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Executive Summary

This is our first dedicated Living Standards Outlook, exploring in detail what the next five years may hold in store for household incomes and inequalities. This was previously one of the functions of our annual Living Standards Audit, which it now sits alongside and which will in future concentrate on looking back at the important trends of recent years and decades.

This is a paper about what may happen. But it has strong foundations. First, although the latest detailed data about household incomes relates to 2015-16, we know a lot about what has happened to the key drivers of living standards in 2016-17 and the current financial year, 2017-18. Second, government policy is a key driver of future living standards and on many key areas, like taxes and benefits, it is already known. Third, where possible we make use of official forecasts from the Office for Budget Responsibility (OBR) produced in November 2017. While these will inevitably prove wrong one way or the other, and we might expect its March 2018 update to be more favourable, the OBR is near to the consensus view of economic forecasters.

Whereas the OBR forecasts economic aggregates like GDP, average earnings or the total income of the household sector, this paper is concerned with a more in depth look at the real spending power of typical households and of the distribution of income.

The drivers of living standards improvements

To understand the prospects for household incomes and inequalities – with a focus on non-pensioner incomes[1] – we first look at expectations for the various drivers of living standards improvements:

- The last decade has been the weakest for average earnings in two centuries after adjusting for inflation. This is the product of a combination of disappointing nominal pay growth and above-target inflation. On nominal pay, whereas 4 per cent growth was normal before the financial crisis, average earnings growth has remained below 3 per cent since January 2009 and in

[1] For long-term forecasts of retirement income adequacy, see D Finch & L Gardiner, As good as it gets? The adequacy of retirement income for current and future generations of pensioners, Resolution Foundation, November 2017
the OBR forecast remains so until 2021. This relates to the OBR’s downgraded forecast for productivity, which has barely grown over the past decade. On inflation, CPI spiked both from 2008-09 (following a post-crisis devaluation of sterling) and 2017-18 (following devaluation associated with the vote to leave the EU). Changing global prices, particularly the cost of oil, have also extended these periods of high inflation. Given weak growth and a weak outlook, there seems little prospect of average real pay catching up to its pre-crisis peak until the 2020s. For some, such as public sector workers, this prospect seems particularly far from reach. It should be noted however, that the lowest paid have fared better, thanks in no small part to the National Living Wage (NLW). Indeed, inequality in earnings has fallen significantly and we assume it continues to do so until 2020-21.

» The 16+ employment rate now stands at almost its highest in decades, and unemployment near its lowest. However, recent data has shown little in the way of further change and the OBR forecasts a plateauing and then slow decline of the employment rate. In part, this relates to a forecast small rise in unemployment, as the current rate of 4.4 per cent is assumed to be slightly below what is sustainable. But there are also downward demographic pressures on the proportion of the population that wants to work. A rising state pension age (for women, so far) has kept up the ratio of workers to non-workers, but the UK’s population is ageing nonetheless. This will act as a headwind for future 16+ employment rate increases, which could be exacerbated by lower net migration. As noted in previous work, however, many regions still have a lot of scope for higher employment rates, as do particular disadvantaged groups within them – though great progress has been made.

» Like employment, between 2010 and 2015 average hours for those in work increased (in contrast to the longer-term decline in average hours). But again this income boost is expected to have run its course with more workers overall now wanting to reduce their hours than to work more.

» Cuts to working-age benefits are a large headwind to income growth and driver of inequality. Freezes and other restrictions on benefit uprating mean that key benefits will be less valuable in 2020 than in the 1980s. Measured relative to average earnings, Child Benefit, for example, is already less generous than at any point since its full introduction in 1979 for families with two children or more. In addition to uprating policies, families are set to lose out from large
cuts for new claimants. The roll-out of Universal Credit is also gathering pace. This new system will have mixed impacts, but cuts to its ‘work allowances’ mean it is now set to be less generous overall than the benefits it will replace over the years to 2022-23. Higher take-up associated with the merging of six benefits into one is expected to be one welcome upside however.

» Relatively little is forecast to change in terms of direct taxes. However, the government has promised further income tax cuts – not included in our projections – which would give basic rate taxpayers a boost of around £28 a year and higher rate payers over £360. In contrast, income tax rates are likely to rise slightly for higher earners in Scotland from April 2018.

» Housing costs are harder to forecast, but whereas changes in mortgage interest costs have been a boon for homeowner income growth in recent years, this is unlikely to continue. With the Bank Rate forecast to rise, mortgage payments may soon be rising faster than earnings, though from a low base after years of cheap borrowing. In contrast, private rents are expected to more consistently rise in line with average earnings.

» Finally, pensions auto-enrolment has successfully boosted the number of pension savers and in April 2018 and April 2019 minimum contribution rates will rise. This is good news for future pension incomes, but does lower disposable incomes in the here and now. This report models these effects for the first time, showing significant pressures on income growth for middle-income working-age households in 2018-19 and 2019-20.

**Typical incomes have stagnated in 2017-18, with weak growth forecast for the next five years**

Putting all these factors together, we model the outlook for inflation-adjusted disposable household incomes in each year up to 2022-23. Our base for this is the latest available government survey data (2015-16). For the years 2016-17 and 2017-18 we are able to make use of some outturn data to produce an informed ‘nowcast’; whereas for future years we rely on a range of OBR forecasts together with other assumptions and bespoke modelling.

Although the year is not quite over, we estimate that 2017-18 has been a rough year for living standards improvements, with zero growth in the typical household income. Other than the impacts of recessions, few years are on record as delivering such poor growth.
Fortunately, the worst may be behind us as inflation falls. But a slow recovery is projected to take income growth to only 1.3 per cent by 2022-23 – well below the pre-crisis average of over 2 per cent a year and reflecting the OBR’s weak outlook for productivity and pay.

Within these averages (and shifting to an after housing costs basis to better reflect the distribution of living standards) some groups are likely to fare particularly badly. Given the scale of benefit cuts, families with three children or more; single parents; and families without anyone in work are all projected to be worse off in 2022-23 than in 2015-16. Relatedly, Bangladeshi and Pakistani families are projected to see the largest income falls – in contrast to very strong growth in previous years[2] – though these results should be treated with caution. The weakest regional median income growth between 2015-16 and 2022-23 is forecast for Northern Ireland (2.4 per cent) and Wales (4.8 per cent) – two of the poorest parts of the UK – in comparison to 8 per cent nationally. And although social renters are forecast to do worst – as a result of high levels of benefit income in this group – from 2018-19 the disposable incomes of mortgagors are also projected to rise less quickly than private renters’ as rates rise. This would be a turnaround from recent years in which mortgagors have typically benefited from low interest costs.

The outlook is poor for low income working-age households

Growth is expected to be (and to have been) particularly weak for low income non-pensioner households. Roughly the bottom 40 per cent of the working-age population is expected to face relatively weak or even negative income growth, with higher and relatively equal growth for the rest (though note that growth here is relative to income: in cash terms incomes grow fastest for the richest.) The years 2016-17, 2017-18, 2018-19 and 2019-20 in our projections all involve part of the income distribution becoming worse off than the year before.

This is reflected in the outlook for the ‘low to middle income’ (LMI) group that is the focus of the Resolution Foundation’s work. This population – similar to the ‘just about managing’ families referred to by the Prime Minister – is defined as in-work families (which includes singles) in the bottom half of the non-pensioner income distribution. Previous work has shown that this group has faced a number of challenges, from pre-crisis income slowdowns and

housing pressures to the full impacts of the recession. Our new projections suggest typical LMI income grew little in 2016-17, and will fall or stagnate in each of the three years from 2017-18 to 2019-20. This terrible triennium is driven by all the factors outlined above, and comes despite the National Living Wage. Higher income working-age families (those in the top half of the working-age income distribution) are forecast to have higher income growth in every year.

Over the full decade from 2010-11 to 2020-21, typical LMI income is projected to rise by under £300 (or 2 per cent), compared to £3,100 (10 per cent) for higher income working-age families. These figures compare to £1,500 (11 per cent) and £3,100 (11 per cent) respectively for the previous decade from 2000-01 to 2010-11 – despite the impact of the recession on that period.

We also show that in every year from 2016-17 to 2022-23 the UK is projected to miss its international commitment – through the 2030 Sustainable Development Goals – to deliver higher growth for the poorest 40 per cent of the population than for the population as a whole.

In keeping with the above, inequality is projected to increase over our forecast (though we note that one-off dividend income factors may push down on inequality in forthcoming 2016-17 statistics). On some measures – particularly those most sensitive to the circumstances of low income households, and particularly when the distribution of housing costs is accounted for – inequality is projected to rise to record highs by 2022-23. In contrast to the (huge) inequality rises of the 1980s, however, our forecast does not include widening gaps between top and middle incomes: rather it is a story of the poorest working-age households being left behind. Although not modelled explicitly, the outlook for non-pensioner relative poverty appears all too clearly bleak.

**Beating the outlook**

Of course, economic forecasts are uncertain – particularly in the context of shifting Brexit policy – and government policies can be changed. To explore the sensitivity of our projections to different circumstances, we give four illustrative scenarios that improve the outlook for incomes, inequality or both.
First, we note that **tax and benefit changes** have the potential to alter the distribution of growth even if its overall level remains unchanged. We model one example of a package of tax increases and reversed benefit cuts that would share (relative) income growth across the distribution, with no part seeing growth of less than 1 per cent per year. By design this package would not change the outlook for mean incomes (though we do not model dynamic effects on behaviour), but it would restrain and even reduce inequality.

Second, it is possible that **employment** could beat expectations again (though there has been little further growth recently). We model a continuation of the overall 2015-2017 trend, which would take the 16+ employment rate to a (likely unrealistic) 62.7 per cent in 2022-23. This is equivalent to moving 1.3 million people out of unemployment and non-participation into employment. This (crude) illustration would boost growth in incomes substantially (with typical working-age growth around 40 per cent higher) and would lessen but not fully counteract the projected increase in inequalities.

Third, we look at what would happen if average **pay growth** were to outperform. With currently low expectations (by the OBR), a tight labour market and some signs of a pick-up in nominal pay and productivity growth, this is not implausible. We model nominal incomes rising by around one percentage point extra each year from 2018-19. This would take growth back to the pre-crisis norm of four per cent, and raise pay in 2022-23 by five per cent relative to our central projection. This would boost income growth by 75 per cent over this period. However – holding all else equal – it would only exacerbate the projected inequality rise.

Finally, we explore the potential for positive housing market changes to deliver slower growth in **private rents**. These are assumed to rise in line with average earnings (i.e. faster than other prices), but if they were to rise by only one per cent a year then typical working-age growth would be around a quarter stronger and again lessening but not cancelling out the projected inequality increase.

Of course, in contrast to these positive scenarios the outlook could also worsen (note that our projection assumes falling inflation, progressive wage growth and relatively low unemployment). But it would also be possible for all of these factors – taxes and benefits, employment, wages and housing – to go better than currently expected given the right policies.
Section 1

Introduction

In early 2008, 10 years ago, Northern Rock was in the process of being nationalised. But unemployment was still low, at 5.2 per cent, and average real pay was at its all-time high. In early 2018, it is clear that the last decade as a whole has been a terrible one for improvements in UK living standards. Real pay is still below that 2008 peak, in part due to a wave of post-referendum inflation. But what can kind of growth can we expect from the next five years, and who will benefit from it?

The Office for Budget Responsibility (OBR) produces official forecasts for the economy and public finances, currently up to 2022-23. In this report, we look at what the combination of these macroeconomic forecasts and current tax and benefit policies would imply for the living standards of different groups and for inequality. Given the degree of uncertainty in all forecasts – and especially those related to the UK economy at present – we also consider just how mutable such projections may be and what it would take to significantly improve them.

We first look at the determinants of future living standards.

» Section 2 considers the OBR’s forecasts for wages, productivity and inflation
» Section 3 looks at projections for employment, hours and demographic change
» Section 4 explores planned tax and benefit changes and their roll-out
» Section 5 then looks at other pressures on short-term disposable incomes: housing costs, student loan repayments and pension saving.

Putting all these factors together, we produce our own projections for household disposable incomes.

» Section 6 presents our projections for mean and median household incomes up to 2022-23, including nowcasts of 2016-17 and 2017-18
» Section 7 hones in on the differing outlook by housing tenure, family size, region and more
» Section 8 then shows how different parts of the income distribution may fare
» Section 9 describes what these projections would mean for measures of inequality
» Section 10 explores alternative scenarios that beat the outlook, either through different policies or better economic outcomes
» Section 11 concludes.

For those who’d like more technical detail about our projections, the Annex describes our methodology and assumptions.
Section 2

Wages, productivity and inflation

The last decade has been the weakest for real wage growth in two centuries. First the financial crisis led to large pay falls; then more recently a post-referendum inflation spike has led to a second decline; and now a weak record on nominal pay and productivity has led official forecasters to downgrade the outlook for future years. This section explores this worrying record and outlook, though noting that pay growth recently has been particularly progressive, with earnings inequality expected to continue to fall. The next section then looks at the more positive story of employment growth.

