

# Inequality & Inclusive Growth

# Inequality and Inclusive Growth

## The Case of the UK

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**Abstract**

This chapter sets out how inequality and household incomes evolved in the UK in recent decades, and the extent to which different periods saw very different outcomes in that regard. The very sharp increase in inequality seen in the early/mid-1980s was followed by broad stability, but still meant that inequality has been at a substantially higher level since then than through the preceding decades. Substantial growth in real incomes was seen over the period from the mid-1980s to the mid-2000s, though fluctuating within those years, but wages and household incomes flatlined in the years coming up to the economic crisis and were significantly hit by it. Prospects for the future are even more concerning in light of recent price inflation, further cuts to working-age benefits in prospect, and the impact of Brexit.

**Keywords**

inequality; living standards; deindustrialization; squeezed middle incomes; housing market; working-age benefits; wage stagnation; productivity.

# 1 Introduction

The nature of inequality and the extent to which the gains from economic growth have been felt across households has fundamentally altered in the United Kingdom over recent decades. The ‘classic’ inequality of the 1980s in which relatively strong growth underpinned a stretching out of the income distribution—with the top moving away from the middle and the middle moving away from the bottom—has been replaced by a generalized slowdown in income growth that has affected large parts of the income distribution, with only a minority at the very top immune.

This shift has brought with it a new, majoritarian, focus on the issue of living standards and raised fundamental questions about the need for economic growth to be distributed more fairly (Corlett, 2017; Cribb et al., 2013; Hills, 2015; OECD, 2015; Parker, 2013; Plunkett et al., 2014), as well as calls for a new emphasis on human development rather than growth per se (Beatty et al., 2016; Rubery et al., 2017). While most people may be willing to tolerate a higher level of inequality during times when their living standards—whether poor, middle-income or wealthy—are rising, sustained stagnation changes such passive views.

This altered image has many different drivers and consequences, but four inter-related themes stand out and are the focus of this chapter.

The first is the radical slowdown in wage growth since the mid-2000s, following three decades of relatively even gains. This slowdown is a significant drag on real-terms household incomes given the importance of income from employment. Moreover, while the post-crisis wage squeeze has been experienced by individuals across the entire wage distribution, it is younger workers in particular who have faced the worst pay outcomes.

A second related theme concerns evidence of uneven changes in the demand-side structure of jobs that impact adversely on both wage levels and wage inequality. Two factors are relevant: upgrading and polarization of the employment structure which changes the pattern of opportunities for low-, middle- and high-wage jobs; and public-sector reforms which have produced a rise and fall in numbers employed with particular consequences for women's access to middle and high-wage jobs.

A third theme in the UK narrative is the expansion of precarious forms of work against a backdrop of weak trade unions, minimum regulatory standards (governing employment and welfare rights), and strong employer prerogative. Insecure forms of employment compound problems of income inequalities and constrain future earnings prospects for many people who become trapped in unstable job trajectories.

