 60% of the median wage by 2020.

In the current climate of weak wage growth, these plans may place additional pressures on employers to adjust their operations. The precise margin of adjustment is not clear, but the evidence on UK minimum wages so far is that employment has not been adversely affected. Whether this would occur for the level as high as Labour proposes is uncharted research

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6 The ‘triple lock’ policy, introduced in 2010 by the Conservative-Liberal Democrat coalition government, guarantees that state pensions are updated by maximum of the three: inflation, average earnings growth or 2.5%.

7 See Hood and Waters (2017).
territory for the UK, but it is a very sizable increase. It would generate increased cost pressures that would be likely to require employers to adjust in some way. This, and the ability of employers to cope, is likely to differ across sectors.

A second set of relevant issues addressed in the manifestos is the increasingly hazy distinction around people working as employed or self-employed, and those in relatively insecure work. Labour and the Liberal Democrats propose banning zero hours contracts – our view is that such a blanket ban is unwise and that regulating such jobs would be better.

Labour go further on the self-employment question by arguing that the burden of proof needs to be shifted so that workers are classified as employees unless an employer can prove otherwise. Obviously, there are difficult legal issues associated with this, but to the extent that the policy is trying to protect workers’ rights, this seems a good strategy. The Conservatives simply propose a Commission that will publish recommendations in a report in due course.

Finally, a double lock for pensioners – removing the 2.5% rule, and keeping the wage and price growth components of the triple lock currently in place – is proposed by the Conservatives. This is likely to make very little difference relative to the triple lock, although in the current era of weak real wage growth, it may seem more equitable for family incomes across the age spectrum. This would be less relevant if wage growth returns to the labour market.

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Further reading


2. The NHS and Social Care: Prospects for Funding, Staffing and Performance into the 2020s

Alistair McGuire
The NHS and Social Care: Prospects for Funding, Staffing and Performance into the 2020s

- The UK currently spends 9.8% of GDP on healthcare but this percentage is due to fall as GDP rises. It is a slightly lower share than in other northern European countries.

- The NHS absorbs the overwhelming proportion of total spending on healthcare, currently standing at £138 billion per year and accounting for approximately a fifth of all the UK’s public spending.

- While the organisational structure and delivery varies across the four constituent nations of the UK, there is no evidence that the purchaser-provider split that dominates NHS England is any worse in delivering health outcomes than the more centralised health systems in Scotland, Wales and Northern Ireland.

- The 2012 Health and Social Care Act led to a large-scale reorganisation of the NHS in England, but it appears to have been largely ineffective in improving services.

- The recent growth of NHS spending has been relatively low, increasing at 1% per year in real terms between 2010 and 2015, well below the long-run average growth rate of 4% per annum.

- There is increasing criticism that the NHS is underfunded, and will continue to be into the 2020s with increasing demands from an ageing population. Estimates of the shortfall are put at £30 billion.

- In response, the government has allocated £10 billion additional funding to the NHS from 2015/16 through to 2020/21. With additional productivity savings of 2-3% per annum, the government argues that the shortfall in NHS expenditure will be met.

- But the size of the additional allocated funds is disputed. Some have corrected the figure to £4.2 billion.

- Moreover, many doubt that the accompanying 2-3% productivity gains, which are necessary to meet the predicted expenditure shortfall, can be achieved.

- The integration of health and social care is increasingly seen as a major means of alleviating pressure on the NHS. But social care faces its own funding crisis.

- While there is no ‘correct’ level of NHS funding, as this depends on social preferences as much as needs, determining NHS funding will remain a challenge regardless of which party is in government.
Introduction

Health featured prominently in the 2016 referendum on the UK’s membership of the European Union (EU), with the Leave campaign’s claim that Brexit would mean that £350 million extra money per week could be transferred from the UK’s EU budget contributions to the NHS. Although the current Conservative government has ruled this out, arguing that any change in UK public expenditure plans is conditional on the Brexit negotiations with the EU, the NHS remains a central focus of all the main parties’ election manifestos.

The fundamental issue is whether the NHS is adequately funded. Related to arguments over the level of funding are questions about the delivery of healthcare: in essence, what role efficiency savings and internal competition for NHS resources should play in giving appropriate incentives in the delivery of healthcare; and whether service provision is deteriorating.

Funding for the delivery of social care for the elderly faces its own crisis – and it has become a controversial issue in the election debate.

The structure of the NHS in the UK

While the NHS is national, the organisational structure differs across England, Scotland, Northern Ireland and Wales. The Health and Social Care Act (2012) introduced major changes to the delivery of healthcare in England, building on earlier reforms that had introduced an allocation of resources where GPs held resources and allocated funding to secondary (hospitals) and tertiary (specialist) healthcare providers – the so-called ‘internal market’, where money followed the patient.

The 2012 Act gave greater management power to NHS England to control day-to-day operations of the NHS, introduced as a separate entity from the Department of Health, which remains in control of national expenditure and strategy. NHS England allocates funding to over 200 clinical commissioning groups (CCGs) to purchase care from hospitals and specialist providers on behalf of the population they cover. Healthcare may be purchased from any willing provider, including those operating in the private sector. A small number of CCGs fund only specialist care.

The Act also created local health and wellbeing boards, the members of which represent the NHS, public health interests and local authorities. Local authorities are also providers of the social care that is integrated with healthcare provision.

The NHS in England retains an internal purchasing-provider split, with money following the patient as approved through CCG purchasing plans. Regulation of NHS England is performed by a number of organisations, including NHS Improvement (formerly Monitor) covering resource and funding issues, and the Care Quality Commission (CQC) covering the quality and safety of provision. The National Institute for Health and Care Excellence (NICE) provides advice on treatment aimed at increasing the quality of healthcare through providing evidence to CCGs on the effectiveness and cost-effectiveness of healthcare interventions.

The Scottish government provides funding through its devolved Scottish parliament and provision of care through 14 regional and seven special health boards within an integrated
system, where money is allocated centrally. Regional health and social care partnerships organise and provide integration across health provision and social care provision.

The Welsh government also retains central control over funding and provision through seven health boards. Similarly, the NHS in Northern Ireland is centrally funded through its devolved parliament and provision controlled through five regional health and social care trusts.

In crude terms, the difference in the funding and provision of healthcare across the UK is that England continues to operate a purchaser-provider split through a devolved management structure with funding following individual patients’ requirements. Scotland, Wales and Northern Ireland operate centralised, integrated systems of healthcare funding and provision organised by their separate governments.

There has been little assessment of the efficiency of these separate healthcare systems, partly due to the lack of comparable data. The analysis that has been undertaken finds little consistent evidence that one structure is better than the other (Bevan and May, 2014).

**Resources spent on UK healthcare**

There are increasing suggestions that the NHS is ‘underfunded’ (House of Commons Health Committee, 2016; House of Commons Committee of Public Accounts, 2017). This is reflected in the Department of Health falling into deficit in 2015/16 (Department of Health, 2016), and the increasing number of NHS hospital trusts running financial deficits. From a position of surplus in 2012/13, trusts reported a deficit of £91 million in 2013/14; and by 2015/16, the deficits had grown to a total of £2.5 billion.

The deficit would have been higher had the Department of Health not moved £950 million out of its £4.5 billion capital budget to help fund operational activities. It is estimated that over two thirds of NHS hospital trusts are now running a deficit. In 2016/17, this deficit is set to fall, partly as a result of targeted public money of £1.8 billion, but it will not be eliminated.

It is argued by many, including the House of Commons Health Committee (2016), that this financial position reflects NHS expenditure not keeping up with increasing demand for services as the UK population ages, as well as difficulties in integrating health and social care packages, leading to bed blockages and continued cost pressures associated with the rising cost of healthcare delivery.

Such pressures are of course universal. To put some perspective on this in terms of total healthcare expenditure, NHS and private expenditure, the UK in 2015 (the latest year for international comparisons) spent 9.8% of GDP on healthcare (see Figure 1). This is lower than in many other EU-15 and G7 countries – such as Denmark, France, Germany, the Netherlands, Norway and Sweden, which all spend over 10% of their GDP on health – but not entirely out of line with these countries. But the percentage spent on health in the UK is predicted to fall over the course of the next four years, according to the Office for Budget Responsibility (2016), as expenditure flat-lines and GDP is predicted to grow, assuming no change in government.

UK healthcare expenditure is dominated by the NHS, which accounts for just over 80% of total healthcare expenditure, with the remainder coming from private healthcare expenditure (including private healthcare insurance). The NHS itself accounts for approximately 19% of
total public expenditure (about 30% of public service expenditure – essential welfare protection, health and education).

The amount spent per capita on NHS healthcare was £2,009 per head across the UK in 2014/15; varying from £1,992 per head in England, to £1,998 per head in Wales, £2,150 per head in Scotland and £2,115 per head in Northern Ireland. NHS expenditure on private sector services has grown, but is levelling off; in England, just over 10% of the total NHS budget in 2015/16 (about £9 billion) was spent on independent sector providers.

**Figure 1: International comparison of percentages of national income spent on healthcare**

![Figure 1: International comparison of percentages of national income spent on healthcare](image)

*Source: OECD Health Statistics, 2016.*

Figure 2 shows the trend for real (inflation adjusted) NHS expenditure to date, plus Treasury projections of NHS expenditure to 2019/20. Figure 2 also plots (right-hand axis) the percentage of GDP spent on the NHS. Under the Blair government, from 1997 to 2007, there was a substantial rise in NHS expenditure, almost a doubling. This also accounts for the large increase in the proportion of GDP spent on the NHS. But between 2009/10 and 2015/16, NHS expenditure levelled off and the percentage of GDP spent on the NHS is forecast to fall, essentially as the economy is projected to grow faster than health spending, to 6.9% in 2019/20 (Office for Budget Responsibility, 2016).

Indeed, as Figure 3 shows, under the coalition government between 2010 and 2015, the average percentage growth in NHS expenditure was at an all-time low. The average annual increase in NHS expenditure was approximately 1%, well below the historical trend of 4% expenditure growth in the NHS per annum (although note that this overall average is partly reflecting the high growth in NHS expenditure initiated by the Blair government).

While the first year of the current Conservative government returned NHS expenditure growth to approximately 3%, a level of approximately £139 billion (see Figure 3), this has to be seen in the context of growing pressures on NHS demands. The low rate of NHS expenditure growth between 2010 and 2015 reflected a general governmental desire to reduce public sector debt essentially through a reduction in public expenditure. NHS expenditure was to be ring-fenced
to maintain real levels of expenditure; there were to be no real cuts in NHS expenditure. But to maintain this level of NHS expenditure, substantial productivity (or efficiency) savings were to be made.

**Figure 2: NHS expenditure**

![Figure 2: NHS expenditure](chart.png)

**Notes:** The Figure 1 data comes from the OECD, (which allows international comparisons to be made) and with the NHS spend as a percentage of GDP given as 7.9% and UK private health care spend given as 2%, with data relating to 2014. The data for Figure 2 comes from the UK Treasury PESA up-dated data (released 2016) which estimates NHS spend as 7.3% of GDP for 2014/15. 

**Source:** Various PESA estimates.

**Figure 3: Percentage change in NHS expenditure by government**

![Figure 3: Percentage change in NHS expenditure by government](chart2.png)

**Source:** House of Commons Library.
A Five Year Forward View (NHS England, 2014) of the NHS published in 2014 forecast that the NHS would have a funding gap of £30 billion by 2020/21 if current demand and cost pressures continued, if the NHS received no real increases in expenditure and no further productivity gains were achieved.

The Forward View considered three scenarios to address this funding gap with different productivity gains. In the first, the £30 billion funding gap was reduced to £21 billion on the back of 0.8% productivity growth per annum up to 2020/21. In the second scenario, the funding gap was reduced to £16 billion on the basis of productivity gains of 1.5% per year. In the third, productivity gains of 2-3% per year would allow the funding gap to close if matched with staged real increases in funding of £8 billion.

The government responded to this Five Year View with financial plans for the NHS that would see funding rise by £10 billion by 2020. Coupled with productivity savings of £22 billion by 2020/21 (based on 2-3% annual productivity savings in the NHS), this was predicted to cover the £30 billion funding shortfall.

In fact, the House of Commons Health Committee’s analysis, ‘Impact of the Spending Review on health and social care’, challenges the increased sum of £10 billion additional NHS funding (House of Commons Health Committee, 2016). They point out that the £10 billion actually included approximately £2 billion already allocated and the actual increase to match the Five Year Review was £8.4 billion. The figure of £8.4 billion announced in 2015 was expressed in 2020/21 prices and if estimated in 2015 prices (that is, those in force at the time of the announcement) the extra government spending would in fact be £7.6 billion.

This is important as a large proportion of the funding increase occurs in the earlier years, with £3.8 billion in 2016/17, an additional £1.5 billion in 2017/18, £0.5 billion in 2018/19, £0.9 billion in 2019/20 and £1.7 billion in 2020/21. Moreover, part of the £8.4 billion would be funded by transfers from local authority public health and health education grants, amounting to £3.5 billion, and it is therefore not new public money. The overall impact, the Committee argues, is to reduce the new additional NHS funding to £6 billion in 2015 prices.

Furthermore, some of this funding was drawn from the 2014/15 budget, so if restricted to the five-year spending review period of 2015/16 to 2020/21 and expressed in 2015 prices, the net increase to the NHS would be £4.5 billion, a figure far from the announced £10 billion. Noting that a per annum productivity increase of 2% would also have to be attained to meet the estimated shortfall of £30 billion by 2020/21, the Committee argues that this does not meet the necessary commitment to fund the NHS to match demand and cost pressures by 2020/21.

Some in the NHS consider the annual productivity savings of 2%, which is also necessary to close the funding gap, to be a ‘stretch’. The regulator, NHS Improvement estimates these productivity savings have to total £22 billion to bridge the funding gap, even if the increased funding of £8.4 billion is taken at face value. Obviously, more is required if actual funding received by the NHS lies below £8.4 billion.

While 2% annual productivity savings had been achieved for a year in 2012/13, this was based on cost cuts, rather than increased output in the NHS. Indeed, over the period 2010/11 to 2014/15, payments to hospital trusts for referrals by GP purchasers (and CCGs) have been reduced by over 6% in real terms, while staff pay increases, reflecting the impact of the coalition government’s general public sector freeze, averaged only 1% over the same period.
Together with reductions in the number of total NHS staff, these historically low pay increases led to a reduction in the overall NHS wage bill, the largest component of NHS expenditure, for 2010/11 to 2012/13 of £1.5 billion. So any further productivity savings, necessary to address the funding gap, must be made over and above these existing cuts.

Maintaining productivity savings of 2-3% is therefore a big ask. NHS Improvement estimate the hospital sector itself will have to realise productivity gains of approximately 4% each year from 2016/17 through 2018/19 to achieve these overall levels. Historically, average productivity rates have been around 1% per year since the founding of the NHS. Between 1995 and 2010, NHS productivity growth averaged 0.4% per year.

To aid the productivity increases by improving the flow of patients through hospitals, a Better Care Fund was established. The Fund was meant to address directly the issue of bed-blocking. The National Audit Office (2016) estimates that 2.7 million bed days a year are incurred as a direct consequence of delayed discharges. To address this, the fund increased support to local authorities for adult social care by £3.5 billion. But not all of this was new money, as £2 billion was a transfer from the NHS budget.

Local authorities are now also able to increase council tax by 2%, which could raise nationally an additional £2 billion a year, to support social care funding. While this funding to local authorities is meant to aid hospital discharges and the quality of healthcare in the community, it comes at a time when total funding to local authorities has fallen.

The National Audit Office (2016) estimates a fall in local authority funding of 37% in real terms over the period 2010/11 and 2015/16. Indeed, they note the proportion of elderly individuals receiving local authority social care services fell by approximately 40% between 2005/06 and 2013/14. It therefore remains unclear how effective the Better Care Fund has been in addressing delayed hospital discharges.

**Impact on NHS staffing and service**

Given that around 70% of NHS expenditure goes on staffing, it is no surprise that as expenditure tightens, staffing issues are a growing problem. While the number of NHS consultants rose by over 25% between 2009/10 and 2015/16, 7.5% of clinical posts remain vacant across England; and in parts of London, this vacancy rate rises to 15%. Indeed, vacancy rates for doctors have risen 60% (from 2,907 to 4,669) over the two-year period 2013 to 2015 (Office for National Statistics, 2016). The number of GPs in the NHS declined in 2014/15, after a 20% growth in their number between 2004 and 2014, although NHS England recently announced an aim to increase GP numbers by 1,000 (HCSIC, various years; NHS England, 2016).

For the largest staff group, nurses, there are increasing shortages. Vacancy rates are estimated to be 17%, having increased by 50% over the period from 2013 to 2015 (Metcalf, 2016; Office for National Statistics, 2016). This partly reflects declining numbers being trained (a decline of 20% between 2009/10 and 2012/13) and increasing numbers leaving the profession (estimated to be 24,000 in 2012/13 and a further 17,800 in 2013/14). Some return to nursing, but even this number is falling: between 1999 and 2004, 18,500 individuals completed return to practice courses, while between 2010 and 2014, this fell to 4,800 individuals.
As a response to this shortage, there has been an increasing draw on nurses from abroad. In 2015/16, an estimated one in three newly registered nurses came from outside the UK (Health Foundation, 2016). In addition, agency nurse costs have increased, standing at £3.7 billion in 2015/16, although NHS policy remains one of less reliance on agency staff. While retention is a growing concern, a related issue is pay with median pay for NHS nursing staff currently at around £31,500, which is £7,500 below the median pay in other graduate occupations.

All NHS pay remains subject to the 1% pay increase restrictions placed on the public sector workforce until 2019/20, while it is estimated that pay rates for the rest of the economy will increase by 2.5% to 3.6% annually up to 2020/21 (Office for Budget Responsibility, 2016). This will not aid recruitment and retention of NHS staff.

Brexit will not help this staffing situation. Currently, approximately 50,000 citizens from the European Economic Area are employed in the NHS. While this represents under 5% of total NHS employment, it includes over 9,000 doctors, 18,000 nurses and 2,500 professions allied to medicine (clinical scientists, physiotherapists, etc.). It remains unclear what impact Brexit will have on NHS employees already in employment or those future healthcare professionals seeking employment in the NHS. Nor is it clear what will be the impact of the current government’s rescinding of bursaries for those undertaking nursing degrees. While it is difficult to quantify, neither Brexit nor the ending of nursing bursaries are likely to alleviate NHS staffing shortages.