The UK’s pay performance has been remarkably bad

At the start of 2008, average weekly earnings in today’s money were £492. In December 2017 (the latest data) they were only £480. This is likely the weakest decade for real pay growth in almost two centuries. Of course, the direct impact of the financial crisis is now in the past, and pay is now higher than the lows it reached in 2014. Yet the pay squeeze returned again in 2017, delivering a second blow to incomes. Both nominal wages and changes in prices have contributed to this awful performance – and to the poor prospects for the next few years.

An inflation rollercoaster has played a large role, and much will depend on whether its post-referendum spike is over

As a small open economy, the UK has been exposed to significant price volatility, with the risks often borne by workers. Changes in the value of the pound, world food prices and world fuel prices have all fed through to wage squeezes – both pre- and post- financial crisis. But the crash in global oil prices from 2014 in turn helped drive real pay back up. And then, although the low inflation of this period would not have lasted forever in any case, the immediate drop in the value of the pound following the Brexit referendum sparked a substantial rise in inflation – as shown in the 2017-18 spike in Figure 1.

---

CPI inflation rose from 0.5 per cent in June 2016 to 3.0 per cent in December 2017. As this report will show, this price growth has had a large effect on living standards. However, the crucial question for the living standards outlook is how long such high inflation might persist. The OBR’s Economic and Fiscal Outlook forecasts imply that inflation has peaked – with the large decline in the pound having now fed through.

As ever, the OBR ultimately forecast a return to the Bank target of 2 per cent CPI inflation. But, as experience has shown, it is difficult to predict big changes in inflation. For example, in June 2010 the OBR forecast 2.5 per cent inflation for 2011, but the outturn was 4.5 per cent. And as late as March 2014 it forecast 2 per cent inflation for 2015, whereas the outturn was zero.\(^4\)

The difficulties in forecasting inflation – and influences such as the pound and commodity prices – is compounded at present by the possibility that import tariffs could increase on goods from the EU, or that they could go up or down for goods from the rest of the world. This report does not explore this possibility or its likelihood further, but previous work has shown that there is the potential for large changes in prices.\(^5\)

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\(^4\) OBR historical official forecasts

Nominal pay growth is expected to stay unusually low

Nominal pay growth took a large hit following the financial crisis (though this and high inflation may have helped keep employment from falling further). With an improving labour market, it recovered somewhat in 2015 but despite a further tightening of the labour market since then, and despite recent inflation shocks, pay growth has remained stubbornly low. What’s more, the OBR expects it to remain weak, with nominal pay growth of less than 3 per cent a year until 2021, compared to the pre-crisis norm of 4 per cent. As Figure 2 shows, average regular pay has not grown at 4 per cent since early 2008, and in the current forecast never returns to that pace. It has not hit 3 per cent since January 2009.

Of course, such an outlook is far from certain, and there are tentative signs of nominal pay growth rising. With a tight labour market (see Section 3) and high inflation, it is possible that there will be momentum for larger pay increases. However, for this to happen in a sustainable way, productivity growth must return.

Productivity growth has been exceptionally weak

Growth in output per hour is a key determinant of living standards improvements. And again the record of the last decade has been remarkably poor, with nearly a decade of lost growth. OBR forecasts have been repeatedly revised down, with a particularly large adjustment to forecast trend growth in November 2017. But – as the OBR’s alternative scenarios, shown in Figure 3,
indicate – different trends would soon compound into big differences. Productivity at the end of this forecast period would be 12 per cent higher if the pre-crisis trend were followed (the green line) than if the post-crisis trend continued (the red line).

Forecasts in recent years have proved overly optimistic, and another economic downturn is always possible. But there have been some recent indicators of falling hours (discussed in Section 3) and steady GDP growth, together implying a pick-up in productivity growth in the second half of 2017.[6] It will be some time before any change in trend can be detected – and there is always the potential for figures to be significantly revised – but a pick-up is certainly needed given the current outlook for real wages.

Real pay is unlikely to return to its pre-crisis peak until the 2020s

The inflation rollercoaster and persistently low nominal pay growth have left average real pay lower than a decade ago and lower than a year ago. The latest figures show average real earnings fell by 0.3 per cent in the year to December 2017. While this is up from a low of -0.6 per cent and is expected to improve slightly there are currently few signs of a return to strong real pay growth.

Figure 4 shows the OBR’s weak and strong productivity growth scenarios again, but this time in terms of average pay. Even with an immediate return to nominal earnings growth of 3.3 per cent – as in our interpretation of the strong scenario – average real pay wouldn’t return to its pre-crisis
peak until 2022. In the OBR’s central forecast, real pay does not return to the previous peak within the forecast period but would be on track to do so around the mid-2020s. And if the post-crisis productivity trend were to continue, the UK would be facing multiple decades of lost pay growth.

Figure 4: Average pay is unlikely to return to its pre-crisis peak until the 2020s

That should be CPI-adjusted (2016-17 prices)

<table>
<thead>
<tr>
<th>Year</th>
<th>Weak pay growth</th>
<th>Strong pay growth</th>
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<tbody>
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<td>1997</td>
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<tr>
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<tr>
<td>2025</td>
<td>£37,000</td>
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</tr>
</tbody>
</table>

Note: The weak pay scenario assumes 2.1 per cent annual growth and the strong scenario assumes 3.3 per cent growth. These are in line with OBR productivity scenarios in the Economic and Fiscal Outlook – November 2017.

Sources: OBR with RF analysis

While these figures are for employees, the OBR assumes very similar earnings growth for the self-employed.

But of course not all employees face the same pay prospects. One notable group is the public sector – representing almost 1 in 5 employees. Public sector pay was frozen in 2011-12 and 2012-13 for all but the lowest paid. It was then limited to an average of 1 per cent growth from 2013-14 to 2015-16, and was then capped again at 1 per cent until April 2020. Following pressure to change the policy, the cap will now be lifted in 2018-19 instead, but the exact implications of this are unclear and it is assumed that growth will still remain below that in the private sector. Figure 5 shows how the squeeze is likely to continue for some time before weak real pay growth returns.
On these forecasts, average pay in public sector education will be lower in 2022-23 than in 2004-05; and public administration pay lower than in 2005-06: an overall pay stagnation of 18 and 17 years respectively.

The flipside of below-average earnings growth in the public sector, however, is that private sector pay growth is expected to be higher than overall pay growth. And for some it is particularly strong despite the weak picture overall.

### Earnings inequality is falling quickly

While it will take time for average pay to return to where it was before the recent post-referendum decline, and far longer to return to its pre-crisis high, some groups have fared considerably better than this average.

The National Minimum Wage has been rising faster than average earnings, and the introduction of the National Living Wage in April 2016 gave a further boost. As Figure 6 shows, the wage floor (for those age 25 and above) in October 2016 was 7.5 per cent higher than a year earlier. The National Living Wage is very likely to surpass inflation for several more years, as it rises to reach 60 per cent of typical hourly pay.
It is not just the very lowest earners who’ve seen real wage growth. Hourly pay growth in recent years has been thoroughly progressive, and earnings inequality has dropped starkly. This could be expected to continue, with the National Living Wage continuing to rise and with those somewhat above the wage floor (or below the age threshold of 25) often benefitting too. In addition, rising hours worked have been pushing up weekly pay for low earners too (see Section 3).

The scale of difference between wage floor growth and average earnings growth is not expected to remain as large as in 2016-17, however, and in proportional terms future increases in the bite of the National Living Wage are expected to slow, and then end in 2020-21. Our modelling of household incomes later (in Section 6 onwards) is therefore based on a very progressive pattern of earnings growth in 2016-17 and 2017-18; a more balanced but still very progressive profile until 2020-21; and then flat growth of around 3.1 per cent a year for everyone after that. Figure 7 shows these assumptions, having divided employees into five private sector quintiles and five public sector quintiles – from lowest to highest pay (using hourly pay quintiles between 2017-18 and 2020-21 and weekly in other years).

[7] The RF Earnings Outlook, Resolution Foundation, December 2017
In terms of pay therefore, the overall outlook is one of very weak real pay growth for many, but with continued reductions in earnings inequality as the National Living Wage climbs to its ultimate goal.

But earnings are not the only determinant of living standards, of course. In Section 4 we look at how inflation has also impacted on the generosity of benefits, which risks counteracting the progressive outlook for earnings (and then some). Before then we look at the more positive labour market story that is employment, and its outlook for coming years.
Levels of employment, as well as the hours people work, are key determinants of household incomes. In the years since the financial crisis, employment and unemployment rates have recovered more quickly than after previous recessions. Indeed, in 2017 a 40-year record share of UK adults participated in the labour market; while a similarly record-setting low proportion of that group were unemployed.

Employment has consistently surprised on the upside in recent years, but this section explores how such success means that further progress on this front will be difficult – though not impossible. There are signs of a plateauing of employment and unemployment, and an ageing population means that the proportion of all adults in work is in fact projected to decline after around 2020. Large employment variations between regions and between groups persist, however, suggesting that there is still some untapped potential for further progress. Like employment, average hours per worker are also not expected to continue boosting incomes.

Employment has recovered very well since the crisis, but may now have levelled off

The UK employment rate (ages 16-64) currently stands at 75.2 per cent, nearly the highest on record since 1971. This reflects a rapid improvement in employment until the latter half of 2017. Indeed, the jobs recovery from the 2007-08 financial crisis compares favourably to previous recessions. Figure 8 shows that while it took 12.5 years for employment to regain its previous level after the early-1990s recession, and 9.5 years to return in the 1980s, the pre-2008 crisis peak employment level was regained after just 6.5 years.
The growth in employment has been driven since 2012 by a reduction in flows out of employment, while flows into employment have been more stable. More recently, flows from employment to unemployment have been at record lows, falling below their pre-crisis low point in 2016 and staying there. The rate of redundancies is also unusually low, as is the proportion of people who would like a job but are currently not looking for one: both signs that there is not a lot of slack in the labour market. Most recently, the Bank of England has reported signs of above-average recruitment difficulties in the second half of 2017.

High employment is of course good for aggregate household incomes – although that is not the only measure of living standards and not everyone has the time or ability to work. Rising employment also produces lower inequality than rising earnings, for a given level of overall growth, with lower income households the greatest beneficiaries.

A tight labour market is not just directly beneficial but should also be expected to improve job conditions. Strong employment performance has so far failed to translate into stronger pay growth, as discussed in Section 2, but there are signs that market tightening appears to be leading to short-hours jobs being replaced by full-time ones. This offsets some of the rise in more insecure forms of work that occurred at the beginning of the employment recovery. The UK may in fact recently have passed ‘peak insecurity’. In the year to December 2017 the overall number of jobs rose by a net 321,000. This net figure reflects a rise in full-time employment of 401,000 and a fall in full-time self-employment of 73,000, alongside a fall in part-time employment of 56,000 and a rise in part-time self-employment of 56,000. In addition, the number of people on zero hours contracts appears to have stopped rising.

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With employment already so high, the employment rate may now be levelling off, with little further growth over the last nine months. Looking forward, Figure 9 shows that the OBR projects both the participation and employment rates to level off and then actually decline.

The rest of this chapter explores this projection further, and looks at how far it reflects the performance of the economy or demographic change. Whatever the driver, it seems unlikely that household incomes will receive the same boost from rising rates of employment as they did in the five years up to early 2017.

**Unemployment has been falling for five years and is forecast to plateau over the next five**

Part of the reason why employment is not expected to rise further is – to perhaps state the obvious – that unemployment is not expected to fall any further. Figure 10 shows that the rate of unemployment was 4.4 per cent in the three months to December 2017. Recent levels have been lower than at any time since 1975. And falling unemployment is a trend also seen in most rich countries over the last few years, contributing to an international tightening of labour markets.[10] UK unemployment has plateaued in recent months, however, and the OBR projects no further falls – and in fact a rise to 4.6 per cent eventually.
A further sign of labour market tightening, shown in Figure 10, is the decline in long-term unemployment – anything over 12 months – as a proportion of overall unemployment. This has fallen from a recent peak of 36.9 per cent in Q1 2014 to 25.0 per cent in Q4 2017. The latest Bank of England Inflation Report uses this to argue that perhaps, unlike in previous recessions, the latest recession has not driven any persistent structural change in long-run employment.

It is worth bearing in mind that unemployment statistics in recent years have repeatedly surprised forecasters on the positive side, for example relative to OBR forecasts in March 2015 and March 2016. Unemployment forecasts were revised down in March 2016, but even the revision then proved too pessimistic. In March 2017 the OBR revised down its estimate of the equilibrium rate of unemployment – that which is consistent with stable inflation – to 5.0 per cent, and in November 2017 to 4.5 per cent. But it assumes that planned increases in the National Living Wage, discussed in Section 2, will raise this marginally to 4.6 per cent by 2022.

Similarly, the Bank of England Monetary Policy Committee in February 2017 cut its estimate for the equilibrium rate from 5 per cent to 4.5 per cent, but has now gone further reducing it to 4.25 per cent in February 2018.

Most major forecasters do not expect the rate of unemployment to go significantly lower than 4 per cent, and there are again signs of a plateauing in recent data. But some economists such as the Monetary Policy Committee Member Michael Saunders have recently dissented from this.