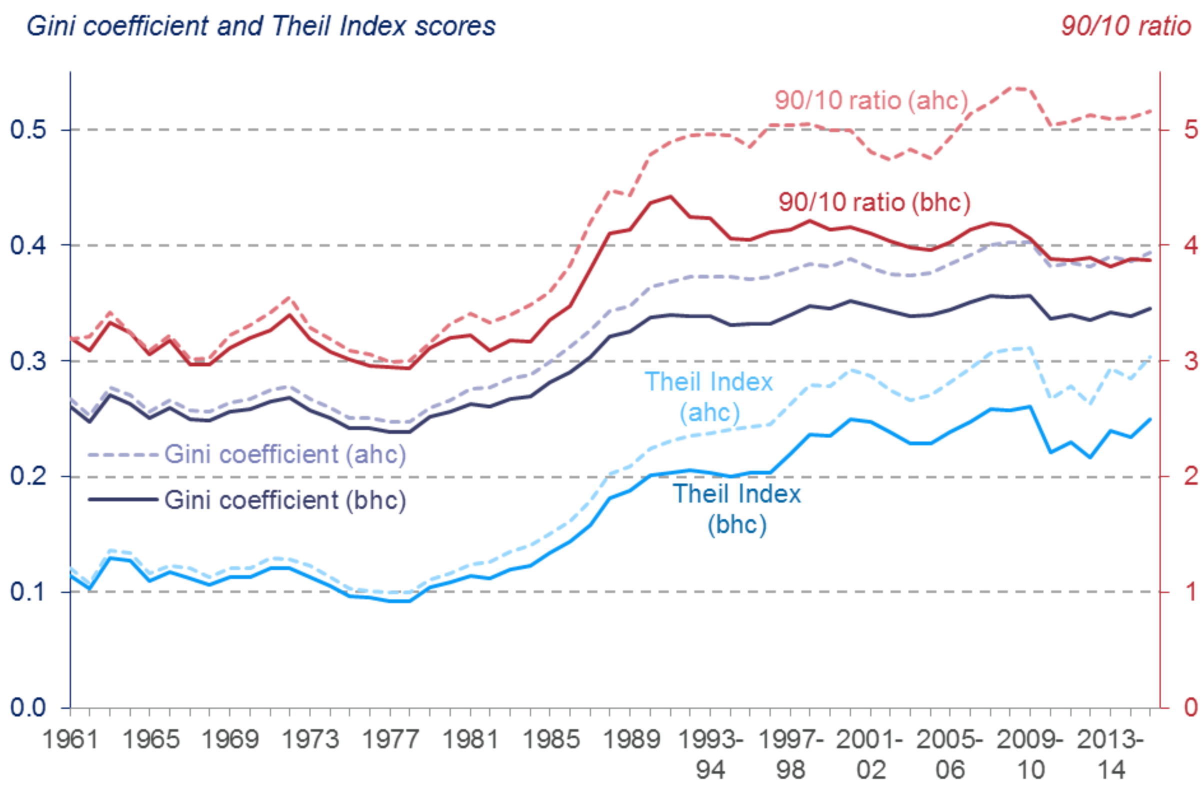
Finally, the spending power of UK citizens' incomes has been depleted in the last two decades (especially pronounced in the pre-crisis years) by the rising share spent on housing costs, both among renters and for owners reliant on bank loans. Because the cost-to-income ratio is higher among low- and middle-income households, income inequality estimated after housing costs is even greater than before housing costs.

Before addressing these specific themes, the chapter begins with an analysis of long-term inequality trends, utilizing the alternative indicators outlined in the book's common analytical framework.

## 2 Income Inequality Trends: High, but Largely Unchanged in the Last Quarter Century

On any number of measures of household-income inequality, relatively little appears to have altered in the United Kingdom over the past twenty-five years. But this is very different from saying that inequality doesn't matter in the country. Indeed, high-level inequality is not simply an economic outcome, it is instrumental in shaping the evolving character of UK economy and society. As Figure 1 shows, inequality—whether captured via the Gini coefficient, the Theil Index or the ratio of the 90th percentile to the 10th—was broadly flat in the 1960s and 1970s but picked up extremely sharply over the course of the 1980s. The relative lack of movement since the early-1990s means, therefore, that the United Kingdom continues to stand out on the international stage as a highly unequal country (see Chapter 1).[1]

**Figure 1: Equivalised household income inequality before and after housing costs**




Source: Institute for Fiscal Studies analysis of DWP, *Family Resources Survey*

Two other things are apparent from Figure 1 however. First, different measures present subtly different versions of the recent past. For example, inequality continued rising through the 2000s when using the Theil Index, but was flat using the Gini and fell a little when using

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[1] According to OECD data, the United Kingdom sits seventh out of thirty-six countries (behind Chile, Mexico, United States, Turkey, Israel, and Estonia) in terms of its before-housing-costs Gini coefficient.

the 90/10 ratio. However, it is worth noting that inequality fell on all three measures immediately following the financial crisis, remaining lower today than in 2007.