Not surprisingly, as a consequence of the expenditure and staffing constraints, performance appears to be deteriorating. The percentage of patients seen within the four-hour A&E waiting time target fell from 95.9% in 2012/13 to 81% in the first quarter of 2017 (King’s Fund, 2017). The A&E standard of 95% of patients spending less than four hours waiting was last achieved in July 2015. The target for GP referral through to hospital for cancer therapy was breached, as was the wait for diagnostic testing, although in both cases only marginally (NHS England, 2017).

Moreover, consultant productivity appears to be falling. Between 2010/11 and 2015/16, NHS hospital consultant productivity, measured as numbers of consultants relative to in-patient and out-patient activity, fell by almost 2.5%, as output is rising faster than the increase in the number of consultants.

In pursuit of overall NHS productivity gains, the government has called for a 24/7 NHS, with full facilities open seven days a week. The government cannot force GPs to open longer, given current contracts, or even change current working hours for medical doctors without changing their contracts (which led to a protracted labour dispute with NHS junior doctors), but it remains a major policy initiative.

The government’s main argument to support this extension in working hours is primarily that in-hospital mortality is higher at the weekend than during the week. But if adjustment is made for the higher weekend admission rate, there is doubt that the weekend mortality rate is in fact any higher (Meacock et al, 2015). If this initiative is pursued, it is estimated a further £1.04 to £1.43 billion funding will be required to extend NHS services.

One specific aspect of NHS provision, mental healthcare delivery, has changed dramatically recently. Between 2010/11 and 2015/16, mental health beds have been cut by 20% and there has been a reduction in mental health staffing over the period of 6,600 nurses and 400 clinicians.
In addition, 57% of CCGs claim that they plan to spend less on mental health in 2016/17 than in 2015/16.

This reduction in capacity comes at a time when mental health service demand is rising with an increased 1,400 people per day being treated compared with 2010. The current government has recently announced an intention to fund 10,000 new posts in this area and initiated a Green Paper to consider more effective delivery of mental health services to children and young adults.

What are the main parties promising?

**The Conservatives**

The Health and Social Care Act 2012 continues to shape the Conservatives’ health policy. This embeds competition among any willing provider, including private providers as well as NHS providers of healthcare, to contract with the NHS to supply hospital care.

Existing expenditure plans are reiterated. There is a recognition that further efficiencies will be required to meet expenditure shortfalls, with the already promised, but contested, figure of £8 billion additional expenditure on the NHS over the next five years being retained by a next Conservative government.

There is also a promise to invest in NHS capital structures, but it is unclear how this commitment will be funded (particularly given the recent raids on NHS capital funds to meet NHS revenue shortfalls). While unclear on detail, the Conservative manifesto also promises a Green Paper on Mental Health, with a view to introducing a new Mental Health Bill to the next parliament, in response to widely accepted failings in the provision of mental health services. An additional £1 billion investment is promised in this area by 2020/21.

On staffing and delivery, there is a pledge to increase the numbers of medical students by 1,500 a year with the ambitious aim that this will train the numbers of doctors the NHS requires. It is also stated that there will be contractual reforms to GP and consultant contracts. There is little detail of how these reforms will be managed, except to state that GP services will be widened and extended to cover routine weekend and evening coverage by GPs to the whole population of England by 2019. There is no detail on the proposed contractual revisions.

Related to these staffing measures, there is a reiteration of certain performance targets (for example, 95% of patients seen within four hours in A&E; maximum 18-week waits for elective care), coupled with a new target to deliver a definitive cancer diagnosis within a 28-day period. Extending the internal market split between purchasers and providers to cover the integration of health and social care is promised for 2018, but again this has little detailed explanation as a promised review of integrated care will follow.

The Conservatives’ manifesto does discuss delivery of social care for the elderly, (whether at their own home or in a residential or nursing care home), based on means-tested access to such services. Initially, it was announced that individuals would contribute through a combination of their income and assets, including their house (recoverable on death of the individual or their spouse). Under these arrangements, all financial and housing assets minus £100,000 would be considered in the means test regardless of whether service users are in the community or live in an institution. Moreover, the proposed £100,000 retention limit would not take account of markedly differential social care costs and asset levels across the country. In contrast, the current means test disregards the initial £23,500 worth of assets, and only takes account of the
housing assets of individuals if they receive residential or nursing home care, disregarding the costs of care received in their own homes.

Perhaps due to the dramatic change in individual asset contributions towards social care costs, perhaps as the change would have hit a number of home-owning potential Conservative voters hardest or perhaps because of a realisation that differential treatment across disease areas will incur large differences in personal contributions, (with the chronically ill, for example, those with dementia, being hit hardest by the change) the Conservatives announced, after releasing their manifesto, a full review of the social care proposal after the election. This review would consider a cap on the upper limit that an individual would be charged for any social care consumed over their lifetime.

Further promises are made in the manifesto to charge immigrants, including migrant students, for their NHS care, using existing regulations but at a slightly increased rate. The recommendations of the Accelerated Access Review, designed to improve access to medicines and new medical technologies generally are based partly on a similar process recommended by the European Medicines Agency.

In summary, there is little more promised expenditure other than the contested additional £8 billion, plus an additional £1 billion directed to mental health services, an acceptance and extension of existing performance standards and slight increase in staff numbers as well as a review of staff contracts. Without greater detail, promised through a number of reviews, it is unclear how viable such a strategy is given the existing funding and staffing problems faced by the NHS. For social care, generally it is clear that an increased personal contribution will be sought.

**Labour**

Labour’s health policy is based on repealing the Health and Social Care Act (2012) and releasing £30 billion in extra funding over the course of the next parliament. This is the amount outlined as the NHS shortfall by NHS England in 2014, net of any productivity gains. There is a promise to increase funding of GP service provision, but no detail on levels. There is also particular concern for the improvement of mental health services.

In terms of service delivery, although short on detail, Labour would make the NHS the preferred provider of healthcare, implying that the purchaser-provider split would be retained. There is also a promise to guarantee existing performance targets: for example, extension of 95% of all patients seen within four hours in A&E to all patients being seen within that period; access to elective treatment within 18 weeks.

In terms of specific proposals, a Cancer Strategy for England is promised to deliver a full upgrade of NHS England cancer services. This upgrade is estimated, when the plan was published, to cost additional NHS funding of £400 million per year. A new Children’s Health Fund, costing £250 million, would target inequalities in children’s health. This would be accompanied by a specific ‘health’ tax levied on the soft drinks industry to aid healthier lifestyles.

To oversee these changes, Labour would introduce an independent regulator, the Office for Budget Responsibility for Health, to scrutinise spending objectives and levels, as well as a regulator to monitor quality, safety and excellence. In essence, these new regulators would probably replace existing institutions.
Mental health service delivery is also singled out by Labour. The aim is to increase the priority given to mental health services by ring-fencing mental health budgets and providing increased mental health services to children and adolescents. Noting that 50% of adults with mental health issues present these problems by the age of 14, Labour promises provision of school counselling services in secondary schools. No detail is provided on funding and little on service provision other than a statement of objectives.

In terms of staffing, Labour would abolish the public sector 1% per annum pay cap and re-introduce bursaries for nursing degrees (on top of the abolition of degree tuition fees). It would also pursue guarantees, in terms of rights to work, for the 50,000 EU citizens who work in the NHS.

With social care, Labour promises fuller integration of health and social care provision. Labour also pledges a further £8 billion to local authorities to fund social care delivery, although again there is little detail on exact spending plans or delivery of service. Given that local authorities retain control over their spending plans and how they allocate their aggregate budgets, within which this additional money would accrue, this lack of detail is important.

**The Liberal Democrats**

The Liberal Democrats’ headline policy is that they would introduce an immediate 1p rise in basic, higher and additional rates of income tax to raise an additional £6 billion, over the course of the parliament, to aid funding NHS and social care services. Given the existing NHS expenditure levels they would presumably have to pursue the current efficiency savings to make up any expenditure gaps, although it is not clear what would be the overall NHS and social care spending levels to be pursued.

NHS and social care spending would be monitored by an independent Office for Budget Responsibility. In the longer term, the Liberal Democrats propose pursuing a form of hypothecation tax dedicated to the funding of the NHS and social care. They also wish to integrate health and social care into a single provider organisation by 2020. The additional £6 billion funding would be prioritised towards the areas of mental health, social care, GP practice and public health.

In terms of staffing, the Liberal Democrats have similar policies to Labour: abolishing the public sector 1% per annum pay cap; re-introducing bursaries for nursing degrees; and guaranteeing the rights to work of the EU citizens who work in the NHS.

**Conclusions**

The NHS is a prominent area of debate in this election. There is a recognition that the NHS requires increased funding to meet the growing demands of an ageing population. The current government’s plans are to expand funding but to raise more real resource input essentially through efficiency savings.

There is general agreement that there is a funding shortfall with additional money required to meet demographic pressures (approximately 1.5% uplift per year), increased expectations and changes in health technology and medical practice (approximately 2-3% uplift per year) and increased prices (approximately 2% per year; although sought to be contained to approximately 1% per year through the public sector pay restraint by the current government). The efficiency
savings required to maintain NHS resources in line with rising demands and costs would have to be three to four times historical norms for these plans to work.

Even then, under the Conservatives’ plans, a funding shortfall, and consequently increasing staff shortages, is likely given the difficulties associated with maintaining productivity gains. In the area of social care, their proposals are to shift the balance of costs towards the individual.

Labour promises to meet the shortfall in funding of £30 billion forecast by NHS England, but gives little detail on how this will affect service delivery. Labour also promises additional funding, of £8 billion, for social care, but again there is scant detail of how this money will be allocated.

The Liberal Democrats plan to allocate £6 billion towards addressing the funding gap, but give little detail on how any future shortfall will be made good, emphasising instead their proposal to move to a hypothecated tax to raise funds for health and social care.

The various planned uplifts in expenditure, whether or not coupled with further efficiency savings, may or may not address all the needs of the NHS and need to be maintained against a background of hospital deficits, labour force shortages and failing performance. Coupled with the looming crisis affecting social care, this renders the health and social care area of social policy ‘complex’ (to borrow the US president’s recent description of health policy).

Health (and social care) policy remains a major challenge regardless of which party is elected and much greater attention to detail will be required on the implications for service provision than is contained in any of the manifestos. Even if the funding gap is met, the growing crisis in staffing in the NHS, which accounts for 70% of total NHS expenditure, is recognised by all parties but remains to be fully addressed.

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3. Education and Skills: The UK Policy Agenda

Sandra McNally and Gill Wyness
CEP ELECTION ANALYSIS

Education and Skills: The UK Policy Agenda

- The UK’s overall school budget has been protected in real terms but does not provide for funding per pupil to increase in line with inflation. Because pupil numbers are increasing, large falls in expenditure per pupil are expected over the next few years unless more funding is allocated. The situation facing post-16 education is a lot worse.

- A more widespread adoption of grammar schools is very likely to increase socio-economic segregation by school type and is unlikely to lead to any increase in average educational attainment in the country.

- Although increasing intermediate skills among young people and adults is needed, many concerns have been raised about the how apprenticeship policy is being implemented. This includes an emphasis on quantity over quality and differences in the provision of training opportunities for large employers compared with small and medium-sized enterprises.

- Despite an increase in the number of apprentices, there has been a fall in the overall number of post-16 and adult learners receiving publicly funded provision outside schools and universities.

- Despite the near trebling of tuition fees in 2012, higher education participation continues to grow. Moreover, participation among disadvantaged groups has risen at a faster rate than those from more advantaged backgrounds in recent years, with this trend continuing in 2016.

- But the steep decline in enrolments from part-time students – which began in 2012 when the government raised the cap on part-time fees to £6,750 a year – continues unabated. The number of part-time students has fallen by 53% since 2011.

- Brexit represents a further threat to the sector. The number of students from the European Union is likely to fall as their fees rise and their access to loans is taken away. On the other hand, UK degrees have become cheaper as a result of the falling pound, which may potentially offset some of the decline.
Education expenditure

The UK’s overall school budget has been protected in real terms but it does not provide for funding per pupil to increase in line with inflation (NAO, 2016a). As the number of pupils has been projected to increase in the next few years (by 3.9% and 10.3% in primary and secondary schools, respectively), funding per pupil is projected to fall.

The Conservatives’ manifesto promises an additional £4 billion for the schools budget to 2022. This is estimated to translate into a fall in per pupil expenditure of 2.8% between 2017/18 and 2021/22 (Belfield and Sibieta, 2017). The same authors estimate that the implication of the Labour manifesto is that per pupil spending would be around 6% higher by 2021/22, while it would remain about the same as it is today under the Liberal Democrats’ plans.

The outlook for young people aged between 16 and 18 is much worse. Belfield et al (2017) project that funding is likely to fall by around 13%. The Labour manifesto says that it would bring funding for 16-18 year olds into line with key stage 4 baselines and restore the education maintenance allowance for 16-18 year olds. The Conservative and Liberal Democrat manifestos do not make specific commitments on funding for this age group.

Changes to education expenditure matter because there is good evidence that they have a causal influence on pupil performance (Gibbons and McNally, 2013). Education and skills have an important role in generating improved productivity and growth (LSE Growth Commission, 2017). Given that this is acknowledged in the government’s own industrial strategy (HM Government, 2017), it makes no sense actually to reduce investment in a ‘key pillar’ of that strategy.

Teacher shortages

Teachers are the key input to education. But teacher shortages are a big problem. For example, the National Audit Office (NAO, 2016b) finds that over a ten-year period, 12% of newly qualified teachers left state schools within one year of joining while 28% left within five years. There are also indications that this problem has become worse over time, rising from 5.5% to 8.3% since 1996 (see Figure 1). Teacher turnover has a negative relationship with pupil performance and more vulnerable young people are the worst affected by it (Gibbons et al, 2017).
Figure 1: Exit rates of secondary school teachers aged 20-29 between 1996 and 2014

Grammar schools

If the Conservatives are re-elected, their manifesto says that the ban on the establishment of selective schools will be lifted. In other words, they would allow new grammar schools, which have the distinguishing feature of selecting children according to their performance in a test at age 11.

This change is purported to make the education system more meritocratic, but it goes against a substantial body of research showing that academic achievement is strongly related to family income – as illustrated, for example, in analysis by the Department for Education (DfE, 2017a). Thus, it should come as no surprise that those from disadvantaged backgrounds rarely get into grammar schools: the same DfE report shows that under one in ten pupils in selective schools are from disadvantaged backgrounds and more than half are from the most affluent groups.

There will be conditions attached to this reform, allowing children to enter grammar schools at age groups other than 11. While there is research suggesting that flexibility in this respect matters (for example, Dustmann et al, 2017, for Germany), it does not overcome the basic concern: that socio-economic background is strongly related to academic achievement at any age.

The reasons why academic achievement is so strongly related to family income are linked to earlier childhood investments (for example, in health, education, housing, etc.), which affect
how children perform academically. Parents with a higher family income are also in a position to pay for tutoring if their child is to sit a high stakes exam at age 11.

A more widespread adoption of grammar schools will therefore lead to a school system that is more segregated along the lines of socio-economic background. Given that only about 35-40% of a typical cohort go to university, one would worry that if a selective system is adopted widely enough, many more children will go to schools where no one applies to university. This could have very negative effects on aspirations and social mobility.

A number of studies consider the effect of whole countries changing from a selective system to a comprehensive system: Aakvik et al (2010) for Norway; Meghir and Palme (2005) for Sweden; and Pekkala et al (2013), for Finland. All these studies use data on cohorts born before and after the reforms and make use of the fact that they were introduced at different times across different regions. They all find beneficial effects from the move to a comprehensive system on average educational attainment and that effects were stronger for lower socio-economic groups. This suggests that going back to a more selective system (in England) would not improve educational outcomes.

**Improving the skills base**

It is well known and acknowledged in the government’s industrial strategy that the UK has a skills problem: ‘We have a shortage of technical-level skills and rank 16th out of 20 countries for the proportion of people with technical qualifications’. As the Green Paper also says, ‘a bewildering complex array of qualifications, some of which are poor quality, makes the system hard to use for students and employers.’

This shortage of ‘technical level skills’ is important because it has an impact on economic growth, inequality and social mobility. It also affects a lot of people. Well over half of young people do not do A-levels each year. Furthermore, only about 35-40% of a typical cohort finishing their GCSEs can expect to go to university. The Sainsbury report and post-16 plan set out a coherent framework for technical education after the age of 16 (DfE, 2016). If properly implemented, it would be a vast improvement on the current system, which is overly complex and fails to help many young people to progress, particularly if they do not do well in their GCSEs (Hupkau et al, 2016).

The other major reform in this area has been around apprenticeships. After the 2015 election, the Conservative government committed to three million apprenticeship starts in England in the five years from 2015 to 2020. An ‘apprenticeship levy’ has just been implemented, which is a 0.5% tax on employers’ wage bills over £3 million per year. This affects about 2% of employers. In exchange for this tax, they get credits that they can use to cover the direct costs of training their own apprentices. But the other 98% of employers need to rely on what the government allocates to a separate budget, which goes directly to training providers. There are concerns that providers will not be able to meet the needs of small and medium-sized enterprises because of very severe cuts to non-levy funding allocations.

There is no obvious rationale for generously supporting large employers to provide skills but not smaller employers. Indeed, one might expect more ‘deadweight’ to come from subsidising training for the former because they are more likely to have both the capacity and incentive to fund more of their own training.
There are continuing concerns about the quality of apprenticeships (Ofsted, 2015). An apprenticeship certainly means something very different in England than it does in other countries. For example, in most countries, apprenticeships are targeted at young people whereas in England, the main growth in new apprentices has been for those older than 25, currently accounting for well over half of new apprentices (see Hupkau and Ventura 2017). Also, in other countries, the minimum legal duration is at least two years whereas in England, it is only 12 months (Unwin, 2017).

There are concerns over new apprenticeship standards. According to the NAO (2016c), ‘some employers and industry representative groups are concerned that the approach is leading to a large number of narrow and overlapping standards which restrict the extent to which apprentices gain transferable skills.’ It is also of concern that there is no longer a requirement for all apprenticeships to lead to the attainment of specified vocational qualifications, as this will weaken the extent to which people can signal their learning to other employers.

An even broader issue is why apprenticeships need to be the focal point of skills policy in the first place. This is a suitable model for training a person new to a job but not for enabling a person to become better at his/her existing job or for short-term training. The LSE Growth Commission has recommended that there should be a generalised tax break for ‘skills investment’ in the same way as there is in plant and machinery. This would broaden policy to consider skills beyond apprenticeships.