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Saunders notes weakening prospects for workforce growth (with foreign worker inflows already having slowed down in the past 18 months) and strengthening broader labour market trends such as firms’ hiring intentions and the level of job vacancies – giving an extra optimistic outlook for unemployment in 2018.

**Downward pressures on labour force participation will keep employment growth subdued**

The relationship between the unemployment and employment rates isn’t a directly inverse one. The employment rate is also about how many people are participating in the labour force at all. The 16+ participation rate is forecast by the OBR to remain broadly flat up to 2020 (see Figure 9), before declining in the second half of the forecast period. The downward pressure on the 16+ employment and participation rates over the five-year forecast period derives mainly from the growing share of older people in the population.

Figure 11 above shows that the over-60s population is set to grow far more rapidly than the 25-59 age group (despite downward revisions in future life expectancies). The 65+ population is forecast to be 12 per cent larger in 2023 than in 2016, while the 25-59 population is forecast to be only 1 per cent larger. And the 60-64 population is set to grow particularly rapidly as the later ‘baby boomers’ of the late 1950s and 1960s reach that age range.

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Despite this demographic outlook, however, the ratio of pensioners to working-age people is actually forecast by the ONS to fall in the short-term. This is largely due to increases in the state pension age. As shown in Figure 12, women’s state pension age has been rising rapidly from 60 towards 65, and by the end of 2018 will no longer be different from men’s. This has been an important driver of higher employment rates and a boost to average household incomes. And over 2019 and 2020 the state pension age for all will rise towards 66. After that point, however (until the late 2020s when the age rises to 67), this countervailing force to demographics will disappear.

More uncertain is the outlook for migration. The ONS now assumes net immigration will fall to 165,000 per year by 2023, a slight downwards revision from its previous figure of 185,000 in that year (but still above the government’s target of 100,000 a year). This new, lower assumption partly reflects the recent path of net immigration taken since the June 2016 EU referendum: the latest estimates are that net long-term international migration was 230,000 per year in the year ending June 2017, down by 106,000 from a year earlier. This net figure reflects a statistically significant fall in immigration but a non-significant change in emigration.

Estimating future migration flows with any degree of accuracy is extremely difficult. And to add to this, there is the possibility of policy change as a part of Brexit. This adds a significant degree of Brexit-related uncertainty to labour market forecasts for the next five years, and for the demographic outlook. To give a sense of scale, with an extreme assumption of zero net migration the projection for annual population growth by 2022-23 would be halved – with the impact inevitably more on working-age numbers than the pensioner population.
The employment boost to living standards may be drawing to a close, but there are still opportunities among some low-participation groups and geographical regions

Although demographic change is a strong headwind to further employment growth, significant differences in labour market participation remain in place between different regions and groups, suggesting there is potential for improvement in the national employment rate. In the most recent labour market data for the three months to December 2017, shown in Figure 13, Northern Ireland had the lowest 16-64 participation rate, at 68.7 per cent, while the South East had the highest rate at 79.9 per cent.

Figure 13: The proportion of 16-64 year-olds participating in the labour market varies widely between different UK regions

![Bar chart showing 16-64 participation rate for different UK regions, with South East at 80%, South West at 78%, East at 76%, UK at 74%, East Midlands at 72%, London at 70%, Scotland at 70%, North West at 70%, Yorkshire and Humber at 70%, Wales at 70%, West Midlands at 70%, North East at 70%, and Northern Ireland at 66%. Source: ONS]

These regional variations stem, in part, from the differing composition of the population in those regions, particularly their share of low-participation groups.\[16\] To ascertain the potential for future employment progress it is instructive to look at the main demographic groups that still have low participation rates, even in the current tightening labour market.

As Figure 14 shows, participation rates have – consistently – risen substantially for many lower-participation groups: single parents, those aged 50-69 (partly reflecting state pension age...

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increases), single parents and mothers in couples, those with disabilities, and the Black, Asian and minority ethnic (BAME) population.

Despite this convergence, large gaps in participation remain. And previous Resolution Foundation research has found that the participation levels within low-participation groups vary by up to 19 percentage points between different regions, with the largest disparities being among single parents, BAME groups and non-single parent mothers.

The varying performance of different groups highlights the role that wider policy changes have played. The striking labour market success of some groups, and the fact that there has been less progress for others or particular parts of the country, suggests that more than just a tighter labour market is needed to boost engagement.

**As well as employment levels, the hours people work are important**

The OBR’s March 2015 and March 2016 forecasts had expected average working hours to revert to their long-term trend of gradual decline. These forecasts assumed that “a productivity-driven

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Notes: BAME = Black, Asian, and minority ethnic
Source: RF analysis of LFS

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S Clarke, ‘All working together: how to draw more people into the UK labour market’ in S Clarke (ed.), *Work in Brexit Britain: reshaping the nation’s labour market*, Resolution Foundation, July 2017
pick-up in average earnings growth would allow households to work fewer hours while maintaining desired rates of income growth”. But just as that pick up in average earnings growth has failed to materialise, the average hours people work per week have risen rather than fallen.

In part, overall average hours may be affected by the relative numbers of part-time and full-time workers. But hours within those groups have changed significantly. Figure 15 shows that over the last five years, average part-time working hours have increased dramatically, while average full-time hours have remained more stable.

The OBR cites weak wage growth as a possible explanation for the rise in average hours over recent years: that is, people may be choosing to work more hours to support their real earnings. And given the OBR’s weak outlook for productivity and real pay growth, it is sceptical “that the long-term decline in average hours will reassert itself in the near term”.

On the other hand, the rate of overemployment is now higher than the rate of underemployment for those with jobs – i.e. more workers want to reduce their working time than to work longer hours – in a reversal from the situation between 2009 and 2014. Figure 16 shows that around 8 per cent of workers aged 16 plus would like to work more hours than they do currently, but that around 10 per cent of workers want shorter working hours (while accepting that this would mean lower pay). Rates of underemployment and overemployment vary substantially by age and gender.

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**Figure 15: Average hours worked have bounced back since 2010, but are now forecast to decline very slightly**

**Average actual weekly hours of work per worker**

The OBR cites weak wage growth as a possible explanation for the rise in average hours over recent years: that is, people may be choosing to work more hours to support their real earnings. And given the OBR’s weak outlook for productivity and real pay growth, it is sceptical “that the long-term decline in average hours will reassert itself in the near term”. On the other hand, the rate of overemployment is now higher than the rate of underemployment for those with jobs – i.e. more workers want to reduce their working time than to work longer hours – in a reversal from the situation between 2009 and 2014. Figure 16 shows that around 8 per cent of workers aged 16 plus would like to work more hours than they do currently, but that around 10 per cent of workers want shorter working hours (while accepting that this would mean lower pay). Rates of underemployment and overemployment vary substantially by age and gender.
– not to mention by income – with the concentration of overemployment among older workers adding a demographic pressure to these forecasts in the direction of lower hours.\[20\]

Figure 16: Overemployment is now higher than underemployment, but underemployment remains higher than pre-crisis

Proportion of workers wanting fewer or more hours

<table>
<thead>
<tr>
<th>Year</th>
<th>Overemployment rate</th>
<th>Underemployment rate</th>
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</thead>
<tbody>
<tr>
<td>2002</td>
<td>6%</td>
<td>7%</td>
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<td>2003</td>
<td>7%</td>
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<tr>
<td>2016</td>
<td>5%</td>
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</tr>
<tr>
<td>2017</td>
<td>4%</td>
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</tbody>
</table>

Source: ONS

So a continued boost to living standards from either employment growth or hours growth appears unlikely, though on the other hand the OBR’s forecasts do not include any significant negative labour market changes over their forecast period (but downturns are of course hard to predict). The UK is ageing, and although significant changes to state pension ages are partly offsetting this for now, this trend will also bring other challenges beyond the labour market – not least to the welfare system and required levels of taxes. It is to these that we now turn.

\[20\] S Clarke & G Bangham, Counting the Hours: Two decades of changes in earnings and hours worked. Resolution Foundation, January 2018
Section 4

Benefit and tax policy

While wages, productivity and inflation are often out of politicians’ hands, benefit and tax policy is a matter of choice. As will be shown in later sections, the package of welfare cuts announced by George Osborne in summer 2015 remains one of the most important drivers of living standards and inequality now and in the coming years.

This section explores the gradual (or not so gradual) erosion of the real term value of working-age benefits through the ongoing four year freeze in their rates, as well as the growing effect on families of limiting support for families with more than 2 children and the removal of the family element. We also look in more detail at the move to Universal Credit which will reduce incomes for some while also producing some winners, particularly through higher take-up.

In contrast to these substantial welfare changes, there are few further planned tax changes that will affect disposable incomes to such a degree. Those that have been announced, and funded, since Summer 2015 have already been put into practice. One area of note, however, is the divergence between different nations of the UK in terms of tax and benefit policy.

The UK is in the middle of a deep squeeze of working-age benefits

Of the 27.5 million families in the UK in 2015-16, two thirds had some kind of benefit income. All 8.4 million pensioner families received state support (particularly in the form of the state pension), along with 87 per cent of families containing children. In addition, 27 per cent of other households (3 million) benefitted – for the most part from disability benefits. The generosity of the benefit system is therefore (along with the tax system) a key determinant of living standards and the level of income inequality.

A number of policy choices have significantly reduced – and are set to further reduce – the value of these benefits compared to the policies previously in place. Chief among these, at least in relation to the number of families affected and aggregate savings for the government, are decisions over the uprating of working-age benefits. These include the switch from RPI to CPI default uprating from 2011-12, a freeze for some benefits from 2011-12 to 2013-14, a restriction to 1 per cent uprating in 2014-15 and 2015-16, and now a freeze to most from 2016-17 to 2019-20 (inclusive).

At times the impact of these policies has been mitigated by low inflation and made more justifiable by low earnings growth. But the living standards impact of the recent freeze in working-age benefits has been greatly exacerbated by higher-than-expected inflation since late 2016, as discussed in Section 2. Given that CPIH inflation recently peaked at 2.8 per cent, the real terms value of working-age benefits was falling at that same rate, and continues to fall. No uprating of these is expected until April 2020, by which point some benefits – Jobseeker’s Allowance and Child Benefit beyond the first child – will be less valuable than they were in April 1988, 32 years earlier.

[21] Disability premia and disability benefits (such as PIP) have not been frozen. But in the case of ESA, and its UC equivalent, the standard allowance is frozen – in line with the treatment of IS and JSA. It is only the additional support paid for the support group and existing WRAG cases that has not been frozen.

[22] Note that JSA will by 2020 be almost entirely merged into Universal Credit, the basic element of which will be equivalent to JSA in terms of value.
point, the cash-terms freeze and continued high inflation will also have conspired to bring Child Benefit for the first child down to its lowest real-terms level in 20 years, while the Child Tax Credit child element will be at the same level in real terms as it was a decade ago.

Zero long-term change in real terms is not the bar the UK should aspire to clear on working-age benefits, particularly insofar as these represent the UK’s living standards floor (welfare conditionality aside). That is, we might consider “success in raising the consumption floor as an indicator of social progress”[23] – on which measure the UK is therefore arguably making little progress, and indeed is now going backwards. Bear in mind that GDP per head in 2017 was 52 per cent higher than in 1988.[24] And what matters for income and relative poverty is how valuable benefits are relative to other incomes – which for most working age households is driven by earnings.

Highlighting the changing generosity of support, Figure 17 tracks the value of Child Benefit – both for the first child and any subsequent children – relative to average full-time earnings. When it was fully introduced in 1979 Child Benefit entitlement extended to all families with children, worth 4.5 per cent of average full-time earnings for each child. In April 2017, it was worth 3.1 per cent for the first child and 2.1 per cent for subsequent children. So for families with two children (or more), Child Benefit is now less generous than at any previous point in the almost 40 years since it was fully introduced and is set to fall further over the next five years.

**Figure 17: The value of Child Benefit relative to average earnings has fallen significantly in the 40 years since its introduction**

*Benefits as a share of average full-time earnings*

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**Note:** Child Benefit was phased in between 1977 and 1979, replacing the Family Allowance and Child Tax Allowance. Assumes CPI-uprating from April 2020.

**Source:** RF analysis using DWP Abstract of Annual Statistics 2017 and OBR, Economic and Fiscal Outlook, various


[24] ONS series IHXW
Since the late-1990s Child Tax Credit (and its predecessor Working Families Tax Credit) has provided a more generous level of support for families with children, set to equate to 7.5 per cent of average earnings per child when paid in full. However, the generosity of this provision is falling and is heavily means tested with only those without work (1 million families) or low levels of earnings (1.6 million families) receiving such support in its entirety.\(^{[25]}\)

For incomes this has two key implications. First, the relevance of Child Benefit to incomes of families with children may continue to fall but with a relatively minor downward impact on incomes spread across a large population. Second, the value of the Child Tax Credit has a much greater relevance to income for a smaller entitled population for whom changes in generosity can have a major impact.

Perhaps of greater concern is that adult out-of-work benefits have become much less generous too. In the 1970s, Jobseeker’s Allowance (JSA) remained at around a fifth of average full-time pay, as shown in Figure 18. By 1988 that had fallen to 15 per cent, and it is now around 11 per cent. By 2022 basic out-of-work support is on track to fall to 10 per cent of average pay—a new low. And this isn’t the only support being reduced for this group. Reductions in the level of support with private rent (through a freeze to Local Housing Allowances) mean that an increasing number will find a gap between their rent and the support they get to pay for it, further reducing their overall disposable income.