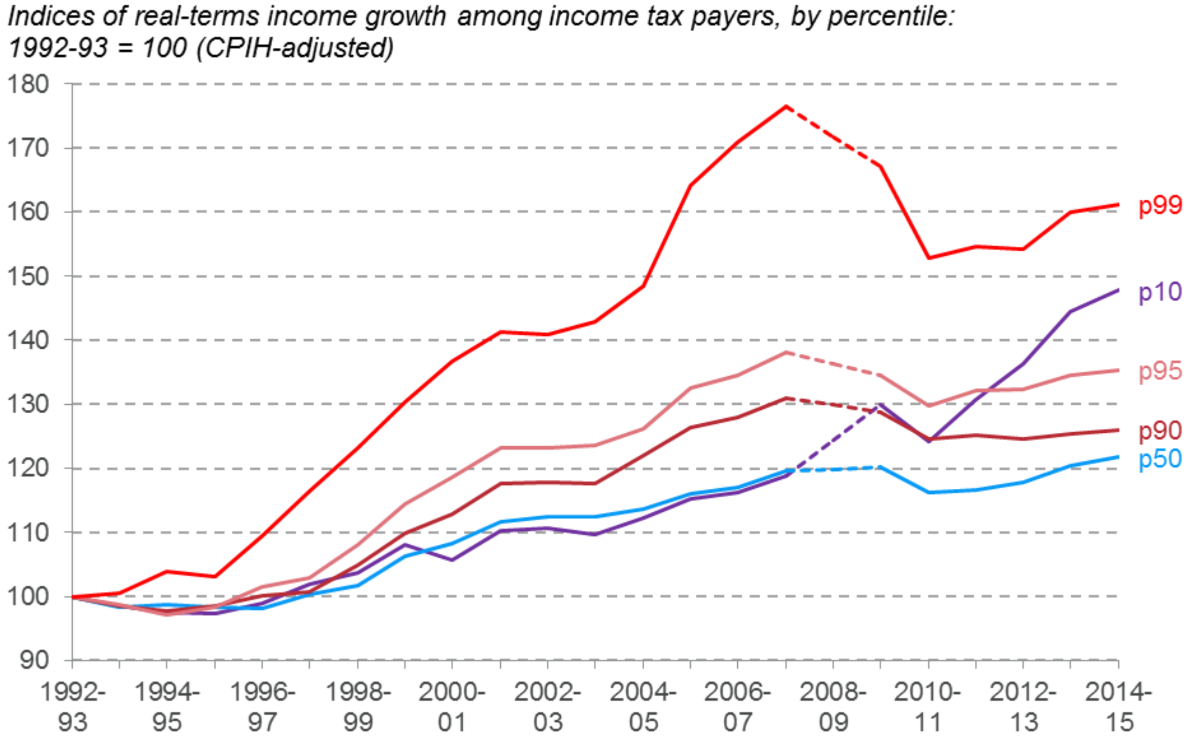
The second thing to note from the chart is the difference that shows up when switching from a before-housing-cost (BHC) measure of income to an after-housing-cost (AHC) one. The latter measure is calculated in the *Family Resources Survey* which underpins these numbers by directly deducting the net cost of housing—in terms of mortgage interest, rental payments, and other incidental housing costs—from each household's disposable income. Accounting for housing costs paints a picture of inequality that continued to rise after the 1980s—albeit more modestly than it had done in that decade—on each of the different measures shown. The divergence between the solid and dotted lines goes some way to highlighting just how important the United Kingdom's housing crisis has been in the living-standards story of recent decades. We return to this issue later in the chapter.

## Other Divides Have Come under the Spotlight in Recent Years

Whichever measure we use, it is apparent that UK income inequality has been broadly stable since the upheaval of the 1980s—at least relative to what came before. But in addition to remembering that this apparent stability is at a level which many would consider too high, it is also worth noting that much has been going on beneath the surface.