It is hard to get figures on expenditure for adult education. But we can get numbers on the total number of learners receiving public funding in the Individual Learner Record (which covers educational provision outside schools and universities). This covers those from age 16 onwards who attend general further education and tertiary colleges, sixth form colleges, private training providers and other publicly funded providers. The evolution of this educational provision is discussed in Hupkau and Ventura (2017).

Figure 2 shows a dramatic fall in the number of publicly funded learners over the last few years and is driven by a fall in post-19 learners (DfE, 2017b). This is the net effect of increasing apprenticeships and reductions in other forms of provision. It is not clear what has driven this, although the change in how further education is funded (with more costs being passed to students through the loans system) is certainly a strong contender. Unless the fall in the number of learners has been compensated for by an increase in the quality of learning provision, it would appear that public investment in post-16 and adult provision has fallen sharply over the last few years.
**Figure 2**: Total number of post-16 and adult learners receiving public funding in education institutions outside schools and universities

![Graph showing the total number of post-16 and adult learners receiving public funding](image)

*Source*: derived from the Individual Learner Record (Hupkau and Ventura, 2017).

**Higher education: the growth in participation since 2012**

The tuition fee cap increased from £3,375 to £9,000 per year in 2012, with the majority of universities deciding to charge the full £9,000, and the average fee standing at £8,891 in 2016/17 (OFFA, 2015).

Students can apply for an income-contingent loan to cover the whole fee, as well as generous maintenance loans, and until recently poor students were also eligible for maintenance grants. The generosity of the system may have protected participation from disadvantaged students: Figure 3 shows that while participation among all groups has risen since 2012, it has been fastest among those from poorer backgrounds.
Maintenance grants for poor students were abolished in 2016 and replaced by bigger loans. It is not yet clear how these changes might affect enrolment from poor students, but research (Dearden et al, 2014) implies that the abolition of grants may have a negative effect.

Further price increases are also planned. The fee cap has already been raised to £9,250 for students beginning their courses in 2017/18. Future increases will be linked to evidence of high quality teaching, which will be decided by a new mechanism called the ‘teaching excellence framework’ (TEF), in which universities are judged on their teaching quality using metrics that include student satisfaction and degree completion. It is not clear how these increases may affect demand.

Part-time students

While the continued upward trend in enrolments is cause for optimism, the steep decline in part-time students, which began in 2012, has continued unabated. As Figure 4 shows, the number of part-time undergraduate students has fallen from 278,530 in 2011 to 148,570 in 2015, a fall of 53%.
The fall in part-time students came as the government raised the cap on part-time fees as part of the 2012 overhaul. The government hoped to protect part-time enrolments by extending tuition fee loans to this group, but strict requirements (that the student must not already have a degree, and that the ‘course intensity’ must be 25% or more) mean that many are not eligible for this support (HEPI, 2015). The government has since announced that from 2018 it would offer maintenance loans to part-time learners, but again with strict requirements.

Brexit and higher education

Brexit also represents a threat to student numbers, though opinions vary on the potential impact on the sector. It is probable that numbers of students from the European Union (EU) will decline, since they are likely to face fee increases (as they lose their right to be charged cheaper ‘home’ fee rates) and will lose the right to access fee loans.

The damage to the UK’s reputation as a place that welcomes foreign students could also result in further declines in student numbers from both the EU and elsewhere in the world. Speculation that the prime minister might agree to remove foreign students from immigration targets were quashed despite pressure from university vice-chancellors and MPs.

But the damage may not be as bad as some fear. EU students make up just 5.5% of the student population in the UK (Universities UK, 2016) and demand for higher education in the UK is still very high. Universities could potentially offset any decline in overseas demand with that from UK students (whose numbers are no longer constrained by numbers caps) and non-EU overseas students. Moreover, the fall in the value of the pound has made UK courses cheaper, which again may counteract falling demand.

In addition to the impact on student demand is the effect that Brexit may have on staff in higher education institutions. The post-Brexit rights of EU citizens, including university employees, are still unclear. Around 33,000 non-British EU academics are currently employed at UK
universities (HESA, 2017b), and there are fears that these academics may start to look elsewhere, potentially threatening university quality. Moreover, this uncertainty could result in a fall in job applications to UK universities from EU academics, reducing the pool of applicants and again having adverse effects on quality.

The election context for higher education

The Conservatives are likely to continue their aims to ‘marketise’ the higher education sector. Their Higher Education and Research Act (2017) aims to increase competition in the sector through relaxing legislation on new entrants. It will also reform how the system is monitored, introducing a new watchdog called the Office for Students.

New institutes of technology will also be established, which will provide courses at degree level and will be linked to leading universities. This will increase student choice, but may also raise problems: the key to a marketised system is that consumers can make informed choices, but students already struggle to understand the differences in returns between providers (McGuigan et al, 2016). Introducing new ones may compound this problem.

Further fee increases are also on the cards. Universities participating in the TEF (and meeting minimum requirements) will be allowed to increase tuition fees annually with inflation until 2020, but beyond this, the plan is for caps to be allowed to vary according to how universities perform in the TEF.

Problems have already emerged here: the National Student Survey is a key element of the TEF, so performing well in this indicator of student satisfaction will help universities to increase their fees. In response, students at several universities are organising boycotts of the survey. Universities will also be required to become involved in academy sponsorship or the founding of free schools if they want to charge full tuition fees.

In contrast, Labour leader Jeremy Corbyn recently announced plans to abolish tuition fees entirely. This move would be regressive, given that middle class students are disproportionately represented in higher education. It would also be highly expensive for the taxpayer (estimated at £11 billion per year, including the costs of restoring maintenance grants, by Labour itself). Both Labour and the Liberal Democrats would also reinstate the recently abolished student maintenance grant.

The election context for primary, secondary and vocational education

The Labour and Liberal Democrat manifestos emphasise early years and school readiness. These issues are not raised specifically in the Conservative manifesto, which puts more emphasis on school structures (specifically, who can create new schools and school admissions).

Both Labour and the Liberal Democrats rule out allowing new grammar schools. This is in stark contrast to the Conservative manifesto, which commits to lifting the ban on selective schools and also reviewing the school admissions policy in general. Labour requires a ‘joined-up’ admissions policy across local schools. Both Labour and the Conservatives are unclear about precisely what they have in mind about implied reforms to school admissions.
The Conservatives, Labour and the Liberal Democrats all have something to say about school expenditure and addressing teacher recruitment and retention. All parties promise a change in total expenditure that is actually far more modest when put in the context of rising pupil numbers. Based on the manifestos, Labour would allocate more funding to schools than the Conservatives, with the Liberal Democrats somewhere in between. Labour and the Liberal Democrats both commit to ending the cap on pay rises for teachers, while the Conservatives offer ‘forgiveness on student loan repayments’ for teachers.

The Conservatives and Labour have much to say about post-16 technical education, whereas the Liberal Democrat manifesto has nothing to say about this issue (although the section on lifelong learning covers some of the same ground).

The Conservative manifesto mainly reiterates policies that are already in the public domain. But it misleadingly suggests that new apprenticeships are for the 200,000 young people who choose to enter full-time vocational study after their GCSEs each year. In fact, only a minority of these young people will obtain apprenticeships and the vast majority of new apprenticeships in recent years have been for adults.

The Conservatives and Labour seem to agree on the broad direction of reforms to technical education, although there are some important differences. The implication of the Labour manifesto is that more money would be spent on post-16 technical education and adult education – for example, the increase in funding for 16-18 year olds and the commitment to make further education courses free for the learner. Labour also commits to protecting apprenticeship funding for small and medium-sized employers who do not pay the levy.

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Further reading


4. Brexit and the UK Economy

Swati Dhingra and Thomas Sampson
CEP ELECTION ANALYSIS

Brexit and the UK Economy

- The June 2016 referendum gave a mandate for the UK to leave the European Union (EU), but offered no guidance on what form Brexit should take.

- CEP research finds that remaining in the Single Market would minimise the economic costs of Brexit. Leaving the EU without any new deal in place would be the most costly alternative.

- There is not yet any clear evidence that Brexit has affected UK GDP, but this does not mean Brexit has had no effect on the economy. The Brexit vote has already made the UK poorer by reducing the value of the pound.

- Between the referendum and the end of April 2017, sterling depreciated by 13% against the US dollar and 9% against the euro. The depreciation is a signal that expectations about the UK’s future economic performance have deteriorated.

- The depreciation of sterling has hurt UK consumers by increasing the price of imports, leading to higher inflation and lower real wage growth. CPI inflation has risen from 0.5% in June 2016 to 2.7% in April 2017. Real wage growth has declined from 1.3% in June 2016 to negative 0.5% in March 2017. To date, there is no evidence that the depreciation has boosted UK exports or reduced the trade deficit.

- The Conservatives have pledged to take the UK out of both the Single Market and the customs union, while simultaneously negotiating a new partnership with the EU. Leaving the Single Market would mean the UK experiencing higher trade barriers, lower trade and reduced living standards. The Conservatives would try to mitigate these costs by seeking a new deal with as few barriers to trade and investment as possible.

- The Conservatives have not ruled out a ‘no-deal’ Brexit, leaving the EU without any new agreement in place. While it is a tautology that a sufficiently bad deal must be worse than no-deal, in practice the no-deal outcome, where the UK and EU trade under WTO terms, is the worst-case scenario for the UK economy. The economic costs of Brexit would be twice as large in the no-deal case than if the UK remains in the Single Market.

- Labour’s plan for Brexit is far from clear, but in many ways it resembles the Conservatives’ position. The only unambiguous difference is that Labour acknowledges that no-deal is the worst possible option for the UK. The Liberal Democrats propose that once a new deal has been negotiated, the UK should hold a second referendum to choose between the new deal or remaining in the EU.
Introduction

This general election is pitched as the ‘Brexit Election’, one that will give the incoming government a mandate to negotiate the terms of the UK’s exit from the European Union (EU). The Conservatives and Labour have both made it clear they will respect the referendum result and take the UK out of the EU. But there are many ways to leave and the referendum did not allow voters to choose between them – Brexit does not simply mean Brexit. What matters, of course, is the content of the withdrawal agreement and of any new trade deal between the UK and the EU.

The election context

Brexit is the most important issue of the election campaign – indeed, it is the reason the election is taking place. The Conservatives have pledged to take the UK out of both the Single Market and the customs union, while simultaneously negotiating a new partnership with the EU. Leaving the Single Market would mean the UK experienced higher trade barriers, lower trade and reduced living standards (Dhingra et al, 2016), but the Conservatives would try to mitigate these costs by making sure there are as few barriers to trade and investment as possible.

Presumably this means that they would seek an ambitious free trade agreement with the EU, but it is uncertain what such an agreement would contain and the Conservative manifesto leaves open the possibility that the UK could leave the EU without any new agreement in place.

It is a tautology that a sufficiently bad deal must be worse than no deal, but in practice the no-deal outcome, where the UK and EU trade under WTO terms, is the worst-case scenario for the UK economy. Dhingra et al (2016) estimate the economic costs of Brexit are twice as large in the no-deal case than if the UK remains in the Single Market.

Labour’s plan for Brexit is far from clear, but in many ways it resembles the Conservatives’ position. Labour hopes to retain the benefits that come from membership of the Single Market and the customs union, but also pledges that freedom of movement with the EU would end after Brexit.

Since labour mobility is a precondition for membership of the Single Market, this implies Labour would take the UK out of the Single Market and then seek a new agreement that minimises the resulting increase in trade costs. The only unambiguous difference between Labour and the Conservatives on Brexit is that Labour acknowledges that no-deal is the worst possible option for the UK.

In contrast to Labour and the Conservatives, the Liberal Democrats want the UK to stay in both the Single Market and the customs union. They also propose that once a new deal has been negotiated, the UK should hold a second referendum to choose between the new deal or remaining in the EU.
What Brexit means

In preparing for Brexit, the UK government and the EU need to make decisions in four main areas related to trade and investment.

First and most importantly, what will the UK’s relationship with the EU be once Brexit occurs?

Second, how will UK law change following withdrawal from the EU? Currently, in areas where the UK has ceded sovereignty to the EU, such as regulation of the Single Market, UK law is shaped by decisions made at the EU level.

The government’s White Paper proposes legislation transposing EU regulations into UK law. Whether this will eventually be replaced by a new regulatory policy is uncertain, but since the EU operates about 34 regulatory agencies, the UK will need to decide which competencies it replicates and which it can negotiate to be shared with the EU. There will be a cost of developing the competencies necessary to manage these areas, since the required skills do not currently exist within the UK civil service.

Third, the UK will need to decide what policies to adopt in areas that currently fall under the authority of the EU such as trade relations with non-EU countries.

In addition, the UK is the third largest recipient of EU research and innovation funding (Ugwumadu, 2013). Following Brexit, the government will need to decide whether to replace this funding. The White Paper aspires to be part of EU research programmes, but this is up in the air until the EU agrees.

Fourth, will there be a transition period between the date Brexit occurs and the date a new deal comes into force? Since Article 50 only allows two years for exit negotiations, a transition period will probably be needed to allow sufficient time for a new trade deal to be agreed.

The remainder of this report describes alternative post-Brexit futures for UK-EU relations and summarises the economic and political consequences of each option. It then discusses how Brexit has affected the UK economy in the year since the referendum.

As will become clear, the key trade-off that the UK faces outside the EU will be the same trade-off that has always dominated the country’s European policy. There are economic benefits from integration, but obtaining these benefits comes at the political cost of giving up sovereignty over certain decisions. Inside or outside the EU, this trade-off is inescapable.
Long-run economic consequences

The Conservatives’ ‘no-deal’ option
Suppose the UK leaves the EU without putting in place any new trade deals. Then the country’s trade with both the EU and almost all the rest of the world would be governed by the World Trade Organization (WTO).

As of July 2016, the WTO had 164 members comprising all major economies and most minor ones. Under WTO rules, each member must grant the same ‘most favoured nation’ (MFN) market access, including charging the same tariffs, to all other WTO members. The only exceptions to this principle are that countries can choose to enter into free trade agreements that cover substantially all trade between them, such as the EU or the European Free Trade Association (EFTA), and they in turn can give preferential market access to developing countries.

As a WTO member, the UK’s exports to the EU and other WTO members would be subject to the importing countries’ MFN tariffs. Compared with EU or EFTA membership, this would raise the cost of exporting to the EU for UK firms (Dhingra et al, 2016). The UK’s services trade would also be subject to WTO rules. Since the WTO has made far less progress than the EU in liberalising trade in services, this would mean reduced access to EU markets for UK service producers.

Estimating a state-of-the-art model of international trade using comprehensive trade data, Dhingra et al (2016) estimate the no-deal option would lead to a large reduction of about 40% in trade with the EU over the next ten years. The economic effect of this change would be equivalent to a 2.9% reduction in the UK’s income per capita (or 2.6% net of changes in budget payments from the UK to the EU). In this no-deal scenario with large increases in trade costs, Brexit would lower income per household per year by £1,890 relative to the UK’s existing relationship with the EU.

But these estimates are based on a static trade model that does not account for the dynamic effects of trade on productivity. Trade can have positive effects through increasing competition, which reduces excess profits and promotes efficiency. Competition, access to superior intermediate goods and a larger export market can also stimulate innovation. Alternative ways to estimate the impact of Brexit on the UK economy suggest accounting for these dynamic effects would double or triple the costs of Brexit described in the previous paragraph.

The WTO has no provisions for free movement of labour, so under this scenario, free labour mobility between the UK and the EU would cease. But free movement of capital between the UK and EU would probably continue, as the EU prohibits restrictions on capital mobility not only within the EU, but also with countries outside the EU.

After leaving the EU, the UK would no longer be bound by the EU’s common external tariff, but would be free to set its own MFN tariffs on imports. As a starting point, the UK could establish the existing tariff commitments that it has through the EU. It could then choose to reduce its import tariffs below EU levels to lower import costs for UK consumers and firms and increase the competition faced by UK businesses.

But since the average tariff charged on imports to the EU is only 1% (World Bank, 2015), there is limited scope for such further tariff reductions. There is also limited scope to lower ‘non-tariff barriers’ through unilateral action since reducing these barriers often requires harmonising polices, regulations or product standards across countries, which requires
international agreement. As a result, unilaterally removing all tariffs on imports into the UK would reduce the costs of Brexit by just 0.3 percentage points. The overall effect of Brexit is still estimated to be negative.

The pay-off for the lack of economic integration in the no-deal scenario would be greater political sovereignty. Being outside the Single Market would enable the UK government to set economic policy and regulatory standards without taking account of the preferences of other EU members. But any divergence in regulation between the UK and the EU would still act as a non-tariff barrier to trade and raise the cost of doing business with Europe.

Overall, it is uncertain how leaving the Single Market would affect the UK’s economic policies and regulations and whether any changes would be beneficial. The OECD finds that even as a member of the Single Market, the UK’s labour and product markets are substantially less regulated and more flexible than those of other EU countries (Koske et al, 2015). The manifestos do not contain enough detail to determine the set of regulations that will be retained or replaced.

If the UK and the EU do agree a new trade deal, its scope will depend on how much control over regulations and immigration the UK wishes to get and whether it is willing to trade-off less control for greater market access. So what are the options the UK could pursue in search of an ambitious trade deal with the EU?

**Re-joining the European Free Trade Association**

When the UK opted out of joining the European Economic Community in 1957, it founded EFTA as an alternative. EFTA is a free trade area covering all non-agricultural goods. EFTA also has free trade agreements with the EU and numerous other countries.

Re-joining EFTA would guarantee UK goods tariff-free access to the EU and ensure the UK did not impose tariffs on goods imported from the EU. But it would not provide for free movement of people or free trade in services between the UK and the EU. Since the UK would not belong to the Single Market, re-joining EFTA would also probably result in a gradual divergence between economic regulation in the UK and the EU. This would increase non-tariff barriers to trade between the UK and the EU.

Although EFTA membership has been recommended by the House of Commons’ International Trade Committee, the economic costs of joining EFTA would look similar to the no-deal scenario. Dhingra et al (2016) estimate the costs of Brexit to the UK economy will come primarily from increases in non-tariff barriers between the UK and the EU, not from changes in tariffs.

In 1960, when EFTA came into being, reducing tariffs was the primary goal of efforts to lower trade costs and promote international economic integration. But the success of the WTO, the EU and other regional and bilateral trade agreements in lowering tariffs has shifted the focus of today’s trade negotiations towards non-tariff barriers and trade in services. EFTA is not designed to promote integration in these areas. Consequently, all EFTA members have either left to join the EU or sought greater integration with the EU through other channels.