**Figure 18: Increases in the Basic State Pension have arrested its decline relative to earnings, but Jobseeker’s Allowance continues to fall**

*Benefits as a share of average full-time earnings*

\[^{[25]}\] HMRC, Child and Working Tax Credit Statistics UK 2016-17, 2017

\[^{[25]}\] HMRC, Child and Working Tax Credit Statistics UK 2016-17, 2017
In comparison, while the value of the basic State Pension also fell through the 1980s and 1990s relative to pay, over the past decade it has risen from 15.8 per cent to 18.5 per cent of average earnings. That increase as a share of average earnings has been driven in large part by the triple lock. In addition, the new State Pension has been introduced for people reaching State Pension age from April 2016, creating a higher basic provision at almost a quarter of average earnings.

Of course the generosity of Child Benefit, Jobseeker’s Allowance and the State Pension should not be seen in isolation – other benefits and tax credits, private pensions, and family circumstances have also varied over time. But weak or zero uprating is creating a substantial drag on growth in living standards among households receiving a large share of income from those sources. And this is not the only policy reducing out-of-work and in-work support.

### Support for parents is being phased out in other ways too

For support paid to all households Child Benefit is not only being cut in value, but since January 2013 has been paid at a lower rate for households with at least one member earning over £50,000, and withdrawn completely when earnings reach £60,000. As these thresholds are fixed, over time more and more families will become ineligible for full (or any) Child Benefit. Figure 19 shows our estimate that by 2022-23, 23 per cent of potentially eligible families will be subject to this means-testing, up from 16 per cent in 2015-16.

For parents on lower incomes, there are significant cuts to Child Tax Credit and Housing Benefit (carried through into the system that will replace them, Universal Credit (UC)). Such benefits will be limited to two children per family for children born after 5 April 2017 (and, from next year, for new claims regardless of when children are born), while the ‘family element’ of Child Tax Credit (and UC) will also be abolished for families whose eldest child was born after that point. The former cut in generosity equates to £2,780 a year per child while the latter is worth £545 a year per family. Given the phasing in of these policies, their full impact will not be felt for some time – as shown in Figure 19 – but they will continue to drag on living standards improvements even beyond 2022-23. For the group affected this represents a very large downward effect on income compared to families in the same situation now before the policies have been brought into effect.
The roll out of UC has begun in earnest

A key change to working-age welfare over the next few years is the replacement of six benefits and tax credits with UC. Although much delayed, the numbers of people on the new system have increased significantly over 2016 and 2017. As Figure 20 shows, over 730,000 adults were on UC by January 2017, up from around 200,000 in early 2016. For the most part these are the relatively ‘simple’ welfare cases: single adults primarily without children.
The roll-out of (full) UC to jobcentres is expected to continue this year and by December 2018 the current benefit system is expected to be closed to new claims. Existing benefit claimants will begin moving over to UC via a ‘managed migration’ of existing cases starting in July 2019.\[26\] For certain groups, the switch to UC will come much later than others. As Figure 21 shows, 87 per cent of the Jobseeker’s Allowance group are expected to be on UC in 2019-20, whereas only 23 per cent of the self-employed population on Working Tax Credits will be migrated. By 2022-23, however, UC is expected to be almost completely rolled out for all groups.

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\[26\] OBR, Welfare Trends 2018, January 2018
The roll out of UC will affect living standards in a number of ways, good and bad, and some uncertain

Forecasting UC’s impact on living standards over the next five years requires modelling the policy’s rollout against the counterfactual of existing policies continuing unchanged. The Office for Budget Responsibility’s January 2018 Welfare Trends Report outlines their detailed modelling to this end, as well as outlining the major areas of uncertainty in their costing of future UC spending.\[27\]

UC will have its earliest potential effect on living standards through its impact on JSA claimants, 96 per cent of whom are forecast to have been rolled over to UC by 2020-21. In this year, by contrast, only 53 per cent of Employment and Support Allowance claimants will have rolled over to UC and around two-thirds of working families. It is not until 2022-23 that the vast majority of entitled working households with children will be on the new system.

The transition to UC will have a significant impact on the level of support for parents over our five-year forecast period, with the current spending envelope for the policy on course to bring a net spending cut of £1.5 billion per year by 2022-23 for what approximate to largely working families with children (tax credit cases) driven mainly by cuts to the in-work support element of UC (work allowances). Smaller overall net reductions in spend are expected to fall on households claiming incapacity benefits (£0.7 billion in 2022-23) and income support (£0.1 billion).

\[27\] Office for Budget Responsibility, Welfare Trends Report, January 2018
Over this timeframe the full effect of the reduction in generosity that UC brings will not be felt due to a scheme of Transitional Protection. In 2022-23 without Transitional Protection the reduction in spend on Tax Credit families would reach £2.2 billion, and £1.4 billion for ESA cases.

Transitional Protection aims to uphold the coalition Government’s assurance that families actively moved over to UC will not face cash losses in their benefits, though its finer details have not been fully decided.\[28\]

The Resolution Foundation has repeatedly called on the Government to clarify in legislation exactly how Transitional Protection will work.\[28\] It remains unclear exactly what circumstances – for example job and house moves, or the birth of a child – will trigger the end of Transitional Protection, and how the mechanism will work. It is unclear if it will be awarded in cases such as when a child member of a household becomes an adult, or where at the point of managed migration a household claiming Tax Credits has its UC entitlement calculated at £0. The details of Transitional Protection will need to be in place before summer 2019 when the ‘managed migration’ of existing tax credit recipients to UC begins.

Overall, UC brings a mixture of gains and losses for different household types. The level of support for people out of work is similar to the legacy system, while UC is more generous for parents working very few hours due to the work allowance acting as a more generous work disregard or families without children who have their benefit withdrawn at a slower rate. Beyond 16 hours of work per week, UC can be more or less generous than the legacy system depending on a household’s circumstances. Assessing entitlement alone recent Resolution Foundation micro-simulation modelling has found that:

- 2.2 million families are expected to gain under UC, with an average increase in income of £41 a week.
- 3.2 million families are expected to be worse off under UC, with an average loss of £48 a week. 600,000 of those losers, mostly couple parent families, will no longer be entitled to benefits under UC.
- The net impact on couple parent families is broadly neutral. Slightly fewer couple parent families will gain (1.0 million) than lose (1.1 million). The average gain of £54 a week compares to an average loss of £53 a week.
- That is not the case for single parents. They will overall lose by an average of £26 a week but almost twice as many will lose (0.7 million) as gain (0.4 million). And they will lose by almost twice as much on average (many losing £57 a week, compared to gains of £31 a week).\[30\]

One of the most radical potential changes that UC brings is the extension of forms of conditionality to those in work. The intention is to apply such conditions on people earning less than the equivalent of a full-time job on the minimum wage (with some exceptions for carers). While we can expect such a policy to have some impact on work patterns or benefit income it is very hard to say with any certainty what those impacts will be. And even harder when the precise approach and intensity of that policy is yet to be decided.\[31\]

\[29\] D Finch, ‘Five big calls on Universal Credit for the new Work and Pensions Secretary’, January 2018
\[30\] M Brewer, D Finch and D Tomlinson, Universal Remedy: ensuring Universal Credit is fit for purpose, October 2017
\[31\] OBR, Welfare Trends 2018, January 2018
The effect of take-up on incomes

Take-up in general plays an important role in the extent to which benefits actually affect people’s incomes. It is rare for a benefit to achieve close to 100 per cent take-up. Child Benefit historically has been an exception where the simple structure and universal eligibility criteria help maintain high rates of take-up – currently at 94 per cent. Although these have gradually fallen from 96 per cent since the introduction of the High Income Child Benefit Charge from 2012-13.\[32\]

For most means-tested benefits take-up tends to be much lower. Overall, only 63 per cent of families entitled to Working Tax Credit take it up and only 75 per cent of working age families claim their Housing Benefit. However, there is wide variation in take-up by whether families are in-work, have children and importantly by how much they are entitled to. For example, 78 per cent of families with children and working tax credit entitlement take it up compared to only 31 per cent of families without children. Across all families with children take-up falls from 90 per cent of cases where entitlement is greater than £4,000 a year to only 43 per cent where entitlement is under £1,000 a year.

One of the main advantages that UC brings is that in claiming entitlements from a single source people will instantly be claiming all that they are entitled to whether they realise they would be eligible or not (at least for the support encapsulated by UC). Also the design of the policy means that if people move into work or increase their earnings their entitlement will automatically be recalculated and remain in the system until their eligibility ends. In the past people may not have realised they had any entitlement when moving into work or thought that the amount was not worth claiming.

Take-up has a particularly important role to play in assessing the impact of UC on household incomes. On an entitlement basis alone UC leaves entitlements for all families £2.1 billion less generous overall. Higher take-up is expected to increase spend by £2.9 billion. However, those gaining from take-up are not necessarily the same people as those with lower overall entitlement. For instance single parents are the group who lose out the most from UC but already take-up 97 per cent of Tax Credit support and 93 per cent of Housing Benefit that they are eligible to claim – there is very little room for take-up gains.

Figure 22 sets out the various gains from take-up taken from the OBR’s latest publication detailing the impact of UC. As we might expect from current take-up patterns the greatest increases come among working families and those with smaller entitlement (Child Tax Credit only cases who are in-work). With the same logic it is likely that the greatest take-up gains fall among working families without children. The estimates also include a ‘deterrent effect’ that reduces take-up from policies such as in-work conditionality, or potential stigma created by UC’s close relation to Jobcentre Plus.

These take-up effects are important to bear in mind but we do not account for them in our analysis. Future Resolution Foundation research will improve our modelling capacity in this area however we do not believe it will, in the context of wider living standards trends and the scale of non-UC related cuts to working age welfare, have a significant effect on overall patterns of future income growth.

**Unlike benefits, personal taxes are not forecast to change substantially**

There is comparatively little to say about the outlook for those taxes that directly affect disposable incomes. No plans to change UK-wide tax rates have been announced. And, as shown in Figure 23, the major tax thresholds in 2018-19 are little changed from 2017-18, and no further changes have been legislated for. This compares to a string of large real increases in the income tax personal allowance in previous years, as well as significant changes in the higher rate threshold.
The government does have a manifesto goal of raising the Personal Allowance to £12,500 and the Higher Rate Threshold to £50,000 by 2020. However, these commitments have not yet been formally announced or funded, so in our household income modelling (Section 6 onwards) we do not include them. However, as Figure 23 shows, the Personal Allowance is already almost on track to hit this target, so the impact of this tax cut would be relatively small (worth around a further £28 a year to most basic rate taxpayers). There is more of a gap for the Higher Rate Threshold and the additional tax cut needed would be worth over £360 a year for higher rate taxpayers. Were this policy to be included in our modelling, our forecast would (all else equal) become more unequal.

One small change happening to the tax system is that Class 2 National Insurance for the self-employed is set to be abolished. This is a flat charge (except for the very lowest earners) equivalent to around £150 a year and its abolition is welcome. This policy has been delayed by a year and will now boost income growth (very slightly) in 2019-20 rather than 2018-19.

More significantly, council tax rates in England rose by 4 per cent in 2017-18 (and slightly higher in Wales) and are expected to do so again in 2018-19 – considerably faster than earnings growth and clearly faster than working-age benefits are growing. This is driven in part by the social care precept, with increases nominally earmarked for care requirements. Nonetheless though, in terms of household cash flows, it plays an important part in our projections – and particularly so in Scotland where policy has diverged from England and Wales.
Taxes in Scotland are diverging from the rest of the UK

With new devolution and use of powers, the Scottish tax system is moving away from the UK baseline in some important respects.

From 2017-18, council tax has been made less regressive with respect to property values, with increases for those in the upper council tax bands, E-H. This was accompanied by some protection for those on lower incomes and increases in the generosity of the Council Tax Reduction system. Council tax overall is forecast to rise less in Scotland than in England and Wales, but higher taxes for some will drag on incomes while reducing inequality.

And while there are no UK-wide plans for changing income tax rates, this is not true in Scotland. From April 2018, it is very likely that tax rates will go up by 1p for incomes over £24,000. And those on low to middle incomes will be net beneficiaries due to a very small tax cut in the form of a new 19 per cent tax band between £11,850 and £13,850. Some variation in tax thresholds is also allowed. In 2018-19, the Higher Rate Threshold in Scotland will be lower, at £43,430, than in the rest of the UK (£46,350).

The flipside of higher taxes in Scotland is more spending in certain areas. Many of these are not captured directly in our income statistics: we do not measure the value of higher school spending, for example. But, in addition to the more generous Council Tax Reduction scheme, the Scottish government has also funded a cancelling out of the ‘bedroom tax’, a supplement to Carer’s Allowance from April 2018, and a ‘Best Start Grant’ from 2019 for low income parents. At present we do not model these policies.

There are relatively few differences in taxes and benefits in Wales and Northern Ireland – and some such as in stamp duty will not affect our disposable income measures – but in time the differences seem set to grow.

The coming impact of tax and benefit policy is still largely being determined by the cuts to working age welfare announced by George Osborne in summer 2015. But it is not just tax and benefits impacting on living standards once earnings and employment are accounted for. The next section turns to wider factors affecting disposable income such as housing costs, tuition fees and pension contributions.

\[33\] For more information see A Corlett, *Battle of the bands: The prospect of council tax reform in Scotland and beyond*, Resolution Foundation, April 2016

\[34\] At the time of writing, these are subject to the passing of the Budget bill.
Section 5

Housing, student loans and pension saving

Earnings, employment, taxes and benefits are not the only determinants of living standards. Housing is worth exploring in depth (beyond its partial inclusion in inflation indices), with mortgage costs and rents playing a large role in income trends. This section also looks at the impact of student loan repayments and of pension auto-enrolment. Although increases in pension saving will be of long-term benefit, in the short-term this will inevitably reduce disposable incomes and this report models the likely impacts of this for the first time.

Bearing in mind the factors covered in this section and earlier, following sections then look at what all this means for household incomes in aggregate and for different groups.

Mortgage costs are expected to rise modestly, from a very low base

In our Living Standards Audit 2017, we noted that the typical disposable incomes of mortgagors have received a big boost from falling interest rates. This has contributed to a widening of the income gap between homeowners and non-homeowners and of overall inequality (after accounting for housing costs).

A key factor in our income projection is therefore what happens to average interest rates. In November 2017, the Bank Rate rose for the first time in over a decade, but only to 0.5 per cent. As shown in Figure 24, the OBR expects average mortgage interest payments (determined by both borrowing costs and historic house prices) to continue rising. However, in November it actually downgraded its mortgage cost forecast on the basis of greater-than-expected falls so far thanks to a narrowing of lenders’ margins.

However, the Monetary Policy Committee has indicated that policy may “be tightened somewhat earlier and by a somewhat greater extent over the forecast period than anticipated at the time of [its] November report”. High employment, high inflation and rate rises overseas all point to further increases in the UK.

Even on the existing forecasts though, it is clear that there is little space for mortgage interest costs to continue to fall and that they are therefore likely to transform from a boost into a drag on household income growth.

What is less clear is what trends in housing tenure we should expect. In recent years barriers to home buying have caused declining numbers of mortgagors but record levels of outright homeownership. Our previous projections have suggested that home ownership rates for young people may bounce back somewhat from a post-crisis low, and indeed home ownership now appears to be – if anything – on the rise. But there is little basis on which to project relative numbers of mortgagors, outright owners and renters in future.

[36] Bank of England, Minutes of the Monetary Policy Committee Meeting ending on 7 February 2018
[37] A Corlett and L Judge, Home Affront: Housing across the generations, Resolution Foundation, September 2017
Private rents have been downgraded while social rents are falling

It should be noted, as ever, that our usual definition of disposable income (after housing costs) only accounts for interest costs. The cost of deposits and capital repayments for homebuyers is not included – though they are important factors in determining access to homeownership and for short-term living standards. Although the OBR has downgraded its house price forecast, prices are expected to continue to grow faster than earnings, as Figure 25 shows.

Social rents, on the other hand, are being held down by a policy that dictates they must fall by 1 per cent each year up to and including 2019-20. Where these rents are covered by housing benefit anyway, this makes little direct difference to living standards, but for others it does mean a boost to disposable incomes.

Rents in the private sector are assumed to rise in line with average earnings growth. Although this is inevitably a gross simplification – not least due to regional differences – it does mean that the OBR’s downgrade of the earnings outlook is also assumed to be somewhat cushioned by a downgrade in the forecast for private rents.

Figure 25: Private rents are assumed to rise at the same rate as earnings, while the costs of homeownership rise faster and social rents are depressed

Annual growth

Source: OBR
This housing costs forecast, while somewhat benign compared to many previous years, clearly does not represent an increase in the affordability of housing. And this is exacerbated by the cuts to Local Housing Allowance discussed earlier, which mean that more of the burden of housing costs will shift from the state to low and middle income families. What’s more, housing is not the only outgoing that is set to grow over the coming years.

**Growing student loan repayments will have a small negative impact on disposable incomes**

In addition to the taxes discussed in Section 4, for many young graduates student loan repayments are a significant outgoing. Repayments are now calculated as 9 per cent of income above £21,000.

However, the relatively small number of people who have been through this loan scheme, together with the relatively high threshold, mean that total student loan repayments are fairly minor in comparison to most taxes and benefits. This will change over time. The OBR estimated that repayments would grow from 0.01 per cent of GDP in 2016-17 to over 0.1 per cent by 2022-23 and 0.3 per cent by 2030-31, before levelling off at around 0.6 per cent of GDP by 2050-51.

Figure 26 shows this rapid growth up to 2022-23. However, since these projections it has been announced that the repayment threshold (for graduates who began their studies in 2012 or later) will rise to £25,000 in April 2018 and rise in line with average earnings thereafter. For those affected, this is a disposable income boost of £360 a year relative to the old system. This will

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**Figure 26: Student loan repayments are relatively small in aggregate, but are growing rapidly**

*Estimated total student loan repayments, £bn*

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated Repayments, £bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-17</td>
<td>0.5</td>
</tr>
<tr>
<td>2017-18</td>
<td>0.7</td>
</tr>
<tr>
<td>2018-19</td>
<td>1.0</td>
</tr>
<tr>
<td>2019-20</td>
<td>1.5</td>
</tr>
<tr>
<td>2020-21</td>
<td>2.0</td>
</tr>
<tr>
<td>2021-22</td>
<td>2.5</td>
</tr>
<tr>
<td>2022-23</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Source:* RF analysis of OBR FSR 2017 & cost of student loans repayment threshold increase from HMT Budget 2017
reduce total repayments over the forecast horizon, as shown in light blue in Figure 26. However, it is not enough to outweigh the aggregate effect of growing numbers of graduates making loan repayments, and so overall student loan repayments will be a drag on living standards growth going forward.

In our household income projections we are not able to account for student loan effects. The growth in total repayments to £1.9 billion by 2022-23 should therefore be borne in mind, particularly for the most relevant age groups over this period (i.e. those in their 20s and 30s by then who will have received large loans) and for those on higher incomes especially. However, the sums involved are smaller than with many other policies. One more important consideration is auto-enrolment.

**The success of auto-enrolment will take a toll on incomes in the short-term**

The roll-out of pension saving auto-enrolment to employers finished on 1 February 2018, as the last batch of employers became obligated – completing a process that began in 2012. As Figure 27 shows, the number of employees auto-enrolled hit 9.3 million in January 2018, approaching the DWP’s rough goal of 10 million. But the next stage is for the minimum contribution requirements to rise significantly. In April 2018, the minimum contribution of employees – including tax relief – will rise from 1 per cent of pensionable salary to 3 per cent; and then this will rise to 5 per cent in April 2019. Minimum employer rates will rise at the same time.

![Figure 27: The roll-out of auto-enrolment to employers is almost complete, and minimum rates are about to start rising](https://example.com/figure27.png)

*Note: RF projection for February 2018, below DWP’s previous projection of around 10 million*

*Source: The Pensions Regulator*
This is good news for pension saving, and contributes to a reasonable outlook for future generations’ pension adequacy. But disposable incomes – our main measure of living standards in this report – are by convention net of pension contributions. The success of auto-enrolment so far in boosting the number of pension savers, and its expected imminent success in boosting the levels of contributions, therefore comes with a short-term living standards hit.

Figure 28 gives an example of the typical full-time employee’s take-home pay (with projection based on the OBR’s pay forecast) after income tax, National Insurance and the minimum auto-enrolment contribution. Even without auto-enrolment – and even with income tax cuts over this period – real take-home pay does not quite return to its pre-crisis peak by 2022-23. But going from no pension saving to contributions of 5 per cent of salary above the relevant threshold (the ‘Lower Earnings Limit’ of around £6,600 in 2022-23) further reduces take-home pay. With the minimum auto-enrolment contributions, annual take-home income in this example would be over £150 lower in 2022-23 than in 2016-17, and over £1,100 lower than in 2009-10.

Figure 28: Consideration of auto-enrolment makes the already bad typical net pay outlook worse still

Real take-home pay for median full-time employee, 2017-18 terms (CPI adjusted)

Notes: Assumes an employee pension contribution of 1 per cent from 2013-14, rising to 3 per cent in 2018-19 and 5 per cent in 2019-20.
Source: ASHE, OBR and RF

In our disposable household income projections (see Section 6 onwards), we include for the first time this impact of more pension contributors and higher contribution rates. Underlying our projections is data from 2015-16, and so estimating which groups have started saving and how employers and individuals will respond to the rising contribution floor is necessarily a rough exercise. For example, we assume employers and employees stick to the legal minimums, rather

[39] D Finch & L Gardiner, As good as it gets? The adequacy of retirement income for current and future generations of pensioners, Resolution Foundation, November 2017
than raising contributions to 5 per cent earlier than April 2019 or going beyond that level. Perhaps optimistically, we assume that rising minimums do not lead to a rise in opting-out, and that higher pension contributions for some are not accompanied by a ‘levelling down’ for others. But, importantly, we also assume that auto-enrolment only affects marginal earnings above the Lower Earnings Limit rather than all earnings. In fact, 70 per cent of eligible employees so far have been contributing based on their entire earnings. If this continues then the impact of rate rises will be quite a bit greater than we have modelled. More details are given in the Annex.

Figure 29 shows our modelling of the disposable income fall resulting from auto-enrolment’s success in recent and forthcoming years, across the non-pensioner population from poorer to richer. These figures should be considered in the context of around 2 per cent annual (real) growth being the pre-crisis norm. So although losses of 0.1 per cent or even 0.5 per cent of income are not huge, this does represent a big impact on income growth in these years. Although felt across the income distribution, our modelling suggests that the largest impacts are on low to middle income working-age households (as might be expected given that we are modelling impacts on private sector employees not already contributing to a pension, but earning enough to qualify). Those least affected are the highest income households.

Note: Models the impact on household income growth of more people saving in 2016-17 and 2017-18 (assumed to be at 1% of pensionable salary); more savers and a rise in the minimum contribution to 3% in 2018-19; and a rise to 5% in 2019-20. Results with high degrees of uncertainty have not been shown.

Source: RF modelling (see Annex)
Our figures are broadly in line with DWP modelling showing that in 2019-20 £9.4 billion extra will be contributed by employees into pensions as a result of auto-enrolment – including increases of around £3 billion in 2018-19 and then again in 2019-20 – plus £2.9 billion in new tax relief.[41]

Our forecasts go up to 2022-23, but we should also note that the government proposes to further extend auto-enrolment in the “mid-2020s”. First, it plans to lower the age limit from 22 to 18. And, second, it plans to require pension contributions from the first pound of earnings rather than only including earnings above the Lower Earnings Limit. This policy would increase personal contributions for many by around £300 per year. We have not included this in our modelling.

Higher pension saving is not a bad thing in the long-term, of course. But it is important to understand the strains on disposable income that many people could be facing in the short-term and whether other policies will alleviate – or exacerbate – that. In fact auto-enrolment is set to have its largest impact at a time of weak wage growth and substantial benefit cuts – contributing to a poor outlook for household incomes.

[41] DWP, Automatic Enrolment Review 2017: Analytical Report, December 2017, Fig 4.1
Section 6

The prospects for average income growth

Having explored the different drivers of living standards and their prospects, this section now models the outlook for mean and median household income. From a baseline of 2015-16 (the latest available data), we find that the combination of above-target inflation, subdued wage growth and limited employment gains explored earlier means household income growth slowed in 2016-17 and again in 2017-18. Applying OBR projections for a number of economic factors, our modelling returns disappointing household income growth in 2018-19 and 2019-20 too; but with stronger growth then building through to 2022-23.

Household incomes stagnated overall in 2017-18

Earnings, employment, taxes and benefits are all important economic measures. But to get the fullest picture of people’s living standards, we use inflation-adjusted, equivalised household disposable income – which brings all these and more together. Our basis for this is the government’s Family Resources Survey. However, at the time of writing, the latest available survey data covers 2015-16 – a greater lag than for most economic statistics due to its complexity.

To estimate household incomes in more recent years, and to project into the future, we cast forward the 2015-16 survey data using all the factors discussed earlier: earnings growth, changes in taxes and benefits, employment and demographic changes, higher pension contributions and more (see Annex for more details). Where possible, these assumptions use OBR projections. Like any economic projections, these may prove wide of the mark, but note that the tax and benefit rates of the next few years are rather easier to predict.

First, we can use this method to estimate how household incomes have changed in 2016-17 and 2017-18 – where most of what’s happened is already known. As shown in an earlier Resolution Foundation report, our ‘nowcast’ for 2016-17 is one of slower growth, after a couple of strong years previously on the back of very low inflation. Figure 30 details both outturn and projected growth in mean and median household income in the period since 1995-96. It shows how growth in median income has slowed from 3.1 per cent in 2014-15, to 1.6 per cent in 2015-16 and an estimated 1.2 per cent in 2016-17. More strikingly, we estimate that typical real incomes will fail to grow at all in 2017-18: the worst performance since the income falls of the post-crisis period.
This should not be surprising. As outlined in earlier sections, inflation has been consistently above the Bank of England’s 2 per cent target over the course of 2017-18. With just a couple of months of data still to come, it looks like consumer prices will have grown by an average of 2.9 per cent over the year. As a result, both average pay and benefit payments have fallen in real-terms. Small increases in employment, along with falls in mortgage costs, have not been enough to outweigh those downward pressures.