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1 ‘Non-tariff barriers’ comprise any measure that raises the costs of trade but does not take the form of a tariff. It covers everything from quantitative trade restrictions such as import licensing to border costs of complying with customs procedures and behind the border costs caused by regulatory or product standard differences across countries. The EU Single Market has reduced non-tariff barriers between member states by removing customs procedures and harmonising regulations and product standards.

2 [https://www.publications.parliament.uk/pa/cm201617/cmselect/cmintrade/817/817.pdf](https://www.publications.parliament.uk/pa/cm201617/cmselect/cmintrade/817/817.pdf)
At present, the members of EFTA are Iceland, Liechtenstein, Norway and Switzerland. All these countries are either members of the European Economic Area (EEA) — Iceland, Liechtenstein and Norway — or have their own bilateral agreements with the EU (Switzerland).

Unless the UK wishes to opt out of all forms of economic integration except tariff removal, re-joining EFTA is not a stand-alone solution to the problem of what should follow Brexit. An ambitious new trade deal that keeps trade barriers with the EU low would therefore need to look more like a Swiss model or a Norwegian model. But this will be difficult to achieve without free movement of people, which the Conservative manifesto has ruled out.

**A longer-term Swiss model of bilateral deals**

Switzerland is not a member of the EU or the EEA. Instead, it has negotiated a series of bilateral treaties governing its relations with the EU. Usually, each treaty provides for Switzerland to participate in a particular EU policy or programme. For example, among many others, there are treaties covering insurance, air traffic, pensions and fraud prevention. Switzerland is also a member of EFTA, which provides for free trade with the EU in all non-agricultural goods.

The bilateral treaty approach allows Switzerland the flexibility to negotiate which EU initiatives it wishes to participate in. Through EFTA membership and an agreement covering technical barriers to trade, Switzerland has achieved a similar level of goods market integration with the EU as EEA countries. As a result, Dhingra et al (2016) estimate the loss to the UK under a Swiss scenario is equivalent to a 1.3% reduction in income per capita (net of changes in budget payments to the EU), a halving of the reduction under the no-deal scenario outlined above.

Currently, there is also free movement of people between Switzerland and the EU, although Switzerland is contemplating giving residents hiring priority over foreign workers in high unemployment areas, following its 2014 referendum on imposing immigration restrictions (BBC, 2016).

Switzerland and the EU have not reached a comprehensive agreement covering trade in services. Consequently, Switzerland is not part of the Single Market for services and Swiss financial institutions often serve the EU market through subsidiaries based in London. This is the position that the financial services sector in the UK could find itself in, which would result in a reduction in the surplus in services trade and make the UK a less attractive destination for foreign investment in financial services.

Switzerland has almost no influence over the design of the EU programmes in which it participates. It makes an in or out choice, but has no ability to shape the content of the programmes. The treaties require Switzerland to implement policies and legislation set by the EU.

In this sense, Switzerland also trades integration for sovereignty and for the most part, Switzerland has chosen to remain relatively closely integrated with the EU by accepting most EU economic regulation. Like the EEA countries, Switzerland makes a financial contribution to the EU to cover regional funding and the costs of the programmes in which it participates. Switzerland’s contribution in recent years has averaged around £53 per capita, 60% lower than the UK’s net contribution per capita (House of Commons, 2013). Despite this saving in membership fees, the UK would have a net loss in income of £850 per household, largely due to the higher trade costs in services.

Adopting the Swiss model following Brexit could be appealing if the UK is looking for an ‘à la carte’ approach to European integration. But there are drawbacks. The EU would be under
no obligation to serve the UK everything on the menu, which means that the Swiss model would not provide the same guarantee of market access that EU or EEA membership offer. Overall, it is likely the Swiss model would result in less economic integration between the UK and the EU than EEA membership, leading to higher economic costs of Brexit.

An interim Norwegian model
While the Swiss model of bilateral treaties took decades to evolve, a ready solution for maintaining market access is the Norwegian model. As the template already exists, the current Brexit negotiations could adopt this as a transitional arrangement. It is also compatible with the manifesto of the Liberal Democrats in as much as it maintains access to the Single Market.

The EEA was established in 1994 to give European countries that are not part of the EU a way to become members of the Single Market. The EEA comprises all members of the EU together with three non-EU countries: Iceland, Liechtenstein and Norway. Members of the EEA are part of the Single Market and there is free movement of goods, services, people and capital within the EEA. Since EEA members are part of the Single Market, they must implement EU rules concerning the Single Market, including legislation regarding employment, consumer protection, environmental and competition policy.

Joining the EEA would allow the UK to remain part of the Single Market while not participating in other forms of European integration. EEA membership does not oblige countries to participate in the monetary union, the EU’s common foreign and security policy or the EU’s justice and home affairs policies. EEA members also do not participate in the common agricultural policy (CAP). While there is free trade within the EEA, EEA members are not part of the EU’s customs union, which means that they can set their own external tariff and conduct their own trade negotiations with countries outside the EU.

EEA members effectively pay a fee to be part of the Single Market. They do this by contributing to the EU’s regional development funds and contributing to the costs of the EU programmes in which they participate. In 2011, Norway’s contribution to the EU budget was £106 per capita, only 17% lower than the UK’s net contribution of £128 per capita (House of Commons, 2013). Becoming part of the EEA would not generate substantial fiscal savings for the UK government.

Ten years after Brexit in a Norwegian model, Dhingra et al (2016) estimate trade with the EU would fall by a more modest 20 to 25%, and the economic costs would be equivalent to a reduction in the UK’s income per capita of 1.3% per year (net of changes in budget payments to the EU), again a halving of the no-deal scenario. Consequently, EEA membership is an appealing option for those attracted by the economic benefits of the EU, but who are not in favour of ‘ever closer union’.

There are other downsides to joining the EEA in addition to the membership fee and the need to follow EU regulations. For example, as an EEA member Norway does not belong to the EU’s customs union. This means Norwegian exports must satisfy ‘rules of origin’ requirements to enter the EU duty-free.³

With the growing complexity of global supply chains, verifying a product’s origin has become increasingly costly and time-consuming. If the UK joined the EEA, part of this cost would be borne by UK exporters, which would need to limit their use of inputs imported from outside

³ ‘Rules of origin’ are used to determine whether a product originated in a free trade area and is eligible to enter a market duty-free. The precise specifications of rules of origin are complex and variable, but typically to benefit from free trade, a product must undergo a certain level of processing within a country that belongs to the free trade area, or a certain proportion of its value-added must come from within the free trade area.
the EU to meet the EU’s rules of origin (Stewart-Brown and Bungay, 2012). The EU can also use anti-dumping measures to restrict imports from EEA countries, as occurred in 2006 when the EU imposed a 16% tariff on imports of Norwegian salmon.

Nevertheless overall, while these consequences of EEA membership would increase the cost of doing business with the EU, they are limited compared with the costs the UK would face outside the Single Market. The UK could avoid a cliff-edge for workers and companies when Brexit occurs by negotiating an interim arrangement like the one that Norway has. Given there is already a model to follow, this arrangement could be negotiated in a timely fashion.

The economy one year on from the referendum

In the long run, Brexit is expected to reduce UK living standards through reductions in trade and foreign direct investment, but these effects will take many years to materialise. It is harder to forecast the short-run economic effects of Brexit in the period before the UK leaves the EU. How the economy responds will depend on what businesses and consumers expect to happen in the future and on whether they change their behaviour in advance of Brexit.

In the past year, there has been no obvious effect of the referendum outcome on UK GDP, which has continued to increase at a similar rate to before the vote. Figure 1 shows quarterly real GDP growth since the start of 2015. Growth has averaged 0.47% in the three quarters since the referendum compared to 0.43% in the previous six quarters.

The Brexit vote has increased uncertainty about the future of the UK’s economic relations with the EU. When uncertainty is high, businesses often adopt a wait-and-see approach and delay or cut investment projects and hiring (Baker et al, 2015). Such uncertainty also makes the UK a less attractive investment destination for multinational firms that want to produce and sell in the Single Market.

It is too soon to say whether anticipation of Brexit will cause an investment slowdown. But there is increasing evidence of firms planning to move jobs out of the UK because of Brexit, particularly in the finance industry, where banks such as JPMorgan and Deutsche Bank have already warned that they plan to move staff away from London (Financial Times, 2017).
Because GDP growth has not declined since the referendum, it is tempting to conclude that Brexit is yet to have an economic impact. But this would be wrong. Brexit has already lowered UK living standards through its effect on the value of the pound. At the end of April 2017, sterling was 13% lower against the US dollar and 9% lower against the euro than on the day of the referendum (see Figure 2).

The depreciation of sterling is bad news both because of what it tells us and because of its impact on the UK. The depreciation is a signal that investors’ expectations about the UK’s economic performance have deteriorated. Many factors determine exchange rate movements, but one of them is economic growth. Fast growth leads to exchange rate appreciation, while countries that grow slower than the rest of the world see their currency become less valuable. The pound depreciated because markets anticipate that the UK’s future economic growth will be lower than it would have been if the UK remained in the EU.

The effect of the depreciation has been to reduce the UK’s terms of trade – that is, the price of the UK’s exports relative to its imports. The terms of trade are a measure of how much the UK can buy from the rest of the world in return for what it produces. Crucially, a reduction in the terms of trade makes the UK worse off even if GDP is unchanged because it means the UK can afford to buy less in return for its exports.

Consider the following simple example, which illustrates the impact of a reduction in the terms of trade. Suppose the UK only produces apples and that it grows 30 apples per year. UK consumers demand both apples and oranges in equal numbers, so the UK exports apples in order to pay for orange imports. If one apple can be exchanged for one orange, the UK will export half its apples and UK consumers will eat 15 apples and 15 oranges.
Figure 2: Sterling exchange rate, 2016 to 2017

Notes: End of day exchange rates.
Source: Bloomberg.

But now suppose the UK’s terms of trade deteriorate so that one apple is only worth half an orange. Then the UK will end up exporting 20 apples to buy only 10 oranges. UK GDP (apple production) has not changed, but because of the terms of trade shock, UK consumers are worse off as they now only eat 10 apples and 10 oranges. To keep consumption constant following this shock, UK production would need to increase to 45 apples per year.

The depreciation of sterling may provide a boost to UK GDP due to increased demand for cheap UK exports. But even if this happens, it is not likely to offset fully the costs from lower terms of trade.

To date, the impact of the depreciation on UK living standards has operated through higher prices. Rising import costs have led to a sharp rise in inflation from 0.5% in June 2016 to 2.7% in April 2017, as shown in Figure 3. Since nominal wages have continued to grow at around 2% per year this has led to dramatic fall in real wage growth. In the year to March 2017, real wages actually declined by 0.5%. (See the CEP Election Analysis on Real Wages and Living Standards for more detailed analysis.) This shows how Brexit has already started to make UK citizens poorer.
Concluding remarks

The referendum outcome gave a mandate for the UK to leave the EU, but offered no guidance on what form Brexit should take. Remaining in the Single Market would minimise the economic costs of Brexit. Leaving the EU without any new deal in place would be the most costly alternative. The next government will face a choice of whether to prioritise asserting national control over the economy or developing policies that maximize economic well-being. The Conservative and Labour manifestos suggest that, whichever party wins the election, control will be their priority.

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Notes: Inflation is annual change in CPI. Wage growth is annual change in seasonally adjusted Regular Pay.
Source: ONS.
Further reading


5. The UK's New Industrial Strategy

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CEP ELECTION ANALYSIS

The UK’s New Industrial Strategy

- The UK’s continued poor productivity performance since the financial crisis and new economic challenges – in particular, related to Brexit – necessitate the formulation of a new, overarching and long-term industrial strategy. Such a strategy must aim for growth that is fairly distributed across society and space, and is environmentally sustainable.

- Chronic underinvestment in skills, infrastructure and innovation has held back growth in the UK. A successful modern industrial strategy should combine economy-wide policies – such as ensuring schools are adequately resourced and stimulating investment in infrastructure or R&D – with more focused sector or place-based policies that seek to address specific market failures that hold back growth.

- Institutional reform is key to differentiating a new industrial strategy from collections of business policies that have gone before. The aim should be an industrial strategy that is based on political consensus and institutions that give it stability and protection from the political cycle.

- All three main parties are committed to having an industrial strategy and to providing more support for innovation. But there are major differences in the parties’ business policies. Labour would significantly raise business taxes and government borrowing to finance large-scale spending and investment in skills and infrastructure, and plans to renationalise the major utilities. The Conservatives would keep taxes low, and maintain commitment to a smaller level of borrowing for public investment, as announced in the last Autumn Statement.

- Both the Conservatives and Labour would seek to intervene in energy markets by setting price caps of some form. Such policies could have negative impacts on competition: it is preferable to strengthen the role of regulators and take further steps to stimulate effective competition.

- The Conservatives’ policies of arbitrary immigration targets, restrictions on foreign students and increasing the costs for firms that employ non-UK workers are likely to hurt productivity.
Introduction

‘Industrial strategy’ has returned to the policy agenda, with the government recently setting out its plans in a Green Paper, and dedicated sections appearing in the election manifestos of all three main parties.

Until recently, the term tended to be associated with attempts to ‘pick winners’ which often resulted in subsidising losers at taxpayers’ expense. But every government has an industrial strategy however it is articulated: government affects the investment climate for business through tax and regulation, establishes national priorities, invests in skills, infrastructure and research, and procures outputs from the private sector, all of which influence the evolution of the private economy. What has varied over time is how far governments are willing to spell out their industrial strategy and the arguments that motivate it.

An effective modern industrial strategy must be based on an understanding of market failures that are holding back economic growth, and whether these can be usefully addressed by government. It should be more than a collection of policies aimed at boosting business performance; rather, it should represent a long-term, coherent plan for sustainable and equitable growth in the UK.

Why does the UK need an industrial strategy?

Since the financial crisis, a key policy priority has been to improve UK productivity performance. Productivity fell after the financial crisis and has been flat ever since. In the most recent data from the fourth quarter of 2016, GDP per hour stands at 18% below its trend between the first quarter of 1979 and the second quarter of 2008 (see Figure 1). There are a number of potential explanations for this ‘productivity puzzle’, including reduced investment following the financial crisis, a slowing in innovation or its diffusion, and measurement issues, but to date economists have not been able to account for it fully.¹

To some extent the puzzle is international. Other countries – including France and Germany – have experienced similar trends, but they have been quicker to bounce back than the UK. Of course the flipside to this poor productivity performance has been record number of people in work, but real wages are still around 5% below their pre-crisis peak (see the first Election Analysis in this series, Real Wages and Living Standards in the UK’). To achieve sustainable growth in living standards and to fund public services, the UK must improve its productivity performance.

¹ See Haldane (2017) for recent discussion.
Achieving better productivity growth will allow the UK to begin to close its ‘productivity gap’ with other advanced economies (Figure 2). This gap is longstanding (though it was narrowing in the years before the financial crisis) and is largely explained by chronic under-investment in skills, infrastructure and innovation including management practices.²

But economic growth itself is not the only objective. The Brexit vote and the general rise of populism in the Western world have highlighted the importance of ensuring that the benefits of economic growth are distributed fairly across society and geography. These issues are discussed in more depth in the CEP Election Analyses on real wages and regional policy. Sustainable growth also requires an appreciation of the environmental impact of economic activity and the UK’s legally binding climate change targets should play a key role in shaping industrial strategy.

² These issues were the focus of the first report of the LSE Growth Commission (2013).
In recent years there have been a number of policies aimed at raising productivity and business performance. During the Labour years 1997-2010, most such policies were economy-wide including a new emphasis on research and development (R&D), public capital investment, and a long-term commitment to public education and expenditure on science.

Following the 2008 financial crisis, Labour’s business secretary Peter Mandelson began to develop a case for a return to more selective industrial policy. But it was his successor Vince Cable in the coalition government who formally set out an industrial strategy that included support for key sectors and technologies, coupled with more focus on place-based policies like the ‘Northern Powerhouse’. The coalition government also had a ‘Plan for Growth’, which was followed by the Conservative government’s ‘Productivity Plan’ in July 2015. Most recently, the government has released a Green Paper including a number of proposals on industrial strategy.³

Given the scale of the UK’s productivity woes, increased economic risks and uncertainties surrounding Brexit, and the need to deliver more equitable growth, the challenge now facing the new government will be to set out a long-term, overarching strategy to raise business performance in the UK. To have a real impact, this should be more than a grouping together of existing policies with some policy reforms at the margin. It should form part of a wider growth strategy that consists of economy-wide policies for skills, infrastructure and investment that

³ See Davies et al. (2017) for the CEP response to the Green Paper.
apply to all UK firms, and it should also involve selective policies targeted towards addressing market failures in specific sectors, firms or localities.

The UK must continue to maintain its openness to trade, foreign direct investment and international talent post-Brexit – all of which have been key factors in its economic success to date. In this sense, industrial strategy should be consistent with the UK’s strategy for exiting the EU and negotiating new trade deals. This briefing outlines some key issues that the government must address in its formulation of industrial strategy, before moving on to compare what the main parties are promising in these areas. While issues regarding skills, immigration, Brexit and regional disparities are touched on here, they are covered in more detail in other CEP briefings in this Election Analysis series⁴.

### Institutional structures for industrial strategy

Industrial strategy in the UK has tended to be fragmented and mercurial, with teams in different government departments often working separately, and regular re-branding or changing of business policies. This creates uncertainty, which harms investment. Lessons can be learned from the strong institutional frameworks governing UK monetary, fiscal and competition policy. The LSE Growth Commission recommended that industrial strategy should be given a new law or long-lasting mandate.⁵ And since the existing EU state aid framework has blocked arbitrary political intervention in the economy, a new one is needed when the UK leaves the EU. A set of transparent rules for intervention is also required, and should be based on identifying market failures. Competitive processes should be used wherever possible to ensure that government support is channelled to its most beneficial use.

The ultimate objective is a strategy based on political consensus and isolated from political cycles. An independent body of some form would help to achieve this. To enhance transparency, a long-term plan setting shared objectives and aligning decision-makers should be published, together with a standardised annual report on the state of UK business, tracking policy progress and success.

With the trend towards devolution and the agreement of a number of City Deals over the last few years, a number of important policy levers that can help to deliver an effective industrial strategy are now at the level of nations and regions, including skills, innovation and infrastructure. But the current structure of local and regional governance is not well placed to address local challenges. While the Local Enterprise Partnerships (LEPs) have the potential to help deliver successful local economic growth strategies, there is some disjointedness between them and local government and it is unclear how they fit into the evolving devolution landscape. There are also concerns that they lack sufficient resources, and the incentives to invest in projects for long-term development. Universities are key actors in policies for places, improving regional economic performance via their role as producers of skills and incubators of innovation, but as yet there is no formal requirement that LEPs work with universities. It is crucial therefore to improve engagement between LEPs, local government and universities.

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⁵ Policy briefings on real wages and living standards, Brexit, health, immigration, education and regional policy.

Skills

Strong human capital is critical for sustainable growth, but the UK has had a persistent problem of high numbers of inadequately educated young people emerging into the world of work, and skill shortages are reported by employers in all sectors (Figure 3). Improving skills must be at the heart of industrial strategy.

Figure 3: skills shortages across sectors

Notes: Skills shortage vacancies as a percentage of total vacancies by sector.

A key component in this is improving school outcomes for disadvantaged children. To do this, it is important to ensure that the appropriate pre-school and school resources are provided and there are currently significant risks in this area, in particular with regard to schools funding. Continuous skill development can help workers gain greater security and adaptability in a world of rapidly changing technologies and labour market structures. While improvements in the further education and training system are central to this, individuals and firms must be able to finance such investments and the government can provide tax breaks to help in this regard. More details are in the forthcoming CEP Election Analysis on education and skills by Sandra McNally and Gill Wyness.6

Addressing the misallocation of female talent would be a way to use existing skills more effectively and it could potentially create large gains in productivity.7 Gender gaps in

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7 See Bandiera and Valero (2016).
participation and wages are high in the UK compared with other OECD countries. Such gaps are largely explained by career breaks and part-time work after women have children, and there is scope for the government to pursue more targeted policies to encourage parents to share work and home responsibilities, which would enable more women to put their skills to productive use.

Brexit poses new risks to the UK’s skill base, which has traditionally benefitted from international talent. This is not only an issue for UK firms, but also for universities. High quality students and researchers from abroad contribute to the economy directly, and international students also increase resources available for domestic students. The visa system for non-EU nationals was already considered too restrictive by many in the business community before the Brexit vote, and there are now new concerns around the status of EU nationals in the future.

**Investment and innovation**

UK infrastructure is poor by international standards and large-scale investments are required in all areas. The government has made some progress in infrastructure strategy with the establishment of the National Infrastructure Commission – an independent institution that should help to reduce policy uncertainty and hence lower the cost of capital of private sector investment. There have also been moves to channel more public sector investment into infrastructure, such as the pooling of local authority pension funds and the new ‘National Productivity Investment Fund’. These developments are welcome but there is still much to be done. The policy climate in many areas is still uncertain and a deterrent to long-term private investment. And there is, as yet, no clearly articulated strategy that joins up housing, transport and energy needs.

A range of sectors need to innovate to stay on the global technology frontier. The standard measure of innovation input is R&D expenditure. But UK R&D (both government and business funded) is consistently lower than international comparators as a share of GDP (Figure 4). There is extensive evidence that public R&D spills over to the private sector, and also ‘leverages-in’ private R&D, and there is therefore a strong case for increasing such spending in line with our peers.

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8 See for example, Haskel and Wallis (2013) and Goodridge et al. (2015).
While the UK excels in terms of the quality and impact of its research, it underperforms in the commercialisation of ideas. There are also well-documented problems with collaboration between business and universities, and new structures like the Catapult network⁹ appear to be a promising mechanism to improve this. The government’s focus to date has been predominantly on the supply side of research (universities). But a number of reviews on this topic in recent years have noted that addressing the demand side – particularly from businesses carrying out R&D – is crucial. There is evidence that R&D tax credits are an effective mechanism for giving incentives to smaller firms to engage in R&D.¹⁰

A key issue holding back investment in innovative firms – where the payoffs might be uncertain and a long way off – is inadequate access to finance. This is linked with the issue of excessive short-termism in UK business and financial markets, which hampers long-term investment more generally (investment in fixed capital in the UK is also lower than in our main international peers as a share of GDP). In recent years there has been debate around changes to corporate governance or the tax code to try to encourage investors to take a longer-term outlook (see for example, the Kay Review, 2012). More measures to improve competition in the banking sector and stimulate alternative sources of finance are also needed.

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⁹ [https://catapult.org.uk/](https://catapult.org.uk/)

¹⁰ See Dechezlepretre et al. (2016).
There are a multitude of government schemes targeted at small and medium-sized enterprises (SMEs), offering financial support or business advice. The rationale for such schemes is often unclear. Because SMEs have lower productivity, a concern is that firms have incentives to stay small to take advantage of these subsidies and this could depress aggregate productivity. From a productivity perspective therefore, support should be channelled towards high growth potential firms that face obstacles to investment and growth. There is a general lack of high quality evaluations of targeted business support schemes, and this should be addressed through the design of policy experiments where possible and the creation of better data sets.

**Policies for sectors**

There are cases where firms are affected by sector specific barriers to growth that can be addressed by government policy. Intervention might take the form of co-ordinating relevant stakeholders, risk sharing and investment, addressing sector specific regulatory issues or skills gaps. Government can also enter a sector directly by bringing assets into public ownership – most recently this was done with the banks following the financial crisis, but Labour has pledged large-scale renationalisations in its manifesto (more discussion below).

In developing sector policies, it is important that processes for granting support to particular sectors are competitive, transparent and based on a real understanding of whether there are market failures that the government can usefully address. This helps to minimise the risk of policy being influenced by the lobbying of incumbents with outcomes that are not necessarily beneficial for the UK economy as a whole. Strong and transparent institutions governing the UK’s industrial strategy (as set out above) can help to justify the grounds for sector-based support.

In recent years, the government’s industrial strategy has focused on high-performance/high growth sectors such as aerospace and pharmaceuticals. But low productivity sectors such as retail, hotels and administrative services employ a large share of the population (Figure 5), and also face obstacles to growth (such as the availability of skills or investment in technology). Sector policies that seek to raise productivity in such sectors could have large aggregate effects and also help to reduce wage inequality.

In practice, it is not always easy to define a sector, and indeed there may be multiple sectors that face common challenges. There is scope therefore for a ‘mission-oriented’ approach, which can help to bring together all relevant companies or technologies across sectors, and have the benefit also of potentially solving key public policy challenges in areas such as air quality in cities, health and social care – all of which are important goals in their own right, but are also likely to raise productivity in the long run.

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11 See Thompson et al. (2016).
The election context

Our 2015 Election Analyses\textsuperscript{12} included an overview of UK business policies.\textsuperscript{13} Since then the major development with implications for UK business is that the Brexit process is now underway, which has created new risks for future trade, investment and access to international skills. There are large differences between the parties, as discussed in the forthcoming CEP briefing on Brexit by Swati Dhingra and Thomas Sampson\textsuperscript{14}. But from an economic point of view, the commitment to a ‘hard’ Brexit that is being signalled by the Conservatives is likely to be the most damaging.\textsuperscript{15}

Domestic policies for business to date have been broadly similar. There have been further reductions in the main rate of corporate tax – which has come down to 19% (compared with 20% in 2015). Increases to the science budget – an area of public spending that was previously protected in real terms – were announced by Chancellor Philip Hammond as part of the new ‘National Productivity Investment Fund’. While this increased funding was a positive step, it still leaves total public R&D as a share of GDP below most other advanced economies.

\textsuperscript{12} http://cep.lse.ac.uk/election2015/
\textsuperscript{13} See Roland and Valero (2015).
\textsuperscript{14} See ‘CEP 2017 Election Analyses’, Centre for Economic Performance, LSE http://cep.lse.ac.uk/election2017/
\textsuperscript{15} See CEP analysis on Brexit at http://cep.lse.ac.uk/BREXIT/.
Despite a number of measures aimed at increasing competition in the banking market, the UK’s independent competition regulator recently concluded that shortfalls in competition remain.\textsuperscript{16} Moreover, there have not been any substantive changes in corporate governance or tax structures to promote long-termism in UK business. One positive step in this area has been the recent launch of a ‘Patient Capital Review’, looking into the availability of long-term scale up capital from innovative firms.\textsuperscript{17} While the current government has been developing a new industrial strategy, this is in its early stages, and as we set out above, will require institutional reform to differentiate it clearly from policies that have come before.

In contrast with 2015, the main parties are now setting out some very different policies for business in their 2017 manifestos. But there are also some areas of common ground, in particular where both Labour and the Conservatives are proposing more government intervention in markets. A summary of key policies and differences is given below.

\textit{Overall stance on industrial strategy}

The Conservatives outline an industrial strategy in line with government’s recent Green Paper, one that would seek to address economy-wide and sector or place-based challenges. They hint at the need for new institutional frameworks to ensure that industrial strategy can be for the long term, but do not provide any details on how this would be done. They would also strengthen the role of local authorities and LEPs in delivering industrial strategy in alignment with the national strategy, which would be likely to increase their effectiveness. The Liberal Democrats highlight similar priorities on devolution and strengthening local institutions. More CEP Election Analysis of regional policy will be in the forthcoming briefing by Henry Overman.\textsuperscript{18}

Labour outlines an industrial strategy based on ‘missions’, in particular decarbonisation and making the UK an ‘innovation nation’. Other than their planned renationalisation of transport and utilities (see below), they appear to focus more on economy-wide policies for skills, infrastructure, trade and R&D, but they do highlight the need to integrate trade and industrial strategy. Despite formally reintroducing industrial strategy into policy during the coalition years, the Liberal Democrats do not give it much explicit prominence in their manifesto. They discuss industrial strategy only in the context of innovation, and propose building on the coalition government’s industrial strategy, which focused on high growth, high comparative advantage sectors. Both Labour and the Liberal Democrats emphasise steps they would take to protect the environment, both in terms of decarbonisation and combating air pollution in the UK’s cities.

All parties acknowledge the importance of skills for economic growth, and all promise some extra investment in schools and other areas – but there are major differences in the extent of this, as discussed in the forthcoming CEP Election Analysis on education and skills by Sandra McNally and Gill Wyness mentioned previously. Labour and the Liberal Democrats would spend significantly more on schools and pre-schools (with Labour also promising increased spending in further and higher education too), to be funded through tax increases. The Conservatives plan a more modest increase in the main school budget, to be funded by ending universal free lunches. They promise they would amend the recently proposed changes in the

\textsuperscript{16} See CMA (2016).
\textsuperscript{17} https://www.gov.uk/government/publications/patient-capital-review.
\textsuperscript{18} See ‘CEP 2017 Election Analyses’, Centre for Economic Performance, LSE http://cep.lse.ac.uk/election2017/
funding formula so that no school would lose out as a result of reallocation. Overall however, substantial real-terms cuts in per pupil spending are to be expected under Conservative plans.

All parties talk of the need to address gender gaps in participation and pay, but Labour and the Liberal Democrats commit extra resources to lowering the costs of childcare. While the Conservatives outline plans to improve the take-up of shared parental leave, to promote flexible working and to make it easier to return to work after long breaks, they do not provide any detail. The Liberal Democrat policy of ‘use it or lose it’ months of parental leave for fathers is likely to be an effective policy for encouraging sharing of childcare responsibilities between parents, and helping mothers to return to work.19

The Conservatives’ strict immigration targets are likely to be damaging for the UK skills base, business and the research community. Students would continue to be included in immigration targets, and firms would face extra costs when hiring non-UK workers.

**Business taxes and regulation**

The Conservatives remain committed to further reductions in corporation tax to reach 17% by 2020. In sharp contrast, Labour intends to fund its large-scale spending commitments in part through increases in the corporate tax main rate to 26% by 2020 (to protect small businesses, however, Labour would re-introduce the small business rate). While the main rate would still be low compared with other G7 economies, it represents a large increase relative to the status quo. It is uncertain how much tax revenue this type of policy would raise, and in the current climate of uncertainty surrounding Brexit, it could prompt internationally mobile businesses to relocate abroad or invest less in the UK. A similar point applies to Labour’s proposed extension of stamp duty to a wider range of financial transactions (the so-called ‘Robin Hood’ tax). The Liberal Democrats would raise the main rate of corporate tax to 20% (back to its level during the coalition government) and reverse recent cuts to capital gains tax.

All parties promise review and reform of the business rates system, and further action to clamp down on tax avoidance. In addition, all parties discuss how companies should have duties to a wider group of stakeholders than just shareholders. The Conservatives and Liberal Democrats promise worker representation at board level in listed companies. Both Labour and the Liberal Democrats would reform corporate governance rules so that directors have duties to a wider group of stakeholders. Labour and the Conservatives also plan to tighten up rules on takeovers. For Labour, the focus would be on safeguarding jobs in strategically important sectors. The Conservatives would seek to enforce promises made by bidders and take action to protect key infrastructure assets. It is important to strike the right balance between continuing to attract foreign direct investment into the UK post-Brexit and ensuring that it serves the UK’s interests, and any new rules in this area should be transparent and based on clear reasoning.

**Investment and innovation**

In contrast to the 2015 election, all parties are now in agreement that some level of borrowing for public investment is acceptable and desirable from an economic perspective – particularly as interest rates remain low – but there are wide differences in the extent of this. While it is difficult to determine what would be the ‘right’ level of additional borrowing, some degree of caution is necessary given the high levels of economic uncertainty surrounding Brexit.

19 See, for example, Eckberg et al. (2013).
Both Labour and the Liberal Democrats plan significant increases in borrowing. Labour has announced a new ‘National Transformation Fund’ of £250 billion over 10 years. This would fund transport and infrastructure investment, R&D and broadband rollout. Labour also plans to establish a ‘National Investment Bank’, which would support a network of regional banks. It is unclear to what extent this would build on the existing British Business Bank (BBB) or be an entirely new institution supporting infrastructure investment in addition to providing finance to small businesses. It is also unclear to what extent the financing of the renationalisations and the new National Investment Bank are included in the £250 billion fund, and there is a strong possibility that additional borrowing would be required to meet all those policy commitments.

The Liberal Democrats would invest a more modest £100 billion on infrastructure, renewable energy, broadband, housing and capital investment in schools and hospitals. This would also include £5 billion of initial capital for a new ‘British Housing and Infrastructure Development Bank’. This type of institution has been one of the key recommendations of the LSE Growth Commission, as a mechanism to ‘crowd-in’ private investment. The Liberal Democrats would also expand the role of the BBB.

The Conservatives are sticking to their commitment to the ‘National Productivity Investment Fund’ of £23 billion, as announced in the 2016 Autumn Statement, to cover increased investment in infrastructure, housing and R&D. They also promise to build up university investment funds, and set up new sovereign wealth funds to invest in UK infrastructure.

All parties aspire to raise UK R&D intensity, with the Conservatives’ commitment to increase R&D further as a share of GDP to 2.4% within 10 years and a longer-term aim of 3%; a Labour target of reaching 3% by 2030; and the Liberal Democrats’ long-term aim to double R&D spending. This is a welcome contrast to the 2015 election, when no parties committed to more than a nominal ring-fence of the science budget. Labour and the Liberal Democrats both highlight the importance of EU research funding, and how access should be retained post-Brexit.

**Sector policies**

A dramatic difference between the parties on industrial strategy is their approach to utilities, with Labour proposing to renationalise the railways, the water industry (in England), the Royal Mail and parts of the energy industry. Key issues here are how the privatisations themselves – and continuing investment – would be financed, and whether the capacity exists to run these utilities better than the private sector. The arguments are different for each of these sectors, but the UK has a well-developed system of sector utility regulation and competition policy. What’s more, many of the challenges in these sectors – high prices, excessive profits and inadequate investment – can be addressed through regulatory reform and stricter measures to stimulate effective competition and investment.

Perhaps the sector where there is more public support for renationalisation is rail, where the network is already in public hands, and franchises are due to expire over the coming years. But again, continuing investment would have to come out of public funds, and previous UK experience with national ownership resulted in underinvestment. Given the current economic outlook and budgetary pressures, it is difficult to imagine why this time things would be different.

There seems to be some agreement on the need to take action against high energy prices, with both Labour and the Conservatives planning some form of price cap for certain customers, an
idea that was first mooted by Labour’s Ed Miliband in 2015. Key risks with this measure are that it would reduce the incentives for switching (and hence actually damage competition), and that energy companies would simply recoup lost profits by increasing prices for other customers. The focus of the government and the regulators should be on improving effective competition through reducing switching costs and reducing prices through energy efficiency. The wider issue in energy markets is security of supply as UK generating capacity is running dangerously low.

All parties plan to continue a programme of sector support, and all agree that such support should be extended to the creative industries. Consistent with the plans in the government’s Green Paper, the Conservatives would continue sector support for high-performing sectors, and extend support to other sectors that come forward for ‘sector deals’. Rather than spelling out sector industrial policy more generally, Labour appears to take a more missions-based approach, with some specific focus on sectors with strategic performance, where they would establish councils to oversee sectors of strategic significance to the UK. The Liberal Democrats promise to build on the industrial strategy they developed during the coalition years, focusing on innovative sectors in which the UK has comparative advantage.

Conclusions

All parties highlight the importance of an industrial strategy with the aim of improving UK economic growth and achieving more balance in how its gains are distributed. In addition, and in contrast to the 2015 election, all parties state a commitment to raising R&D as a share of GDP to bring the UK into line with international peers, which is welcome.

Both the Conservatives and Labour share a desire for more market intervention in some areas: promising energy price caps of some form, tightening up rules on takeovers, and – along with the Liberal Democrats – pushing company boards to consider the interests of workers.

But major differences have emerged with respect to business taxes, and the extent of public investment and intervention. The most dramatic differences are that Labour would renationalise large parts of the privatised utilities, and would raise corporate (and other) taxes to fund higher public spending in a number of areas.

Creating an institution like the Liberal Democrats’ proposed development bank or Labour’s National Investment Bank would provide a promising mechanism for addressing problems raising finance for infrastructure projects. The idea was a key recommendation of the LSE Growth Commission.

A significant concern for UK businesses, already facing skill shortages, will be increased difficulties in accessing international talent under the Conservatives’ net immigration targets. This type of policy is likely to damage productivity and innovation in the UK.

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Further reading


6. The UK's Regional Divide: Can Policy Make a Difference?

Henry Overman
There are large variations in economic performance across the cities and regions of the UK and, on some measures, they have widened since the global financial crisis. All the party manifestos promise action to reduce them, but there is little difference between them in terms of the policies that they would pursue to meet this objective.

The traditional policy mix – central government investments in local growth projects, transport and other infrastructure, funding for business support and access to finance, and a host of other interventions – has not been effective.

Greater local control is needed to improve policy effectiveness. The government has signed a number of devolution deals and city mayors have just been elected in areas with these deals.