Although we will have to wait some time for the best source of outturn data for the period since 2015-16 to become available, other sources provide some clues as to the recent direction of travel. For example, ONS National Accounts-based figures on average Real Household Disposable Income (RHDI, here with imputed rent and other non-cash components removed) are available through to Q3 2017. Figure 31 sets out the recent trend, and details a marked decline in real income per person in the period since the start of 2016.

[46] Alternatively we can measure incomes after housing costs, and then use a modified CPI price deflator that excludes all housing costs. These approaches give similar results.
This average figure may be distorted, for example by dividend income fluctuations that are dominated by those with very high incomes. The bringing forward of dividend payments into 2015-16 (to beat the April 2016 tax rise on dividend payments) is likely to have artificially boosted the mean income measure in that year, with an offsetting weakening of the 2016-17 figure. Nonetheless, clearly strong income growth is not apparent in the 2017-18 data so far.

For 2016-17, we also have survey-based data from the ONS. Its Living Costs and Food Survey is smaller than the DWP’s Family Resources Survey and there are important definitional differences between both of these surveys and the RHDI figures, so we shouldn’t expect the growth rates to align perfectly. Indeed, the Living Costs and Food Survey returns much stronger real-terms growth in 2016-17 (2.3 per cent) in typical household income than either the RHDI or our Family Resources Survey-based estimate. But focusing on the relative trend implied by the Living Costs and Food Survey, we can discern a familiar picture. Namely, relatively strong growth prior to the referendum and a likely deterioration since due to higher inflation (along with the aforementioned dividend income distortion in 2016-17).

The final alternative source worth considering is the Bank of England’s NMG Survey – a quick household survey run by NMG Consulting for which results from the second half of 2017 are already available. For detailed household income analysis this promising resource is new and relatively untested, but our analysis suggests it is consistent with real typical income in the second half of 2017 being lower than 12 months previously.

[47] ONS, Household disposable income and inequality in the UK: financial year ending 2017, January 2018
Growth is projected to rise but remain weak

With 2017-18 still to run its course and with official data taking time to come through, we can’t yet assess the precise level of income growth for the year. It seems clear, however, that it was a bad time for UK living standards improvements. In thinking about what comes next, we must ascertain the extent to which what has happened represents a one-off hit – reflecting the post-referendum devaluation of sterling – and the extent to which it marks something more structural.

By combining the OBR’s economic projections with knowledge of what changes are due in the tax and benefit system, we can model what might happen to incomes in each year from 2018-19 to 2022-23. Assumptions about the future are, of course, liable to change. And government can influence what happens by changing policy direction. But the big picture over this period is of annual income growth picking up gradually without ever returning to the pre-crisis average of over 2 per cent. Figure 32 shows how typical incomes are projected to grow in real terms by just 0.5 per cent in 2018-19 and 0.7 per cent in 2019-10, before growth rises to 1 per cent and then a little higher.

Figure 32: Growth is projected to increase, but not return to pre-crisis norms

The OBR’s aggregate forecast for per capita household income is similar, though even worse. Figure 33 sets out the trajectory, with incomes flat or falling in each year from 2016-17 to 2020-21, before some growth returns in the last two years of the forecast period. While this measure is a broad one that doesn’t necessarily reflect the cash experiences of households well – it includes imputed rents for example, and is more comparable with the RHDI measure of income – it provides a useful breakdown of the main drivers of the OBR’s forecast. As Figure 33 shows, these
include near-zero growth in real labour incomes and a continued squeeze by the state in relation to taxes and benefits.

Figure 33: The OBR forecasts several more years of weak or negative growth

Contributions to per capita real household disposable income growth

With reference to this final point, it is important to remember that benefit cuts are part of a government attempt to lower the deficit. Public sector net borrowing is projected to fall from 2.4 per cent of GDP in 2017-18, to 1.1 per cent in 2022-23. The impact on households affected by benefit cuts is of course more visible than the counterfactual impact associated with cuts in other forms of government spending or a higher deficit, and there is clearly much room for debate on the distribution of deficit reduction. But we should nonetheless bear such trade-offs in mind.

It should also be noted that we do not capture the value of public services in our household income statistics. As with the deficit, we may record the impact (positive or negative) of tax or benefit changes without recording changes in public services that may offset these – or exacerbate these – in terms of living standards.

Note: ‘Non-labour income’ includes imputed rental income. It also includes dividend income, which was boosted in 2015-16 and lowered in 2016-17 due to tax avoidance.

Source: OBR, Economic and Fiscal Outlook

[48] For some statistics on this see the ONS’s Effects of taxes and benefits on UK household income data
Section 7: The prospects for particular groups

The overall figures presented in the previous section conceal a wide range of projected outcomes for different groups. In this section we look briefly at some of these. By housing tenure type, outright owners are forecast to have the highest income growth, with increases in interest costs weighing down slightly on mortgagors (though from a low base) and benefit cuts typically weighing down on social renters. Benefit cuts also help explain why larger families, single parents and out-of-work households are projected to see real falls in their incomes over the period from 2016-17 to 2022-23. These trends are also likely to have different impacts on typical incomes by ethnicity, with Bangladeshi and Pakistani households containing more children on average than others. And – although the inputs to our modelling are not detailed on a regional level – we project varying growth across the UK, with the lowest growth in median incomes in Northern Ireland and Wales, and the highest in London.

The following sections then look at the distribution of growth by income and what this means for measures of inequality.

Disposable income growth for mortgagors and social renters is expected to be slow

We noted in Section 5 that housing costs are expected to pull in different directions for different groups. In particular, while mortgagors have benefited significantly in recent years from falling or stable interest costs, this situation is unlikely to persist. Mortgage costs are forecast to rise slightly faster than average earnings after 2018-19, and this helps explain why – as shown in Figure 34 – typical disposable income for mortgagors is expected to grow by only 2.3 per cent over the whole period from 2016-17 to 2022-23: slower than outright home owners and private renters. Despite a low forecast for social rent increases until 2019-20 (as a result of government policy), social renters have the worst forecast as a result of the relatively high levels of benefit income among this group – giving them greater exposure to benefit cuts.
Honing in on the role of housing costs, Figure 35 shows how the average ratio of housing costs to incomes (i.e. the share of income that is then spent on housing) for different tenure groups has varied over time – including our projections. Although housing cost to income ratios for mortgagors are expected to start rising again, these changes are small relative to the scale of the falls since the financial crisis. For private renters, housing cost to income ratios are also set to rise slightly – in part due to further housing benefit cuts.
Larger families, single parents and out-of-work households are likely to see the largest income falls

While real incomes overall are expected to be higher in 2022-23 than in 2016-17, some groups are expected to see falling incomes over this period. This includes working-age families with three children or more, whose typical income after housing costs is projected to be 8 per cent lower in 2022-23 than in 2016-17 (as shown in Figure 36), with incomes falling in each individual year. Single parents are projected to be 4 per cent worse off. Increases in earnings are clearly not forecast to offset reductions in benefit income for these families.

In previous work, we have shown how Bangladeshi and Pakistani households experienced particularly high income growth between 2001-02 and 2015-16.\[50\] In contrast, in our projections they our forecast to have the lowest income growth of any ethnicity category – likely reflecting the fact that these households on average contain more children than others. These figures should be treated with caution given small sample sizes and given that we do not model employment or demographics by ethnicity (and so implicitly assume that previous trends in closing employment gaps and shrinking family sizes do not necessarily continue). But they do at least imply that benefit cuts and other factors will make it harder for the previous trend of a shrinking of ethnicity income gaps to continue.

Figure 36 also shows that workless families in which the head or spouse is looking for work are also projected to have lower typical income in 2022-23 than in 2016-17, reflecting the shrinking generosity of the benefit system.

Growth may also vary across the country

Given variations across the nation in employment rates, pay, demographics, housing markets and more; it should be unsurprising that our projections for growth also vary across the country. Figure 37 shows how the lowest growth in real typical incomes is expected in Northern Ireland (only 1.4 per cent higher in 2022-23 than 2016-17) and Wales (with 3 per cent growth). In stark contrast, typical income in London is expected to be 11 per cent higher in 2022-23 than 2016-17.

These figures should be treated with caution, as our modelling does not include detailed assumptions about employment or housing by region, for example. But it should be obvious that benefit cuts have the greatest impact on regions for whom benefits are a larger share of income on average, or that weaker public sector pay growth has a larger effect on regions more dominated by public sector employment.
We now turn to look at projected income growth from poor to rich, which is interrelated with the projections above and where again there is a wide range of expected outcomes over the forecast period.
Section 8

The distribution of growth

In the previous sections we looked at typical incomes, and the incomes of particular populations. But in this section we look at the distribution of growth across the income spectrum. While growth is projected to be lower in some years than others, it is also projected to be notably weaker for the poorest part of the population than for those on higher incomes. We note that the UK is projected to repeatedly miss a new international commitment to deliver above-average growth for the poorest 40 per cent of the population, as part of the 2030 Sustainable Development Goals. And we note that low to middle income working families are facing a three year stagnation in incomes, contributing to projected income growth of only £300 (2 per cent) over the full decade from 2010-11 to 2020-21.

Growth will not be equally shared across the income distribution

The focus on median income growth that we adopted in Section 6 tells us about one point in the income distribution – that of someone in the middle of the population. This is useful for understanding what is happening to ‘typical’ incomes, and is often better than the mean which can be skewed by outliers. But it might mask very different trends in the bottom and top halves of the distribution. This might be especially important over the period discussed here, with the two sources of household income data so far published that allow us to look at distributional differences after 2015-16 (the ONS’s 2016-17 survey data and the 2017 NMG survey) both pointing to rising (or at least not falling) inequality.

A similar picture appears in our income projections. Figure 38 sets out income growth incidence curves across the distribution for each year between 2016-17 and 2022-23. It shows that growth is projected to be positive for the top half of the distribution in 2017-18 – and broadly in line with the median figure already discussed. But incomes are projected to have fallen for roughly the bottom half.

Growth is expected to strengthen across the distribution after 2017-18, but an unequal pattern of growth is expected to persist. For the lowest income part of the distribution, 2018-19 and 2019-20 are also projected to be years of falling income.

Note that we compare a particular point in the income distribution (e.g. the median) in two years, but households may move position while new households are forming and others ending. Growth rates do not imply that individual households have necessarily experienced such income changes.
This projected pattern comes despite stark falls in earnings inequality, influenced by the National Living Wage, discussed earlier. Instead, our projected distribution of growth is dominated by the benefit cuts and weak uprating explored in Section 4.

Figure 39 removes pensioner households, for whom incomes are as much about earnings from decades ago as about current economic circumstances and for whom our modelling is less certain. It also factors in the distributional effects of housing costs (unlike Figure 38). With mortgage costs set to rise alongside interest rates, the inclusion of housing costs has the effect – in contrast to previous years – of flattening out the growth curve somewhat. Nonetheless, for the bottom 20 per cent to 40 per cent of the non-pensioner population, growth in many years is expected to be weaker than in the rest of the distribution in most years (or even negative).
Section 8: The distribution of growth

It should also be noted that even the strongest growth seen in Figure 39 – around 2 per cent a year in the 2020s for the top of the income distribution – is mediocre by historical standards. No part of the distribution is forecast to have growth higher than its 1994-95 to 2007-08 average, shown in grey.

Figure 40 gives the total projected change in income over the period from 2016-17 to 2022-23. It differs from the charts above in two other important respects. First, the average income of each percentile in 2016-17 is shown, with the median equivalised disposable income being around £26,000. Second, absolute (£) changes in real income over these six years are shown rather than relative (%) growth. This reflects the fact that even if incomes grew for all parts of the distribution by, say, 5 per cent, this would be worth much more in cash terms for higher income households than for those with little income to start with. Both approaches can be useful when thinking about inequality and what distribution of growth should be preferred. Figure 40 shows that the poorer parts of the distribution in 2022-23 may be several hundred pounds poorer than the poorest parts of the distribution in 2016-17, while the richer parts are projected to be thousands of pounds better off.

Figure 39 and Figure 36 show the full results from our modelling in order to allow readers to form their own broad picture of the outlook for income and inequality trends. But it should not be thought that growth for particular percentiles in individual years will be accurate – not least because existing surveys have high margins of error for such specifics (i.e. we may never know the answer to such accuracy) and because our modelling does not capture every relevant trend (see Annex).
The UK is projected to fail to hit the Sustainable Development Goal on inequality

As Figure 38 showed, growth in the bottom 40 per cent of the distribution is projected to be lower than for the rest of the population. Such an outcome would mean missing Target 10.1 of the 2030 Sustainable Development Goals (to which the government committed itself in September 2015), which requires the UK to “progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.”