It is too early to assess the effectiveness of devolution deals, but any new government will need to decide whether to support further devolution. When devolving powers, it is important that policies that have wide scale impacts (such as transport and housing) are coordinated across local areas.

Greater experimentation at the local level combined with effective evaluation would help improve policy, but this is highly unlikely given the short-term political focus on being seen to ‘do something’, which favours the announcement of new projects over the long-term development of policy effectiveness.

London’s strong economic performance plays a large part in explaining widening disparities. Providing an effective counter-balance to London may require policy aimed at ‘rebalancing’ to be more spatially focused – for example, on Manchester.

We ultimately care about the effect of policies on people more than on places. Efforts to rebalance the economy should be judged on the extent to which they improve opportunities for all, rather than whether they narrow the gap between particular places.
Introduction

There are large variations in economic performance across the cities and regions of the UK. There is a broad North-South pattern to these disparities. But there is also substantial variation within those broad areas: some Northern cities (such as Manchester) are doing well and some Southern cities (such as Hastings) are doing relatively badly. Despite many policy initiatives by the current and previous governments, these disparities remain large and persistent. On some measures, they have widened since the global financial crisis.

Table 1 shows how these differences play out in terms of population growth for a selection of UK cities. It highlights three important trends: first, the continued strength of London; second, the recent improvement in the performance of some cities; and third, the variation in performance, which is apparent even for neighbouring cities.

<table>
<thead>
<tr>
<th>Place</th>
<th>Region</th>
<th>1991-2001</th>
<th>2001-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Britain</td>
<td></td>
<td>4.1%</td>
<td>7.5%</td>
</tr>
<tr>
<td>London</td>
<td>London</td>
<td>7.2%</td>
<td>13.1%</td>
</tr>
<tr>
<td>Birmingham</td>
<td>West Midlands</td>
<td>0.5%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Stoke</td>
<td>West Midlands</td>
<td>-0.1%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Manchester</td>
<td>North West</td>
<td>-1.0%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Liverpool</td>
<td>North West</td>
<td>-2.1%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Newcastle</td>
<td>North East</td>
<td>-0.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Sunderland</td>
<td>North East</td>
<td>-3.5%</td>
<td>-1.3%</td>
</tr>
</tbody>
</table>

*Source: Cheshire et al (2014); authors’ own calculations based on census data.*

Cities Outlook\(^1\) is the most useful source of detailed data on the economic performance of UK cities. The 2015 report shows that between 2004 and 2013, population growth in cities in the South was twice the rate of growth of cities elsewhere. The growth in businesses was similarly unbalanced with an increase of over 25% in cities in the South compared with an increase of nearly 14% elsewhere.

The figures for jobs are even more dramatic: cities in the South had over 12% more jobs in 2013 than in 2004, while cities elsewhere saw only around a 1% increase. The 2017 report suggests that the most recent changes have reinforced these patterns. The differences are even

more marked for private sector employment (because public sector employment is more evenly distributed).

All of these figures highlight the limited progress towards reducing long-run differences. This is unsurprising. The economic processes that drive spatial differences are poorly understood by policy-makers, and evidence has historically played little part in the formulation of policy. While this is slowly changing, there remains confusion about what urban and regional policy can do, a confusion that is shared by all political parties.

The manifestos of the main parties the 2017 election campaign reflect the continuing urge that politicians feel to try to do something about the UK’s regional divide without any real understanding of what drives the differences in performance or what policies might be effective.

The Conservatives, for example, express concern about ‘a far greater gap between the capital and other cities in the UK than in any other major developed country. We see the opportunity to close this gap as the biggest prize in Britain today.’ And Labour promises to ‘invest in broadband, housing and transport to create jobs and ensure that the nation’s prosperity is felt beyond our large towns and cities.’

Understanding differences in performance: London versus the rest

What are the economic forces polarising the UK? As the figures make clear, a big part of the story concerns the geographical concentration of economic activity in London (and the South East). Is this concentration good for those who live or work in London but bad for those who don’t? Is the attraction of London creating an economy that is distinct from the rest of the UK? And what are the implications?

Neither finance nor the globally oriented part of the London economy are as important as suggested by popular discussion. Financial services are clearly important, but most of London’s long-term job growth has come outside finance or those sectors closely linked to it. For example, London has strengths in a range of business and information services well beyond the financial sector.

London is a preferred location for the super-rich, but this is a tiny, if much publicised, minority. For example, while the fraction of foreign buyers in London residential properties worth over £2 million is around 50%, these transactions represent less than 0.5% of overall transactions. Even in terms of overall transactions, recent increases in foreign demand are swamped by increases in demand from first-time buyers and other sources of domestic demand. It is domestic sources of demand that drive the London housing market.

In fact, what is most distinctive about London’s economy is its competitive strength and skill levels across a wide range of services. A large part of the superior economic performance of London (and the broader South East) comes from the concentration of skilled workers who would be paid relatively well wherever they lived. In turn, that concentration is partly because London provides greater opportunities for such individuals to use and develop their talents.

See http://spatial-economics.blogspot.co.uk/2013/05/foreign-buyers-and-london-property.html.
All of this means that London has higher wages, more expensive housing and a greater general cost of living, with the gap in all of these rising as wage inequality has grown since the late 1970s. But at least for those who are young, able and willing to economise on housing costs, London offers opportunities that are simply not available elsewhere. And since many London residents later move on to other areas of the country, the city also acts as a source of highly skilled workers for local economies throughout the UK.

Whether this seems good or bad for the UK partly depends on how we tell the story about what is going on. If, as is popular, we talk about London sucking the talent from the rest of the UK, then this sounds like a pretty bad thing. But if we think of London’s performance as the result of a large number of people responding to the opportunities that London offers, then this changes the debate:

- First, it becomes clear that we need to think about individual winners and losers. Some of the basic effects are described in an Annex.
- Second, it helps to focus attention on why London offers those opportunities and whether they could be created elsewhere. A large body of evidence suggests that both size and the concentration of skilled workers is key to generating these opportunities, which makes it harder to generate similar opportunities elsewhere.

On the implications for overall economic growth, the debate is polarised. For some, it is obvious that spreading growth across the UK would make use of underused resources. For others, London and the South East are key, and we should focus on making sure they continue to perform.

Since there is already a lot of redistribution away from London, the questions are first, whether there should be a lot more spatial redistribution than now, and second, whether we should put a high value on policies restraining London’s growth (for example, tougher green belt policies; even lower London allowances for public sector workers, etc.).

There is no evidence pointing to large benefits from spatial redistribution and much evidence that very restrictive planning in London and the South East has been harmful (see Hilber, 2015). Hence, artificially restraining London’s growth does not seem like a desirable policy.

**Policy responses: who and where?**

Rather than focus on London’s dominance, we should ask why other large UK cities do not offer similar economic opportunities and what can be done about it? Looked at this way, the evidence suggests that what we need is, paradoxically, the growth of one or two other large cities so that they provide similar opportunities.

This is because overall population size helps generate more opportunities (as a result of what economists call ‘agglomeration economies’). So too does the concentration of skilled workers and of certain types of knowledge-intensive industries (which employ those high-skilled workers).

**City size**

If size matters, perhaps the issue is not that London is too big, but that some of our second cities are too small. International comparisons are suggestive. For example, applying Zipf’s
Law (which suggests that the second largest city tends to be half the size of the largest, the third city a third the size of the largest, and so on), the UK’s larger cities after London all look too small.

Part of the reason for this is that population is quite spread out across a number of cities. Concentrating population in a smaller number of larger cities would bring us more in line with other countries. A powerful body of research points to the importance of agglomeration economies and the barriers to realising the benefits from those economies (in particular the UK planning system). In short, these international comparisons do raise questions about the relative size of our cities.

**Local growth policies**

In principle, recent changes to the institutions and structures that deliver local growth policy allow for greater policy variation across areas. The move from 10 regional development agencies (RDAs) to 39 ‘local enterprise partnerships’ (LEPs) and a growing number of city mayors, in most cases moved strategic decision-making on economic development policies – particularly on transport – to a more appropriate scale: somewhere above local authorities (which are usually too small) but beneath regions (which are too big). The deal-making approach\(^3\) – through city deals, local growth deals and now devolution deals – also allows for greater policy variation.

In practice, however, central government still ultimately makes decisions on deals. And this, combined with the centralised dispersion of funds from the Regional Growth Fund and other sources of local growth funding (such as infrastructure expenditure), continues to constrain local decision-makers. Recent Devo-Deals suggest that the Conservative government may be willing to go further – at least in areas with a good track record and credible governance arrangements. But this ‘earned autonomy’ model is criticised by those who would like to see more systematic devolution to all local areas.

**Policy variation across areas**

While in principle, the government’s reforms allow for greater policy variation across areas, the extent to which politicians in central government can live with the consequences – in terms of variations in economic performance – remains to be seen.

The ‘Northern powerhouse’ agenda – which aims to create a counterbalance to London by better integrating and empowering the collection of Northern cities – highlights these tensions. The evidence suggests that agglomeration economies work at smaller scales than the entire Northern economy, so more uneven development across Northern cities may be necessary if we want one of these cities to provide the kind of opportunities available in London.

Labour, with their focus on inequality, find these issues even harder to address and have a tendency to focus on the objective of improving growth across all failing areas – regardless of whether this is achievable or the best way to help individuals.

To try to resolve this tension, it is always worth remembering that ultimately we care about the effect of policies on people more than on places. If growth for all requires us to provide

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opportunities for all, then it just may be that we have to put up with the fact that some places will always do better than others.

**Policy responses: what?**

Discussion around the systems through which urban and regional economic policy is delivered often distracts attention from more fundamental questions about the effectiveness of particular policy interventions. The Conservative government has recently shown a willingness to begin to tackle this challenge through support for the What Works Centre for Local Economic Growth (and the wider What Works Network, in which I am involved).

*Transport infrastructure*

London’s success depends on transport investment, but it is not driven by transport investment. Public sector transport investments are already quite evenly distributed, and evening out transport investment further will not be particularly effective in generating opportunities elsewhere. It is also highly debatable whether HS2 will narrow disparities with the government’s own analysis pointing to disproportionate benefits for cities on the line (including London).

*Housing*

One major barrier to creating additional opportunities in London and other more successful places is that supply restrictions mean that house prices rise very fast in response to local demand growth. Relaxing planning restrictions and building on the green belt would help (see Hilber, 2015).

*Area-based initiatives*

Policies that offer support for particular areas of cities or regions (such as enterprise zones) are unlikely to be effective in addressing broad differences in performance. The evidence mostly suggests that these lead to displacement from other nearby areas rather than creating a large amount of new job growth. Similar problems limit the economic impact of other regeneration policies.

*Business support*

There is a depressing paucity of high quality studies evaluating business support policies. Overall, the current evidence on business support policies (such as improving access to finance, or offering advice and expertise) suggests that these types of policies are not very effective at generating employment growth. For more discussion, see Roland and Valero (2015) and the What Works (2014a, b) evidence reviews.

But there is some evidence that specific policies can improve job growth. For example, Criscuolo et al (2012) find job increases from European regional aid but only for small and medium-sized enterprises and there does not seem to be a sustainable increase in productivity. We need to understand better what separates successful from unsuccessful interventions.

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4 [http://spatial-economics.blogspot.co.uk/2014/06/local-transport-expenditure.html](http://spatial-economics.blogspot.co.uk/2014/06/local-transport-expenditure.html).

Skills
Local differences in the skill levels of workers play a large role in explaining disparities across cities. This suggests that education and training may have an important role to play in helping address these disparities. As with business support, policy needs to address similar concerns about cost-effectiveness although there does appear to be growing support for experimentation and evaluation aimed at improving the cost-effectiveness of policies. (For more discussion, see McNally, 2015.)

Conclusion

There are large variations in economic performance across the cities and regions of the UK and on some measures, they have widened since the global financial crisis. All the party manifestos promise action to reduce them, but there is little difference between them in terms of the policies that they would pursue to meet this objective.

The traditional policy mix – central government investments in local growth projects, transport and other infrastructure, funding for business support and access to finance, and a host of other interventions – has not been effective. There is a growing recognition that greater local control may be needed to improve policy effectiveness, although there is disagreement about the form this devolution should take. Whatever happens, it is important that policies that have wide scale impacts (such as transport and housing) are coordinated across local areas.

London’s strong economic performance plays a large part in explaining widening disparities. Providing an effective counter-balance to London may require policy aimed at ‘rebalancing’ to be more spatially focused – for example, on Manchester. Concentrating resources in this way is controversial and difficult for constituency-based politicians (in both central and local government).

It is helpful to remember that we ultimately care about the effect of policies on people more than on places. Efforts to rebalance the economy should be judged on the extent to which they improve opportunities for all, rather than whether they narrow the gap between particular places.

June 2017

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Annex: who gains and who loses from London’s success?

If we focus only on average outcomes, we see population, wages and house prices increasing in London and falling (at least in relative terms) in other cities. But from the perspective of people who live in these different places, the economic impact is much more nuanced. Indeed, as is the case for the majority of significant economic changes, the story is one of gainers and losers in all cities (including London).

In London, higher wages (and better amenities) tend to offset higher housing costs. If this were not the case, then people would not be moving to the city and it would not be growing so spectacularly. But not everyone in London is better off. Individuals outside the labour market may be worse off due to rising housing costs. This is one of the reasons why deprivation measures can be high in London.

Rising housing costs may also lead to worse outcomes for those workers whose wages are not very responsive to local economic conditions (such as the low skilled, and nurses and teachers whose wages are set nationally). This effect is partly responsible for the arguments about affordability issues for ‘key’ workers.

Similar patterns also play out in other UK cities (such as Bristol and Manchester) that have recently seen faster growth. In cities that are doing less well, this story of winners and loser is also repeated. Individuals who are able to move away do well. For those who stay, the balance of changing income and housing costs determines who gains and who loses.
Further reading


7. Immigration and the UK Economy

Jonathan Wadsworth
CEP ELECTION ANALYSIS

Immigration and the UK economy

Immigration is once again a key issue in the election campaign. This briefing outlines the current facts on immigration and its effects on the UK, and discusses immigration policy options for the parties in the light of Brexit.

- There are now 9 million individuals (7.4 million adults of working age) in the UK who were born abroad, twice the number of 20 years ago. The number of immigrants from EU countries has tripled from 0.9 million to 3.3 million over the past 20 years.

- Much of the recent falls in net immigration are driven either by a rise in emigration or a fall in the number of Britons returning to the UK - things the government has very little control over.

- Many people worry that immigration may reduce the pay and job prospects of the UK-born since this means more competition for jobs. But immigrants consume goods and services. This will raise overall demand and help create more employment opportunities. Immigrants may have skills that complement those of UK-born workers, which can also raise demand. We need empirical evidence to settle the issue the economic impact of immigration on the UK-born.

- The latest evidence suggests that neither immigration as a whole nor EU immigration has had significantly large negative effects on employment, wages and wage inequality for the UK-born population. Nor, it should be said, have there been large positive effects.

- Immigrants do not take most new jobs. The immigrant share in new jobs is – and always has been – broadly the same as the share of immigrants in the working age population.

- Areas of the UK with large increases in total or EU immigration have not experienced greater falls in either jobs or pay of UK-born workers. The big falls in wages observed after 2008 are more closely associated with the fallout from the global financial crisis than immigration.

- There is little effect of immigration on inequality and the relative pay and job prospects of less skilled UK workers. Changes in wages and joblessness for less educated UK-born workers show little association with changes in immigration.

- Immigrants pay more in taxes than they take out in welfare and use of public services. UK-born individuals, on average, take out more in welfare and benefits than they pay in taxes. So immigrants help to reduce the budget deficit. There is little evidence that immigrants have negative effects on crime, education, health, or social housing.

- The parties go into the election all promising to manage migration. Brexit will force the next government into big but, as yet, unaddressed, decisions about immigration from the EU on how much and what groups to control.
Immigration to the UK: some facts

Immigration to the UK has grown a lot over the last 20 years and a significant fraction of this growth has been from other EU countries, especially after 2004 and the accession of the eight East European countries (‘A8’). There are now around 9 million individuals (and 7.4 million adults of working age) living in the UK who were born abroad. The number of immigrants from EU countries living in the UK has tripled from 0.9 million to 3.3 million over this period.

In the 2016 referendum debate, a major argument of the Leave campaign was that Brexit would allow more control over the flow of immigrants to the UK from the EU. Many people continue to be concerned that high levels of immigration have hurt their jobs, wages and quality of life. Higher immigration has increased overall national income (more workers will generate more GDP) and benefited the immigrants who have come to the UK since, by and large, they are better off than in their country of origin. But has it been harmful to people born in the UK?

Trends in immigration over time

Immigration has undoubtedly increased the UK population a lot over the past 20 years. But this is not an unprecedented rise. Between 1975 and 1990, the UK working age population grew by around 200,000 a year, on average. This was driven not by immigration, but by a rise in the numbers of UK-born, as baby boomers reached maturity. Between 1995 and 2016 the working age population also grew by around 200,000 a year. The majority of this later growth was due to immigration. Nearly 18% of the UK working age population are now immigrants, more than double the share 20 years ago.

Table 1: Immigrants in the UK

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (millions)</th>
<th>UK-born (millions)</th>
<th>Immigrant (millions)</th>
<th>Immigrant share (percentage)</th>
<th>of which EU (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>55.3</td>
<td>52.1</td>
<td>3.2</td>
<td>5.8%</td>
<td>0.9</td>
</tr>
<tr>
<td>1990</td>
<td>56.4</td>
<td>53.0</td>
<td>3.5</td>
<td>6.1%</td>
<td>1.1</td>
</tr>
<tr>
<td>1995</td>
<td>57.2</td>
<td>53.3</td>
<td>3.8</td>
<td>6.7%</td>
<td>1.1</td>
</tr>
<tr>
<td>2016</td>
<td>64.6</td>
<td>55.6</td>
<td>9.0</td>
<td>14.1%</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Table 1: Immigrants in the UK

<table>
<thead>
<tr>
<th>Year</th>
<th>Total (millions)</th>
<th>UK-born (millions)</th>
<th>Immigrant (millions)</th>
<th>Immigrant share (percentage)</th>
<th>of which EU (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>33.6</td>
<td>31.2</td>
<td>2.5</td>
<td>7.3%</td>
<td>0.7</td>
</tr>
<tr>
<td>1990</td>
<td>36.4</td>
<td>33.7</td>
<td>2.7</td>
<td>7.5%</td>
<td>0.8</td>
</tr>
<tr>
<td>1995</td>
<td>36.4</td>
<td>33.4</td>
<td>3.0</td>
<td>8.2%</td>
<td>0.8</td>
</tr>
<tr>
<td>2016</td>
<td>41.0</td>
<td>33.6</td>
<td>7.4</td>
<td>17.9%</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Source: CEP analysis of Labour Force Survey. Working age population is all aged 16-64.