The government has not yet published a progress report on this goal, but our analysis gives a preview of what may lie ahead (here using per capita income before housing costs). As we showed in an earlier report, the UK likely failed to meet this goal in 2016-17 – the first year since the targets were adopted. Figure 41 shows that the goal is also projected to be missed by a wide margin in 2017-18, 2018-19 and 2019-10, and missed by a smaller margin in the three following years. Retrospectively, we can see that it would also have been missed in 2015-16 and half of the preceding 20 years (consistent with inequality being broadly flat over this period – explored in Section 9).

[53] See https://sustainabledevelopment.un.org/sdg10
[54] See https://sustainabledevelopment-uk.github.io/reduced-inequalities/
The outlook of repeated failure on this target is at odds with the Prime Minister’s statement that the UK “will be at the forefront of delivering [the SDGs] in the UK and around the world.” [56]

Incomes are stagnating for low to middle income working families

In our Summer Audit, we focused on a group of around 8 million families who are in-work but in the bottom half of the non-pensioner population. [57] These low to middle income (LMI) families – around half of whom have children (and who may be couples or singles) – are at the heart of the Resolution Foundation’s work.

We have shown that even before the financial crisis, living standards for this group were stagnating – in part due to rising housing costs. Figure 42 shows that real income growth for this group, like others, was buoyed by low inflation and an improving labour market in 2014-15 and 2015-16. But our projections point to three years of stagnation, with real incomes (after housing costs) falling by -0.1 per cent in both 2017-18 and 2018-19, and flat lining in 2019-20.

[56] Letter from the Prime Minister to 84 companies, February 2017
Looking at the full decade from 2010-11, these projections imply an increase of just £300 (or 2 per cent) in the median income of low to middle income families. That compares with an increase of £1,500 (or 11 per cent) in the decade from 2000-01 to 2010-11. It is also much lower than the increase implied for higher income households in the decade from 2010-11 which, at £3,100 (or 10 per cent), is broadly in line with the increase between 2000-01 and 2010-11 (£3,100, or 11 per cent).

The distributional patterns set out here, with income growth in the bottom half of the distribution set to be lower than in the top half, imply we are set for a period of rising income inequality in the UK. That’s the topic we turn to in the next section.
Section 9

Inequality

Section 8 showed that income growth is not projected to be equally shared over the coming years. Growth at the bottom end of the distribution looks set to be particularly weak, or even negative. Another way of exploring this is through inequality measures. The projections set out in this section show that inequality is expected to rise after 2016-17 on almost all measures.

For the commonly used Gini measure, inequality is forecast to hit levels seen only fleetingly before – in the immediate pre-crisis years. Unlike the rise in inequality of the 1980s, when incomes at the top moved away from those in the middle and the middle moved away from the bottom, the coming period is set to be characterised by sluggish growth across much of the distribution and a ‘leaving behind’ of those at the bottom.

Inequality is projected to rise over the forecast period

While high by international standards UK income inequality has been relatively flat in recent years. As explored in earlier sections, wage inequality has fallen and employment has risen. In addition, the gap that used to exist between typical pensioners and the working-age population has shrunk to nothing.\[58\] Indeed, for some measures that aren’t sensitive to the incomes of the top one per cent, inequality has fallen – but remains far higher than levels in the 1950s, 60s and 70s.

Although the Gini measure of inequality (before housing costs) rose in 2015-16 according to DWP data,\[59\] this has been influenced by temporary tax avoidance behaviours: in this case people bringing dividend income forward into 2015-16 to beat a tax increase (as discussed in Section 6).\[60\] So, although separate ONS statistics showed a small increase in inequality in 2016-17,\[61\] when the (more robust) DWP data becomes available it may well show a fall as this effect unwinds.\[62\]

For 2017-18 and beyond though, the distributions of growth set out in the previous section point clearly in the direction of increasing inequality. Figure 40 shows our inequality projections for household income before housing costs. Alongside the Gini measure (where 0 per cent is perfect equality and 100 per cent is perfect inequality) are ratios between different points in the income distribution, such as the 80/20 ratio: the income of someone 80 per cent of the way up the distribution divided by that of someone richer than only 20 per cent of the population.

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\[58\] A Corlett, As time goes by: shifting incomes and inequality between and within generations, Resolution Foundation, February 2017

\[59\] DWP, Households Below Average Income: 1994-15 to 2015-16, March 2017

\[60\] HMRC, UK Income tax Liabilities Statistics: 2014-15 Survey of Personal Incomes, with projections to 2017-18, May 2017

\[61\] ONS, Household disposable income and inequality in the UK: financial year ending 2017, January 2018

\[62\] This effect from dividend income is not fully captured in our modelling of 2016-17.
On most measures, inequality may have reached a recent minimum (though certainly not a historical minimum) in around 2012-13 or 2013-14. This is also true of relative poverty rates.[63] Compared to a low of 33.5 per cent in 2012-13, the Gini measure (before housing costs) rose to 34.6 per cent in 2015-16 (boosted by dividend income forestalling) and in our projection rises to around 36 per cent by the end of the parliament. Difficulties in both projecting and recording top and bottom incomes add uncertainty to these projections, on top of the underlying economic uncertainties. But at best inequality is forecast to be higher than all but a handful of earlier years.

Although continuous data only goes back to 1961, it should also be noted that income inequality in 1953-54 is known to have been as low as it was in 1961.[64] This gives a period of at least three decades when the Gini index remained (as far as we know) below 27 per cent. In contrast, we are now approaching three decades without it going below 33 per cent – demonstrating the scale and (so far) permanency of the inequality step change that took place in the 1980s.

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Inequality has been trending upwards once housing costs are accounted for, and is projected to rise further still

While Figure 40 showed income inequality before any consideration of housing costs, Figure 41 uses disposable incomes after accounting for rent and mortgage interest. Although there is no single ‘correct’ way to account for the role of housing in living standards, this measure does help reflect differences in housing wealth and in regional costs of living. After accounting for housing costs, inequality is both higher and has – if anything – been trending upwards over the past two decades. In recent years, this has partly been driven by an increasing share of households in the more expensive private rental sector (and those households being more concentrated in the lower part of the income distribution) while those able to buy a home (disproportionately with higher income) have benefited from low interest costs.

In our projections, housing costs do not themselves lead to increases in inequality – with mortgage costs forecast to rise faster than rents – but they do mean the base for further increases is higher. And some policy measures such as the benefit cap and freeze to Local Housing Allowances will mean that an increasing share of housing costs for some of the poorest households will no longer be covered by the state. Again, inequality is forecast to rise on almost all measures.

Figure 44: Inequality is higher if housing costs are accounted for, and is projected to rise

Notes: An expected fall in dividend income in 2016-17 (which would have pushed down on the Gini measure of inequality) is not fully reflected in our nowcast for that year. Years prior to 1994-95 refer to calendar years, years post-1993 refer to financial years.


65] We assume that the housing tenure mix does not change beyond 2017-18.
Both before and after accounting for housing costs, the ratio between those on middle incomes and those on very low incomes (the 50:10 ratio) is projected to rise particularly rapidly. Although data about incomes so close to the bottom of the income distribution is more sensitive to error – both because any errors are proportionally larger and because they rely more on getting benefit income correct (see Annex) – this ratio is conceptually similar to measures of relative poverty (and has historically often moved in parallel with those). As with the distributional impacts explored in Section 8, these trends suggest a new phase on inequality. The experience of the 1980s was for incomes at the top to grow faster relative to the middle, and incomes in the middle grow faster than incomes at the bottom. The growth in inequality over the next five years represents a significant departure with those on low incomes falling behind the rest of the population.

**Absolute gaps between rich and poor are a separate question**

It is worth pausing to note that the above are all measures of relative inequality, and that ‘absolute inequality’ is also worthy of consideration. With measures such as the Gini coefficient or 80:20 ratio, if incomes double for all then inequality remains unchanged. But we might also consider the actual difference in income or consumption between those at p20 and p80, for example. In this case, inequality trends are very different, and a doubling of everyone’s incomes means a doubling of the absolute gap between p20 and p80 – a growing quantity of goods and services that the latter can afford but the former cannot. (This is somewhat akin to the difference between Figure 39 and Figure 40 earlier).

Absolute measures of inequality are given in Figure 42, showing the absolute real gap between p80 and p20 incomes, as well as the ‘absolute Gini coefficient’ which is equal to the relative Gini coefficient multiplied by mean (real) income. In 1994-95, for example, equivalised income at p80 was £17,700 higher than that at p20, in today’s money. But by 2022-23, that gap – and the goods and services it represents – is projected to grow by around £9,000 to £26,800.

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Although not as commonly used, absolute inequality measures provide an alternative perspective on what we mean by inequality. And on these measures inequality is set to rise to record highs as relative inequality rises despite society as a whole becoming richer.

Whatever measure of inequality is used, though, it should be stressed that inequality is – more than most economic statistics – a political choice that can be altered rapidly through government policy. We now look at some alternative policy and economic scenarios that would lead to a better outlook for incomes, inequality or both.
The previous sections have shown that the outlook for household incomes is one of relatively weak growth overall and stagnant or even falling incomes for the low to middle income non-pensioner population. This section explores how sensitive these outcomes are to the economic assumptions used and to the policies chosen by government. For illustration we provide four simplistic scenarios with better tax and benefit policies, higher employment, higher wages and lower rents, respectively. These suggest (unsurprisingly) that household income growth could easily be significantly better were economic prospects to greatly improve, but that rising inequality can likely only be offset by tax and benefit changes. We do not explore the potential for even worse income growth or far higher inequality.

What would it take to significantly change the outlook?

Like any economic projections (in this case making use of OBR forecasts where possible), ours could easily change. The Autumn Budget featured large changes in the OBR’s productivity and earnings forecasts, for example. And there is currently little certainty about the nature of the UK’s approaching departure from the EU – adding extra uncertainty. But some things are easier to predict, such as the effect on low income households of cutting their social security income by thousands of pounds a year.

So how sensitive are our projections to different economic circumstances or policy choices? Below we model four stretching but just about plausible scenarios that beat the outlook for 2022-23 on growth, inequality or both:

» Changes to tax and benefit policies;
» Big further rises in employment;
» Faster-than-expected wage growth; and
» A slowing of private rent growth.

Scenario 1: Progressive tax and benefit changes

Much as they may wish it, the pace of economic growth (and frequency of downturns) is not something politicians can usually change easily. But how growth is shared is hugely driven by their choice of tax and benefit policies (not to mention public services). We model a simple package of policies that does not change our projection for income growth overall but does significantly change its distribution.

This illustrative package involves four changes, most of which would simply mean cancelling cuts that have not yet been rolled out:

» Retaining the family element in UC;
» Limiting the child element of UC to three children rather than two;
» Reversing the UC work allowance cuts for single parents and the disabled; and
» Abolishing the benefit cap.
And to pay for this, we model four increases in direct taxation:

» A rise in all income tax rates (including Scotland’s) by 1p;
» A rise in the top rate of employee National Insurance from 2 per cent to 5 per cent (compared to the basic rate of 12 per cent);
» Increasing self-employed National Insurance rates to match those for employees (but not including employer contributions); and
» Abolishing the marriage tax allowance.

This would not be an easy package of tax rises to sell, and it is only one example of countless ways in which benefits and taxes could be changed in a cost-neutral fashion. It also does not include any changes to the benefits freeze, which would be another obvious way to help low income households. That said, Figure 46 shows the effect that this package would have on our 2016-17 to 2022-23 working-age income growth projections. While our central projection includes incomes for the lower part of the distribution falling in real terms, this scenario would ensure cumulative growth of at least 4 per cent over this period for all parts of the distribution. Despite increases in tax rates, those on higher incomes would still be significantly better off in 2022-23 than in 2016-17 (especially if we were to look in absolute rather than relative terms).

Figure 46: A combination of cancelling welfare cuts and raising taxes is one way in which a flatter distribution of growth could be achieved

Total growth in real working-age disposable household incomes (after housing costs), 2016-17 to 2022-23
This is only one demonstration of the effect that policy could have, and many other ways of raising tax revenue in particular could be chosen (including changes to corporate, wealth and indirect taxes which are far harder to model).

As noted in Section 4, this policy package is in contrast to the government’s stated goals of further increasing the income tax Personal Allowance and (more significantly) the Higher Rate Threshold: policies that will worsen the outlook for inequality but are not included in our modelling as they are not yet formal, funded policy.

The progressive package above would ensure that inequality remained broadly unchanged between 2016-17 and 2022-23, rather than rising.

**Scenario 2: Record-high employment**

As noted in Section 3, the OBR and Bank of England have consistently underestimated increases in employment over recent years. At present the employment rate is at a record high, has not grown for several months and faces demographic headwinds. But there remains (as we noted) significant potential for progress for particular groups and regions, and labour markets are tightening across the rich world. This scenario shows an extreme example of could happen if employment dramatically beat expectations again.

Between the start of 2015 and late 2017, the 16+ employment rate rose from 60.0 per cent to 60.9 per cent. If this trend were to continue – rather than the expected slow decline – then the employment rate would hit a record-smashing (and likely unrealistic) 62.7 per cent in 2022-23. This would equate to an 1,290,000 extra people in work.

To model this, we increase the number of private sector employees in our forecast while reducing the size of the unemployment population (which falls by 41 per cent relative to the OBR forecast) and the non-participating population (which falls by 3 per cent). This crude method does not reflect differences between the current employee population and those who might become employed if employment were to rise further (i.e. the marginal additional employee may be lower skilled and lower paid, for example, but our method does not reflect this).

Figure 47 shows our 2016-17 to 2022-23 projection with and without this employment boost. Incomes (inevitability) grow significantly overall, and the boost is largest at the bottom of the working-age distribution (where employment rates are currently lowest).
Despite this pattern, inequality would still increase relative to 2016-17, but would rise slower than under our central scenario. Again, this is an illustrative scenario rather than a prediction or a proposal. It highlights the extent to which even impressive performance on employment would have only a limited effect on inequality. Of course it is worth targeting higher employment, but it is not a silver bullet.

Scenario 3: Stronger wage growth

We showed in Section 2 that nominal pay growth in the pre-crisis years (2001 to 2007) was around 4 per cent per year, but that the OBR currently projects a return to only around 3 per cent growth, on the back of weak a productivity forecast. With a tight labour market, and some positive recent signs of a productivity pick-up, there is easily room for improvement in this forecast.

We model nominal pay growth rising by an extra one percentage point a year from 2018-19, taking pay growth ultimately back to that pre-crisis norm of 4 per cent. This equates to employment and self-employment incomes being 5 per cent higher in 2022-23 than in our main projection.

This large but plausible change would boost real household income growth to around 2 per cent a year for parts of the distribution (after accounting for inflation of around 2 per cent). But towards the bottom of the income distribution, where earnings are a smaller proportion of household income and marginal rates are high due to benefit means-testing, the growth would be smaller. And some parts of the distribution would still be poorer in 2022-23 than in 2016-17. While having a hugely positive effect on income growth for all, therefore, this scenario would increase inequality even further.
Of course, higher wage growth would provide more tax revenue (and more latitude for additional tax rises) which could be used to ensure all households shared more equally in growth, but for simplicity we assume the tax and benefit system (as well as housing costs, employment and other factors) would remain the same as in our central projection.

**Scenario 4: Slower rent rises**

The OBR assumes that private rents will rise in line with average earnings in future years – rising faster than consumer prices as a whole. But this is not inevitable. Indeed, the latest figures show private rents have risen by only 1.1 per cent in the year to January 2018.\(^{[67]}\) In some parts of the country rental growth is currently even lower, with zero price change in the North East, 0.3 per cent growth in Scotland, and 0.2 per cent growth in London.

Whether such rates can persist will of course depend on countless factors relating to the housing market, broader economy and demographics. Below we model private rental growth of only 1 per cent a year up to 2022-23: i.e. the cost of rents falling relative to other prices and earnings. This would deliver private rents 8 per cent below the OBR forecast by 2022-23. (For simplicity, we do not model the effect of lower rents on landlords or on the cost of housing more broadly.)

This would be a significant boost to household incomes across the working-age distribution, and particularly to the poorer 40 per cent. As with the higher employment scenario, this outlook would reduce the increase in inequality while still leaving the country more unequal in 2022-23 than in 2016-17.

\(^{[67]}\) ONS IPHRP
Of course, to deliver the best outcomes for living standards the UK would need a combination of all of the above scenarios: a more progressive choice of tax and benefit policies; further employment growth; significantly higher pay; and increases in housing affordability. Equally, however, there is still scope for these trends to turn out worse than expected.
Section 11

Conclusion

As 2017-18 draws to an end, all the evidence so far points to a dire year for living standards and poverty – something that perhaps contributed to the unexpectedly poor performance of the governing party in the June 2017 election. As more survey data becomes available we will dig further into changes in living standards since 2016.

For 2018-19, the die may already be cast in terms of the tax and benefit system. But there is a lot that policy can do to beat the outlook for those on lower incomes, not least by making Universal Credit a system for reducing rather than increasing poverty\(^{68}\) – before it rolls out to millions of families – and by ending the benefits freeze before April 2020. With the right policies, it is not hard to imagine the UK having continued high employment, progressive (if not high) wage growth and a turnaround of the housing crisis. But with the scale of cuts to in-work and out-of-work support being rolled out, it is hard to see living standards for low income families standing still, let alone improving.

In future work we will give some focus to the importance of benefits take-up: a key consideration in the possible positive impacts of Universal Credit; a weakness in our own projections; and a significant weakness in existing survey data.\(^{69}\)

Of course, 2018 is likely to be a year of considerable Brexit-related uncertainty, with the UK’s future tariffs, migration policy and regulations – even for 2019-20 – unclear at the time of writing. We can only wait and see how that will play out and its impacts on living standards and inequalities.

\(^{68}\) D Finch, D Tomlinson & M Brewer, *Universal Remedy: ensuring Universal Credit is fit for purpose*, Resolution Foundation, October 2017

\(^{69}\) A Corlett, *Unequal results: Improving and reconciling the UK’s household income statistics*, Resolution Foundation, December 2017
Our nowcasting and projection methodology

The latest household income survey data available to us at present is for the financial year 2015-16. This is the DWP’s Family Resources Survey / Households Below Average Income data.

To assess living standards in 2016-17 in detail, we therefore ‘nowcast’ using what we know from other sources to essentially create a mock-up of the population and incomes in 2016-17. These other – more timely – sources include statistics on inflation; changes in private rents by region; wage growth for different groups (taken from the Labour Force Survey and Annual Survey of Hours and Earnings); employment growth; demographics and shifts in housing tenure. For more information on our nowcasting see The Living Standards Audit 2017.

A similar approach is taken for 2017-18 (the current financial year) and each year up to 2022-23, except of course that the relevant trends are projections rather than outturn data – though in many cases statistics for 2017-18 are now relatively certain (barring radical economic change in early 2018). Where possible we make use of the Office for Budget Responsibility’s (OBR’s) latest forecasts from the Economic and fiscal outlook – November 2017.

As set out in this paper, there are many factors that influence household disposable incomes and therefore need to be modelled. Our approach for projections is as follows. First, for uprating incomes:

- **Earnings** are uprated separately for public and private sector workers using implied OBR figures for each. However, within these we model a progressive distribution to account for the impact the National Living Wage is having on pay.

- For **self-employment income** we use figures implied by the OBR’s projections for mixed income and for numbers of self-employed workers. For future years these match average employee earnings growth.

- **Dividend income** is uprated using outturn ONS figures along with OBR projections for nominal GDP per capita. However, as discussed in Section 9, due to inaccuracies in the underlying survey data we likely underestimate swings in dividend incomes that are expected to have short-term effects on inequality figures.

- **Private pension income** growth is uprated using the historic trend from 2011-12 to 2015-16.

- **Other private income sources** are uprated in line with the OBR’s average earnings forecast.

- We model the **tax and benefit system** in future years using stated government policy (e.g. 2018-19 tax thresholds) and default policy (e.g. CPI uprating in many cases).
  - Council tax is assumed to rise in line with OBR forecasts by nation.
  - We model a mix of Universal Credit and legacy benefit systems, based on the timetable set out in Section 4.
  - We adjust the pace of Universal Credit roll-out to account for the ‘transitional protection’ policy that will apply to some cases who would otherwise lose out when moved to the new scheme, based on OBR projections.
  - We also model the gradual impact of the abolition of the family element and of the two child limit for some benefits by scaling to the latest Treasury figures for
savings in each year.

- As the benefit cap was lowered in November 2016 – part way through the financial year – we model this policy as being partially in place in 2016-17.

- As discussed in Section 5, we do not model changes in the student loan repayments.
- As discussed below, we model expected increases in private pension contributions due to auto-enrolment.

Second, we model future increases in costs and housing spending:

- We create specific household income deflators for both the ‘before’ and ‘after housing costs’ income measures, in line with DWP definitions. To do this we use OBR forecasts for CPI, mortgage interest payment and actual rents.
- Private rents are assumed to rise in line with average earnings, matching the OBR’s assumption. Ground rents and service charges are assumed to do the same. No regional variation is assumed beyond 2016-17.
- Social rents are uprated using OBR forecasts for social eligible rents.
- Mortgage interest is uprated uniformly using OBR projections.
- Other housing costs are uprated using the OBR’s CPI forecast.

Finally, we adjust the make-up of the population beyond 2015-16 to reflect outturn or expected changes:

- We reweigh the population to match ONS forecasts for demographic change by age, gender and region. However, this is adjusted to model changes in the expected numbers of pensioners due to a rising State Pension age.
- We assume no changes in housing tenure shares beyond 2017-18.
- We use the OBR’s forecasts for private employment, public sector employment, self-employment, unemployment and the non-participating population.

As noted in Section 4, we do not include in our modelling the government’s stated intention of raising the income tax Personal Allowance to £12,500 and the Higher Rate Threshold to £50,000 by 2020, as these have not been formally announced or funded.

There are also a number of small benefit policies that we have not included in our model. These include:

- The abolition of housing benefit for under 22s, as in practice there are lots of exemptions.
- The abolition of the tax credit income disregard when moving to Universal Credit, given it applies to within year variations in income and survey data provides a point-in-time estimate.
- Changes to waiting periods in Universal Credit, for similar reasons, although the recent removal of seven waiting days will have reduced any effect of these relative to the legacy system.
- The switch of mortgage interest support from a benefit into a loan.
- A number of policies in Scotland: increases in Council Tax Reductions, a cancelling out of the ‘bedroom tax’, a supplement to Carer’s Allowance from April 2018, and a ‘Best Start Grant’ from 2019 for low income parents.
- The introduction of Tax-Free Childcare and the extension of an additional 15 hours of free childcare to working parents of three and four year olds, in part due to underreporting of

[70] J Browne, Reweight2: Stata module to reweight survey data to user-defined control totals, IFS, July 2012
childcare in the *Family Resources Survey*.

To model changes in disposable household incomes using all the inputs discussed above, we use the IPPR tax-benefit model.

It is important to note that our modelling includes an assumption of full take-up of benefits. While this has some merit in itself as a measure of ‘potential living standards’ for families, in reality take-up is not complete. Our forecasts therefore overstate slightly the impact of benefit changes (in this case cuts), while missing the assumed benefits of Universal Credit in terms of boosting take-up.

A different approach has been taken in other modelling\(^\text{[71]}\) – whereby reported take-up in the household surveys is used – but this is known to underestimate take-up and therefore underestimate the impact of benefit changes and overstate the positive impacts of Universal Credit.\(^\text{[72]}\) The overall outlook – of weak growth and rising inequality and poverty – is certainly shared by both approaches, however. Improving on both of these methods will be a focus of future work.

### Modelling auto-enrolment

For the first time, we model the impact of the roll-out of auto-enrolment (i.e. higher pension saving) on disposable household incomes over the next few years.

In doing so, we are forced to make some simple assumptions about which groups of non-savers in 2015-16 have become savers since then. As shown in Section 5, the number of people auto-enrolled has grown substantially, to 9.3 million. And the DWP says the eligible target group for auto-enrolment was around 11 million people – made up of those who were not members of a pension (but were of the right age and income) and those whose current contributions were too low. To model this population, we begin by identifying 5 million employees in the *Family Resources Survey*: people who are not a member of a pension scheme, are between ages 22 and state pension age, work in the private sector, and earn above £10,000. We then identify a further 4.5 million whose wages and pension contributions in the *Family Resources Survey* imply a contribution rate of below 5 per cent (of total salary). This is necessarily a rough approach but produces overall results that match up well with separate DWP modelling.\(^\text{[73]}\)

To model the impact of more pension contributors in 2016-17 and 2017-18, we impute new pension contributions – at 1 per cent – for a fraction of that group that is currently not saving.

For 2018-19, the number of contributors is again increased (relative to 2017-18 as a whole), and then contribution rates for all those identified above are raised to the new minimum of 3 per cent salary above the Lower Earnings Limit (up to the Higher Rate Threshold). Some account is made for the fact that contributions in the *Family Resources Survey* may be inclusive or exclusive of income tax relief. For 2019-20, minimum contributions are raised to 5 per cent.

The impact of these increases in contributions on individual and household disposable incomes is then deduced through the IPPR tax-benefit model, accounting for income tax relief.

Section 5 discusses these impacts in detail, as well as potential reasons why this modelling may be too conservative or too radical. On balance, we believe our approach is conservative about the impact of auto-enrolment – as in practice contributions thus far have gone beyond the legal minimums modelled here (particularly in terms of the calculation of pensionable salary).

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\(^{[71]}\) e.g. A Hood & T Waters, *Living standards, poverty and inequality in the UK: 2017-18 to 2021-22*, IFS, November 2017

\(^{[72]}\) A Corlett, *Unequal results: Improving and reconciling the UK’s household income statistics*, Resolution Foundation, December 2017

\(^{[73]}\) e.g. DWP, *Automatic Enrolment Review 2017: Analytical Report*, December 2017, Fig 4.1
Resolution Foundation

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» undertaking research and economic analysis to understand the challenges facing people on a low to middle income;
» developing practical and effective policy proposals; and
» engaging with policy makers and stakeholders to influence decision-making and bring about change.

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