But the UK is not very different from many other OECD countries with regard to its share of immigrants or with regard to the rate of new migrant inflows. The UK is, and has been for some time, a middle ranking country in terms of foreign-born population share (OECD 2016). But according to regular opinion polling, immigration (and Brexit) alongside the NHS continue to be at the forefront of the public’s concerns, (IPSOS/MORI, 2017) so it is important to try and assess the evidence on immigration’s effects in the labour market and in the wider economy.

Who migrates to the UK?
After the A8 countries joined the EU in 2004, immigration to the UK rose significantly, then fell back during the recession from 2008 and resumed thereafter. By 2016, there were around 3.3 million EU immigrants living in the UK, up from 0.9 million in 1995 - a rise to 5.3% of the population from 1.5%. Around 2.5 million of these migrants are aged 16-64 and 2 million are in work. EU countries now account for 35% of all immigrants living in the UK. These populations reflect the changing history and patterns of immigration to the UK over the last 70 years. Poland is now the largest source country of immigrants – at around 940,000 – followed by India (750,000). Lithuania supplies most migrants per head of its own population (180,000 immigrants in the UK or around 6% of Lithuania’s population).

Immigration patterns within the UK
London has long had more immigrants than the rest of the country (see Figure 1, panel 1). Almost 40% of London’s population was born abroad. More than a third (37%) of all migrants to the UK live in London compared with only 11% of UK-born. Under 5% of the population of the North-East (not Tyne and Wear) were born abroad. Migrants from the EU are more evenly distributed across the UK, though again London accounts for the largest fraction of EU migrants.

The pace of change in immigration across areas of the UK is quite different, (see Figure 1, panel 2). Immigration has grown proportionately more in areas with relatively little experience of immigration. It may be that the rate of growth of immigration, even when the numbers of immigrants are low, helps shapes people’s perceptions about the effects of immigration.

Figure 1: Share of immigrants in regional populations, 2016

Source: CEP analysis of Labour Force Survey.

Immigrants are, on average, more educated than the UK-born (see Table 2) – almost twice as many immigrants have some form of higher education (46% compared with 24% UK-born). Only 18% of immigrants left school at 16 compared with 43% of the UK-born.
Table 2: Education attainment and immigrant status (working age population) 2016

<table>
<thead>
<tr>
<th>Age left education</th>
<th>UK-born</th>
<th>EU immigrants</th>
<th>A8 immigrants</th>
<th>All immigrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (21 or older)</td>
<td>24%</td>
<td>45%</td>
<td>38%</td>
<td>46%</td>
</tr>
<tr>
<td>Medium (17-20)</td>
<td>33%</td>
<td>42%</td>
<td>53%</td>
<td>36%</td>
</tr>
<tr>
<td>Low (16 or under)</td>
<td>43%</td>
<td>13%</td>
<td>8%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Notes: The A8 countries are the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia, all of which joined the EU in 2004. Working age population is all aged 16 to 64.
Source: CEP analysis of Labour Force Survey.

Evidence on immigration’s effects: jobs and wages

About 70% of EU immigrants say they come to the UK because of work-related reasons, as opposed to study or joining their families (ONS, 2016). Since immigration increases the total number of people in work or looking for employment, does that mean that UK workers must have been harmed by this increased competition for jobs?

The short answer is ‘no’. There could be some disadvantages from immigration only if the total number of jobs were fixed and then only where immigrants compete for a particular type of job. But since immigrants also consume local services and goods, this increases demand and so raises job prospects for all who produce those goods and services. Another way to think about this is that over the last 100 years, the UK population has grown by around 50% but the unemployment rate has not trended inexorably upward.

But even if there is no reason to think that immigration should increase unemployment, shouldn’t an increase in the supply of workers drive wages down? Not necessarily. Any downward supply effects on wages could be offset by upward pressure on wages from increased demand that a rising population brings. In addition, greater movement of labour allows countries and individuals to specialise in what they are best at, just like increased trade. Firms will change the mix of their products to account for the new skills available to them. Immigrants, especially if they are more skilled, can boost productivity. All these effects will tend to increase wages.

Consequently, the impact of immigration on UK-born workers is an empirical question and not a foregone conclusion. We need to look at data for evidence.

Table 3 shows that EU immigrants are not only more educated, they are also more likely to be in work (78%) than UK-born individuals (72.3%) and less likely to be unemployed or economically inactive. This is particularly true of A8 immigrants: more than 80% of them are in work. Immigrants as a whole are less likely to be in work than the UK–born. This is driven by low levels of labour market participation of women from certain non-EU countries.
### Table 3: Employment, unemployment, students and economic inactivity by immigrant status (working age population) 2016

<table>
<thead>
<tr>
<th>Percentage of whom:</th>
<th>UK-born</th>
<th>EU immigrants</th>
<th>A8</th>
<th>All immigrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>72.3%</td>
<td>78.0%</td>
<td>80.1%</td>
<td>70.7%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>3.3%</td>
<td>3.2%</td>
<td>2.5%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Student</td>
<td>8.3%</td>
<td>6.4%</td>
<td>5.8%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Inactive</td>
<td>16.2%</td>
<td>12.4%</td>
<td>11.6%</td>
<td>17.8%</td>
</tr>
</tbody>
</table>

*Source: CEP analysis of Labour Force Survey.*

Immigrants are typically younger. Among the working age population, the average age of the UK-born is 40, the average western EU immigrant is 38 and the average A8 immigrant is 34.

Education partly determines the occupations and industries in which an individual will work. In addition there are restrictions on sectors and occupations in which non-EU migrants can work. Immigrants make up 17% of the employed workforce. There is a larger than average share of immigrants in professional occupations. But there are also more immigrants than average in processing and elementary occupations (such as cleaning and bar work). This is also higher than might be expected given their qualifications, particularly for EU migrants. According to the Labour Force Survey 45% of the 250,000 working in ‘elementary processing’ (SOC code 913) are immigrants (30% of the workforce is from the EU). Similarly, nearly one third of science professionals (SOC code 211) are immigrants. Sectors that employ these workers will be most under pressure from any attempts to reduce immigration.

This occupational mix of migrants in both high-skilled and less skilled jobs is reflected in the distribution of immigrants across industries. The health, hotel and restaurant sectors employ more migrants than other sectors, particularly A8 migrants. The energy, agriculture and public administration sectors employ relatively fewer migrant workers (see Table 4). Graduates from the EU account for most EU workers in finance, science and information technology (around 5% of those sectors’ workforces). Non-graduates comprise the majority of the EU workforce in the manufacturing and hotel sectors (around 7 and 10% respectively).
Table 4: Occupational distribution of immigrants and UK-born, 2016

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percentage of UK-born</th>
<th>Percentage of immigrants</th>
<th>Percentage of EU immigrants</th>
<th>Percentage of occupation who are immigrants</th>
<th>Percentage of occupation who are EU immigrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial</td>
<td>11.0%</td>
<td>9.4%</td>
<td>6.9%</td>
<td>15.0%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Professional</td>
<td>20.0%</td>
<td>22.9%</td>
<td>18.2%</td>
<td>19.2%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Assistant professional</td>
<td>14.4%</td>
<td>11.6%</td>
<td>10.9%</td>
<td>14.3%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Administrative</td>
<td>10.9%</td>
<td>7.2%</td>
<td>6.5%</td>
<td>11.9%</td>
<td>4.6%</td>
</tr>
<tr>
<td>Skilled trades</td>
<td>11.1%</td>
<td>9.3%</td>
<td>12.2%</td>
<td>14.7%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Personal service</td>
<td>9.3%</td>
<td>8.8%</td>
<td>7.8%</td>
<td>16.4%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Sales</td>
<td>8.1%</td>
<td>6.2%</td>
<td>5.6%</td>
<td>13.7%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Processing</td>
<td>5.8%</td>
<td>9.1%</td>
<td>11.0%</td>
<td>24.5%</td>
<td>12.7%</td>
</tr>
<tr>
<td>Elementary</td>
<td>9.5%</td>
<td>15.7%</td>
<td>20.9%</td>
<td>25.5%</td>
<td>14.5%</td>
</tr>
</tbody>
</table>

Source: Labour Force Survey.

There is a huge amount of research examining the effect of immigration on jobs and wages (summarised in Wadsworth, 2015; Portes, 2016a, 2016b; Centre for European Reform, 2016; and Dustmann et al, 2005, among others). The conclusion of this research is that the large increase in immigration in the UK has not significantly harmed the job and wage prospects of UK-born workers. Most of this work, however, was conducted prior to the global financial crisis and the Eurozone crisis. So it is reasonable to ask whether these findings have changed after the most severe economic downturn for 80 years and a continued rise in immigration.

**Immigrants and new jobs**

It is sometimes said – wrongly - that immigrants are taking a majority of all the new jobs generated. This is based on a misinterpretation of net changes in aggregate employment data (which is the difference between all jobs created and all jobs lost in any year). Immigrants in recent years have accounted for the majority of the net change in employment. Net employment grew by around 500,000 in 2016 and immigrant employment by around 300,000 – but this net change is the difference between, approximately, 4 million new jobs being created and 3.5 million jobs being lost.

When the immigrant working age population is rising faster than that of other groups, the number of immigrants in work will tend to grow faster (just as the numbers of women or people with freckles in work would grow if their respective populations increased and that of others stayed static). To look at who gets new jobs we need to look at evidence on hiring.

Figure 2 shows that the actual immigrant share in new jobs (the share of immigrants in jobs that are three months old or less) is – and always has been – broadly the same as the share of immigrants in the working age population. (It is a little higher partly because immigrants tend to be younger and job turnover is higher among the young). So immigrants account for around one in five of all new hires.
Is immigration correlated with changes in joblessness and wages?

The fact that immigrants are more educated would suggest that, if anything, they put downward pressure on the wages of higher wage people, thus reducing inequality. But there is concern that less skilled workers are hurt if educated immigrants are willing to accept low paying jobs (Migration Advisory Committee, 2014). A third of EU nationals are in the relatively low skilled ‘elementary and processing occupations’ compared with 15% of the UK-born in work. Given that immigrants are more highly educated, this may be because they are not using their skills fully. But it may also reflect the fact that they are younger and so less likely to be in more senior managerial and professional roles.

The most straightforward way to investigate this issue is to examine whether areas of the UK that have had larger influxes of immigrants have also had worse job and wage outcomes for the UK-born relative to other areas. Looking at the change over time controls for lots of other features of the local labour market that could also explain unemployment and wages in those areas.²

Figure 3 graphs changes in the unemployment rates of the UK-born across local areas against changes in immigration between 2008 and 2016 (one dot for each of 69 counties). The solid red line summarises the relationship between immigration and UK-born unemployment rates. If immigration increased unemployment, we would expect a strong upward sloping line: more immigrants would mean more unemployment for local workers. It is clear from the graph that there is no positive relationship between immigration and unemployment rates of those born in the UK. If anything, the relationship is negative, suggesting areas with more immigration experienced larger falls in unemployment for the UK-born over this period.

² The analysis in this section uses immigration but if done using EU immigration the results are essentially the same. Results available on request.
So why do some people think immigration has hurt jobs? Look at two areas – dots A and B in Figure 2. Both have had increases in the immigrant share well above the national average for this period. In area A unemployment for the UK-born has risen by over 1 percentage point, which is also above the national average. So in area A it feels like immigrants are bad for jobs. But area B has had a similar increase in immigration, while unemployment here has fallen by 2 percentage points. Therefore, just because immigration and unemployment both go up in an area does not mean that immigration is the reason for rising unemployment, since it is quite easy to find areas where immigration went up and unemployment fell. Something else must underlie the prospects of UK-born individuals in areas with rising unemployment.

Figure 4 provides the same analysis of the impact of immigration on pay. Again, there is no apparent link between changes in the real wages of UK nationals and changes in immigration. Wages of UK-born workers changed at much the same rate in areas with high immigration as in areas where the change in immigration was low.
To see if employment and wage prospects for less skilled UK nationals are associated with immigration, Figure 5 looks at the change in the NEET rate (‘not in education, employment or training’) for low skilled UK-born, defined as those who left school at the minimum leaving age or younger. There is again no effect of immigration on their job prospects.

One group that does seem to lose out from new immigration is the stock of other recent arrivals (Manacorda et al, 2011). So although there is no negative effect on UK-born workers, there might be some depressing effects on other immigrants who settled in the UK a few years back.
There are studies that do find negative wage effects of immigration (notably Dustmann et al, 2013; and Nickell and Saleheen, 2015, for the UK). However these effects are very small (in the order of 1% lower wages). Taking the evidence as a whole, it is hard to conclude that immigration effects in the UK are anything other than very small either way.

The impact of EU immigration on public finances and public services

An important part of the immigration debate is its fiscal impact on the public finances. Do immigrants pay their way? For any immigrant who arrives as an adult, public expenditure will be lower since UK taxpayers have not had to finance their schooling and healthcare costs as they would do for a UK-born individual. Second, immigrants are younger, more likely to work and less likely to be on benefits. While immigrants, like UK nationals, would not be eligible for contributory-related benefits until they have worked full-time for two years, they could be eligible for means-tested benefits should they apply. HMRC estimates that around 6% of tax credit claims are from households that include an EU national in line with the share of EU nationals in the UK (House of Commons, 2014).

Dustmann and Frattini (2014) find that EU immigrants made a positive fiscal contribution. They paid more in taxes than they received in welfare payments. A8 immigrants paid in about £15 billion more than they took out in public spending in the decade up to 2011. The central estimate of the Office for Budget Responsibility (2013) is that the UK’s national debt will be 40 percentage points higher in 2062 if net immigration is reduced to zero from 140,000 per year. By contrast, UK nationals, as a whole, received more in benefits than they paid in taxes, much the same as non-EU immigrants. A recent study by HMRC (2016) finds that new arrivals from the EEA are net fiscal contributors.

Given that EU immigrants are making net contributions, there is no reason to think that they should crowd out public services. Their extra fiscal contributions could be used to increase spending on local health and education for the UK-born. In other words, reducing EU immigration could generate the need for continued austerity. This would magnify the need for cutbacks caused by the slower growth of the economy due to reduced trade and investment from falling immigration identified by Dhingra et al (2016a, 2016b).

If immigrants cause social disruption, we would expect this to be reflected in crime rates. Bell et al (2013) find no effect of the big 2004 increase in immigration from A8 countries on crime. Geay et al (2013) find no effect of immigration on aspects of educational attainment and actually some positive effect from Polish children on UK-born pupils: the disadvantage in having English as a second language seems to be outweighed by a stronger immigrant push to work hard at school. Wadsworth (2013) finds no greater usage of doctors and hospitals by immigrants relative to the UK-born; and Giuntella et al (2015) find little effect on NHS waiting times. These studies do not distinguish between EU and non-EU immigrants, but since EU immigrants are younger than non-EU immigrants, they are less likely to use health services, and the results are likely to be stronger.

There is a general perception that immigrants are given better treatment when applying for social housing. Battiston et al (2013) show that controlling for demographic, economic and regional circumstances, immigrant households are less likely to be in social housing than their UK-born counterparts. Lack of access to social housing has more to do with the falling supply of social housing.
One area where we may be concerned is the effect of immigration on house prices. The UK’s record of building insufficient houses does mean that the population increase generated by immigrants adds to housing pressure. But the failure to create enough housing supply would be a problem even in the absence of EU immigration. It is rooted in the failure of the UK planning system to make appropriate infrastructure decisions more generally (LSE Growth Commission, 2013; Hilber, 2015). The empirical evidence does not find positive effects of immigration on local house prices (Sa, 2015).

Another argument made in favour for Brexit is that the big increases in the minimum wage (the National Living Wage) planned over the next four years will draw in many more EU immigrants.³ It is unclear how big a draw this could be since it depends, in part, on what other countries do with their own minimum wages and on the relative cost of living in each country. The Office for Budget Responsibility, (2015), predicts an increase in unemployment of 60,000 which would also be concentrated among the less skilled.

**Productivity and immigration**

Migration acts much like trade in capital, as people tend to move to countries where they can be more productive and earn higher incomes. This increases welfare through greater efficiency in labour allocation across the world. Immigrants also fill the gaps in the skill composition of the national workforce. This fosters specialisation, increases productivity and raises the wages of national workers with complementary skills.

There is a consensus on immigration’s positive effects on trade and foreign direct investment. But there is less of a consensus on the effect of immigration on productivity. There is strong evidence of positive effects for more educated immigrants (for example, Ottaviano et al, 2016, for UK service productivity; and Ortega and Peri, 2014). Indeed, most studies show insignificant or positive effects of overall immigration.⁴ For example, Felbermayr et al (2010) concludes that a 10% increase in the immigrant stock leads to a per capita income gain of 2.2%.

Recent work by Boubtane et al (2015, Table 3) finds that a 50% decrease in the net immigration rate would reduce UK productivity growth by 0.32% per annum. Since EU immigration is half of the current UK total (see Figure 1), cutting EU immigrants to 80,000 per year is likely to shave 0.16% off productivity growth. So about a decade after Brexit, UK GDP per capita will be about 1.6% lower than it would have otherwise been.

Supporters of Brexit argue that economic benefits would flow from bringing EU immigration under the same rules as non-EU immigrants. Boubtane et al (2015) look at how improving the average skill level of immigrants could increase productivity. To offset the productivity loss from halving EU net immigration, the UK immigration system would have to improve the relative education levels of EU immigrants by about a quarter. Since EU immigrants are already significantly better educated than the UK-born, this may be hard to achieve.

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Immigration and the 2017 election: will EU immigration really be restricted after Brexit?

The parties have made few specific manifesto pledges about immigration this time around. Labour and the Liberal Democrats are promising a new ‘fair’ managed migration system and both aim to take students out of the official immigration counts. Only the Conservatives have pledged to get annual net immigration numbers below 100,000 including students. In addition, if elected, they will raise the forthcoming immigration levy on firms hiring immigrants to £2000 a year for each migrant hire (for up to five years at the firm), raise the income threshold at which dependents are allowed to join a UK resident and tighten visa regulations and post-study work options for students.

Net immigration targets (the difference between who comes in and who goes out) are by definition very difficult to control, since government can, at best, only control who comes in and not who leaves.

Net migration has fallen over the last year. The irony is – as Figure 6 shows – that much of this has been driven by either by a rise in emigration out of the UK by EU (mainly A8) citizens, or by a fall in the number of Britons returning to the UK, factors over which the government has little control.

Figure 6 second panel shows how the net flows have changed for EU and non-EU immigrants. Until last year, immigration from the EU had been growing faster than immigration from elsewhere. Now net immigration from the EU has fallen back. In the year to December 2016, net EU immigration was around 133,000, comprising 250,000 EU nationals arriving and 117,000 leaving. Net immigration for non-EU nationals 175,000.5

Figure 6: Net immigration to the UK, 1991-2016

If governments can only really control inflows what type of inflows might be targeted if an incoming government were inclined to try to reduce net immigration significantly further?

5 The total net migration count is reduced by net emigration of around 50,000 UK nationals (in 2016)
At present, only work visas issued to non-EU nationals are restricted. If the UK leaves the EU and also the European Free Trade Area (EFTA) and the European Economic Area (EEA), as seems likely, then it could restrict EU immigration in much the same way as non-EU immigration is restricted.\(^6\)

If EU immigration were cut following Brexit, then something like the current visa scheme that applies to non-EU immigrants would have to be adopted to accommodate immigration from the EU. Current rules effectively exclude non-EU immigration from all but graduate jobs and limit numbers arriving on work visas each year to around 55,000, (5,000 in ‘Tier 1’ and 50,000 in ‘Tier 2’) plus any dependents.\(^7\) This would mean decisions would have to be taken on whether or not to expand the current work-related quotas to accommodate some additional flows from the EU and which skill groups to allow.

As Figure 7 shows, work related flows dominate EU inflows from the EU. It is likely then that after Brexit, both skilled and particularly less skilled EU immigration would be cut and there is little prospect of non-EU skilled immigration being expanded.

Restrictions on family migration are less likely to be effective in reducing immigration much, since many dependants now accompany individuals on skilled work visas and therefore would be likely to be above any income thresholds of the main earner. Any immigration levy would raise the costs of employing migrant workers and so may reduce demand for migrants if employers are unable to pass on higher labour costs in the form of higher prices, (Migration Advisory Committee, 2016). It should also encourage firms, or the government if it channels the revenues from the levy, to invest more in training the domestic workforce.

Would work-related quotas on EU migrants get immigration flows below the ‘tens of thousands’? Almost certainly not. Net inflows from outside the EU are themselves well above this notional 100,000 target. So in the unlikely event that EU immigration fell to zero the 100,000 target would be breached without further restrictions on non-EU migrants. Figure 7 shows that most non-EU inflows are students. So large restrictions would have to apply to students and/or EU citizens with a job offer to get anywhere near a 100,000 target.

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\(^6\) Membership of EFTA and/or the EEA oblige member countries to accept freedom of movement, as in Norway or Switzerland.

\(^7\) See https://www.gov.uk/government/publications/immigration-statistics-october-to-december-2015/work. In addition to the 55,000 work visas, there were an additional 38,000 dependents. The total for Tier 2 includes a quota of 20,700 work visas with the rest made up of short-term Inter Company Transfer visas.
**Conclusion**

It is very difficult to find much evidence that immigration has had a negative effect on many sectors of the economy. Any adverse experiences of UK-born workers with regard to jobs and wages are much more closely associated with the biggest economic crash for more than 80 years. But, it should be said, neither is there much evidence of large positive effects of immigration. So on the evidence on its economic costs (or benefits) it is hard to make a case that immigration should be a big feature of this election. But it almost certainly is.

It should be impossible to discuss immigration in the election without thinking about what will happen as Brexit looms. Yet none of the parties has outlined a clear view of how to deal with the consequences of ending free movement of labour from the EU.

Net immigration seems to have fallen over the past year, but for reasons the government has very little control over, increased emigration and a fall in numbers of Britons returning to the UK. This underlines how difficult it is to target a net immigration count.

At the national level, any falls in EU immigration are likely to lead to lower living standards for the UK-born. This is partly because immigrants help to reduce the deficit: they are more likely to work and pay tax and they are less likely to use public services as they are younger and better educated than the UK-born. It is also partly due to the positive effects of EU immigrants on productivity.

There is a wide consensus that trade and foreign investment will also fall after Brexit, both of which would reduce UK incomes. Lower immigration is a third channel that will push UK living standards lower. How large any fall would be depends on by how much immigration will fall. This, of course, is unknown.

**May 2017**

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8 Jonathan Wadsworth is professor of economics at Royal Holloway College University of London and a senior research fellow at the LSE’s Centre for Economic Performance. He was a member of the Home Office’s Migration Advisory Committee from 2007 to 2016.
Further reading


HMRC (2016), ‘Statistics on recently arrived non-UK EEA nationals subject to income tax and National Insurance contributions or receiving HMRC administered benefits’, HMRC. 

(http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN06955).


LTIMS (2017), ‘Provisional Long-Term International Migration Estimates’, February, ONS.


Migration Advisory Committee (2014), ‘Migrants in Low Skilled Work’. 

Migration Advisory Committee (2016), ‘Review of Tier 2: Balancing Migrant selectivity, investment in skills and impacts on productivity’. 


Annex: data sources and definitions

Labour Force Survey (LFS)
Most of this report is based on CEP analysis of the latest individual-level data from Labour Force Survey (LFS). The LFS is the best data source to use covering a representative sample of individuals living in the UK. For example, in 2016, it includes about 90,000 people. The analysis in Figures 3-5 uses the Annual Population Survey (APS) which is based on pooling the LFS quarterly panel over about a year. It has about 350,000 observations a year for the working age population. In the regression lines we weight by the sample population to correct the standard errors for small areas.

With the LFS, it is possible to separate out who is a UK-born individual from those who are EU nationals. This enables us to examine not just the reported trends in the labour market but also to break this down into the UK-born and immigrants.

Definitions of immigrant status
The LFS asks people whether they were born in the UK and (except where noted otherwise) this forms the basis of our outcomes for the UK-born. For EU immigrants, we use the information on whether someone responded in the LFS that that they were a (non-UK) citizen of the EU. We use EU ‘nationals’ rather than EU-born because any post-Brexit policy would be to restrict people from entering the UK based on their citizenship rather than where they were born. But the results are similar using whether individuals were born in the EU as an immigrant measure rather than an ‘EU national’, so nothing much hinges on this.
8. Brexit as Climate Policy: The Agenda on Energy and the Environment

Ralf Martin
Brexit as Climate Policy:
The Agenda on Energy and the Environment

- All parties acknowledge that climate change is a bad thing and needs to be addressed. They all also acknowledge that high energy prices are an issue for UK households and businesses.

- The Conservatives offer little policy detail apart from vowing to support shale gas, a technology that the other parties would ban outright.

- Labour wants to part-nationalise the energy sector. This is based on the idea that high energy prices are the consequence of unfair practices by energy retailers and suppliers, but there is not much evidence for that claim.

- Lighter touch regulation seems more appropriate in this area along with directly targeted support of the ‘fuel poor’, proposals that feature in both the Labour and Liberal Democrat manifestos.

- Further integration with European energy markets is also a sensible strategy to keep power prices lower in the UK. But only the Liberal Democrats are sensitive to this issue and its delicateness in the context of Brexit.

- All parties express support for the legally binding climate targets that the UK has set itself. To some extent, this is ‘cheap talk’ as the targets have been generously met so far. But this was primarily due to a weak economy. It is not clear that the targets will be so easily met in the future – unless the worst-case scenarios for the damage caused to UK GDP by Brexit are realised.

- The parties offer no detail about how climate policy could be tightened in the future to ensure that the targets are met. Moreover, Brexit could lead to a vacuum in climate policy-making as the UK would be likely to leave the European Union’s emissions trading system (ETS), which currently regulates nearly half of emissions.

- More attention should also be given to how the UK’s dismal performance in clean innovation could be improved. Because of higher knowledge spillovers in this area, such a strategy could also help to improve economic growth.

- Promising a carbon price of at least £50 per tonne of carbon along with a spending target for clean research and development (R&D) could provide a useful addition to the policies offered in the manifestos.
What do the manifestos say?

Once upon a time – not so long ago – the UK’s political parties were barely distinguishable when it came to energy and climate policies. Not anymore: while similarities remain, the manifestos offer some stark differences in their treatment of this policy area.

Let’s start with the similarities: all the parties that had MPs at the end of the last parliament say that addressing climate change is important. They also confirm their commitment to both the UK Carbon Budgets as well as the United Nations climate change process and its latest agreement, made in Paris, setting out voluntary emissions reduction targets among other things. Indeed, it fell into Theresa May’s short pre-election term of office as PM to ratify the Paris Agreement last November.

All the manifestos also express some concern about high energy prices. In the case of the Conservatives, this is primarily in reference to the competitiveness of industry relative to other European countries. The other parties are more concerned about high energy prices for poor households.

But there is a striking difference in the level of detail and concreteness this policy area receives in the different manifestos. The Conservative manifesto mentions climate change about four times and two of those are merely to express that the UK should be a world leader when it comes to climate change, without specifying exactly what this entails. The Labour and Liberal Democrat manifestos mention climate change ten and nine times respectively and provide more policy detail.

In terms of concrete policy measures, the Conservative manifesto confines itself to precisely three things: first, support for shale gas development, including easing of existing regulations; second, opposition to onshore wind farms; and third, an independent review into what is going on with fuel prices coupled with a statement to ‘possibly’ have some form of cap on fuel prices for certain poorer households.

In stark contrast, both Labour and the Liberal Democrats oppose shale gas development categorically. They also support the development of tidal power and mention carbon capture and storage as something they want to promote.

Perhaps the most revolutionary proposal in this area comes from Labour, which proposes to renationalise the energy sector at least partially. The idea is that publicly owned energy companies operate alongside private ones, offering customers a fairer deal.

On the same issue of potentially high and unfair pricing for households, the Liberal Democrats propose to ensure that there are no undue barriers for market entry in the electricity sector.

To deal with so-called ‘fuel poverty’ arising from high fuel prices, both Labour and the Liberal Democrats provide a number of further specific proposals. Labour wants to introduce a £1,000 cost cap for ‘the average dual fuel household’. Labour also promises interest-free loans to make homes more energy efficient.

Both Labour and the Liberal Democrats recognise that tariff and barrier free access to European energy markets is an important avenue to keep energy costs down in the UK and promise to make sure that such access is continued and deepened after Brexit. Along with the Liberal
Democrats, Labour also promises insulation retrofits for four million homes within the next parliament.

Finally, the Liberal Democrats add some tightening of various energy and climate-related targets, including:

- Reducing greenhouse gas emissions to zero by 2050 (current legislation requires an 80% reduction).
- A zero-carbon standard for new homes.
- A target to have all homes on at least current level C in terms of energy efficiency by 2035.
- A target of having 60% of energy from renewables by 2030. A key measure to achieve this would be to re-establish support for micro-generation that was cut by the Conservative government at the end of 2015.

The Liberal Democrats are also calling for a dedicated public investment bank for investments in housing and infrastructure to promote – among other things – a transition to a cleaner economy.

**Targets**

All parties say they are committed to UK Carbon Budgets. How is the UK doing in that respect? Figure 1 shows actual and projected greenhouse gas (GHG) emissions, GDP and GHG intensity (that is, GHG over GDP) all relative to 1990 levels. The blue lines show the various Carbon Budgets as specified by the Committee on Climate Change. At present, the UK is comfortably on target, requiring an emissions reduction of 35% (relative to 1990) by 2020. Indeed, in 2016 emissions already implied a 38% reduction.

But is the country on track to meet targets going further? To answer this, it is instructive to note that the main reason that the UK is so comfortably within its Carbon Budgets is the Great Recession after 2008. Yes, emissions reduced somewhat because of reductions in carbon intensity (on average by 4% per year) but the UK would not have met its targets if GDP had continued on its pre-2008 growth path as illustrated by the grey dashed line.

Equally, in going further, much will depend on what happens to GDP. Although this seems increasingly unlikely, if the UK should somehow catch up to its pre-crisis growth path, it is likely to miss the carbon targets without any further policies that can lead to faster carbon intensity improvements. Indeed, even if there is no catch-up at all and the economy continues on its current path (pink), it is likely that the targets will be missed between 2020 and 2030.

The only way the targets might be met is if the Brexit effect on growth is sufficiently hard. The orange lines in Figure 1 show what happens if Brexit depresses UK growth to an extent that GDP is 8% lower (corresponding to the mid-point in the range of scenarios of the original CEP Brexit analysis). Hence, any party aiming – or hoping – for milder Brexit effects should also be thinking seriously about policies to make climate policy more stringent, if they indeed are committed to the Carbon Budget targets.

Remarkably, there is little such discussion in the manifestos. How is the UK going to meet those targets? By having higher carbon taxes (for example, a higher Climate Change Levy with
fewer exemptions)? By having higher implied subsidies for renewables via the Contracts for Difference Scheme?

The lack of a concrete discussion of climate policy is even more baffling in the context of Brexit: nearly half of carbon emissions are regulated via the European Union’s emissions trading system (EU ETS). What are the parties planning? To remain in the EU ETS? To leave it and replace it with something else?

![Figure 1: GHG emissions and projections](image)

**Figure 1: GHG emissions and projections**

**Prices**

All parties also express concern over energy prices. Figure 2 shows how UK energy prices have been developing in recent years.

There has been a price increase of about 100% in the last 10 years or so. So it is not surprising that some people are concerned about energy prices. That said, UK prices are not particularly high by international comparison (particularly relative to Europe) nor has the recent price increase been more dramatic here than elsewhere.

In other words, what the UK is experiencing is primarily due to global developments in fuel prices rather than any deviant behaviour of UK energy companies. It is therefore unlikely that public ownership – as proposed by Labour – or across the board price caps could lead to a more sensible situation.

Moreover, even if there was some element of market power behind high prices it is not clear why such issues could not be addressed by the usual mechanism for dealing with that – the
Competition and Markets Authority (CMA). Indeed, only recently the CMA looked at energy markets in detail, concluding that there were only minor issues that needed addressing. But of course for struggling families, it is presumably of little comfort that they are not struggling because of the market power of power companies. Hence, direct targeted subsidies for energy efficiency improvements, as proposed by both Labour and the Liberal Democrats, and targeted price caps as proposed by the Conservatives.

A ‘low hanging fruit’ to ensure cheaper power prices in the UK would come from better integration with European power markets. The potential gains from integration would improve even further as larger amounts of power are generated from sometimes intermittent renewable sources. Of course, Brexit is potentially a major obstacle in realising those gains. The Liberal Democrat manifesto shows some sensitivity to this by promising to make sure that the UK has the closest integration into the European markets irrespective of Brexit.

**Figure 2: Electricity prices – UK vs OECD**

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Leadership

The Conservative manifesto is characteristically obsessed with UK leadership in climate change of course without spelling out what that exactly could mean. Let’s look at some things it could mean.

Figure 3 reports per capita emissions as well as emissions intensity (carbon emissions over GDP). On both counts, the UK is doing much better than the United States or Japan say. But relative to other European countries, the UK is only average. Things look better at first in terms of per capita growth of emissions. The UK reduced its per capita emissions by more than any other advanced country in recent years. But these are the emissions that directly originate from the UK.

Many have argued that a fairer way to look at emissions should include emissions due to the products that a country consumes. In other words, it can hardly be considered a success if emissions only reduce because production of emissions-intensive goods shifts abroad.

Figure 4 reports both production and consumption emissions for selected countries. What is striking is that the UK’s consumption emissions have by and large been constant for the last 20 years or so. What’s more, the gap between production and consumption emissions is particularly large for the UK. This would suggest that the leadership role of the UK in emissions
reductions is more by coincidence rather than by design: the UK’s comparative advantage is primarily in less energy-intensive services. As a consequence of this, the decline of the manufacturing sector is more pronounced than in other comparable economies. This has helped UK production to ‘decarbonise’ but has not reduced UK consumption.¹

**Figure 3: Per capita emissions and growth of per capita emissions**

**Figure 4: Production versus consumption emissions**

Notes: Solid lines are production emissions, dashed lines are consumption emissions. The data are updated from Peters et al, 2011. For an explanation of the issues around consumption emissions, see Peters et al, 2012. Source: Global Carbon Budget 2014.

¹ Indeed, closer inspection suggests that changes in the UK’s manufacturing share in GDP can account for as much as 60% of changes in emissions.
Another important area for leadership could be clean innovation. This is important for two reasons. First, climate change is global. Progress in the UK alone – however strong – has very little impact on the actual climate. But this is different if the UK develops new technology that will make clean options cheaper to adopt.

Second, CEP research suggests that developing new clean technologies can potentially have positive effects on growth – rather than just increasing costs through regulation and putting a price on carbon. This is due to seemingly larger knowledge spillovers in clean technologies. Hence, this provides a win-win argument for countries with leadership ambitions in this area.

But things don’t look good in that respect for the UK. It lags behind most major economies in terms of innovation in clean technologies (see Figure 5). This likely due to a less stringent support for deployment as well as research and development (R&D) in renewable technologies (see Figures 6 and 7).

Figure 5: Low carbon innovation compared
Conclusion

All parties express concern for climate change as well as high energy prices. In the case of the Conservatives, this concern is backed up by little policy detail – apart from vowing to offer special support for fracking and shale gas while the other parties want to ban this technology altogether.

Labour and the Liberal Democrats offer more detail, including some fairly radical proposals such as a part renationalisation of the energy sector by Labour.

This could be indicative of how seriously the different parties will take the energy and climate agenda after the election. Conservative threats to create some kind of tax haven economy certainly wouldn’t sit very well with a strong focus on climate.
But all the parties’ manifestos raise more questions than answers. So far, the UK has met its climate change obligations probably more by (bad) luck rather than design. The Great Recession and a sluggish economic recovery were instrumental in meeting the climate change targets set by the Climate Change Committee.

Without more drastic policy interventions, it is unlikely that the targets will be met – unless the more extreme forecasts for the impact of Brexit on economic activity materialise. But none of the parties offers much clarity on how climate policy could or should be strengthened.

Moreover, most Brexit scenarios would see the UK exiting the EU ETS, which is a key instrument of climate policy all over Europe, including the UK. No party seems to offer any suggestions as to what would come instead.

Finally, little comment is provided on how the UK could improve its relative weakness in clean innovation. This would not only be a sensible strategy to affect emissions beyond the UK’s borders. It could also form part of a strategy to improve sluggish UK growth and productivity. It would seem imperative for the UK to increase its public R&D spending in this area. This could be financed by increasing carbon prices (for example, via the Climate Change Levy) as well as removing commonplace exemptions from carbon pricing (see Martin et al, 2014).

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Further reading