For example, the pre-crisis period in particular was also characterized by an increasing divergence between the experiences of the very top of the income distribution and everyone else. Figure 2 compares income growth at different points in the taxpayer income distribution. The composition of this population has shifted somewhat in recent years, thanks to government policy which has increased the point at which income tax becomes payable at a faster rate than pay has grown, thereby removing significant numbers of individuals from the taxpayer population. This compositional shift has had a particularly marked effect on recorded incomes towards the bottom end of the taxpayer distribution (as is clear from the recent acceleration of the P10 line in the chart). What is apparent, however, is the extent to which the real pre-crisis story was one of the detachment of those with the very highest incomes from the rest of society.

**Figure 2: Indices of individual incomes among income tax payers**




Notes: Data for 2008-09 is missing, so a straight line is drawn through this point in all instances (denoted by the dotted lines). Top income trends are affected in recent years by pre-announced changes in the top rate of income tax which provoked the bringing forward of income in some years and deferment into others. All income trends are affected by recent above-inflation increases in the level of income at which tax becomes payable, which has generated a compositional shift in the taxpayer population.

Source: HMRC, *Survey of Personal Incomes*

Incomes grew a little more quickly at the 90th and 95th percentiles than they did at the median and 10th percentile between 1996 and 2007, but growth at the 99th percentile dwarfed all others. These top incomes also fell much more sharply than any others in the immediate post-crisis period, but they have since grown again and the gap to the rest of the distribution remains large. In cash-terms (in 2016–17 prices), incomes at the 99th percentile increased from £102,300 in 1992–3 to £180,500 in 2007–8, standing at £165,000 in 2014–15.

This £62,600 increase over the period is roughly equivalent to the total income recorded at the 93rd percentile in 2014–15.

Although hard to capture on a consistent basis, this divergence between the super-rich and the rest of society is traced back further still in the World Wealth and Income Database. Having fallen over much of the twentieth century, the share of income (derived from tax data) accounted for by the top 1 per cent more than doubled between 1979 and 1997. Further increases over the early-2000s took the share back to levels not recorded since before the World War II. The sharp increase broadly matched the trends observed in the United States and Canada, and left the United Kingdom's top-income share just behind those two countries heading into the financial crisis.

The runaway success of the top 1 per cent in the pre-crisis years stemmed in large part from the financialization of the United Kingdom's economy in this period. The 'Big Bang' in the City of London in 1986 sparked a significant increase in the role of financial and related services in the United Kingdom and generated substantial increases in top pay and in shareholder returns. With finance acting as an engine of growth in the two decades after 1986, the growing rewards of the top 1 per cent were largely viewed as unproblematic by politicians on all sides. Perceptions changed rapidly following the crash of 2008 though, with growing recognition of the damage that under-regulated financialization had caused (Engelen et al., 2012; Pendleton and Gospel, 2014).

Risk-taking in the finance sector contributed to a surge in lending to households over the period, stoking rapid house-price growth and a spending boom which later transformed into a debt-overhang that dragged on the United Kingdom's recovery from the crisis. The increased focus on shareholder value and the emergence of powerful private equity funds also contributed to growing short-termism within business and chronic under-investment that slowed UK productivity growth (Appelbaum et al., 2013). It is also likely to have contributed to the wider erosion of worker power experienced over this period which we discuss further later in this chapter. While large increases in the incomes of those at the very top also helped to support UK tax revenues during the growth years, the volatility of those incomes over the course of the downturn exposed the vulnerability of the public finances to a marked narrowing of the tax base.

The growth of the top 1 per cent also matters from the perspective of inequality because it is very hard to accurately record in household surveys. The survey data used throughout this chapter includes an adjustment based on administrative data in order to account for this difficulty, but the adjustment is imperfect and appears to under-report actual trends (Burkhauser et al., 2017). As a result, the income trends set out in Figure 1 are likely to under-state both the level of inequality in the United Kingdom and its pace of change over the last twenty years.

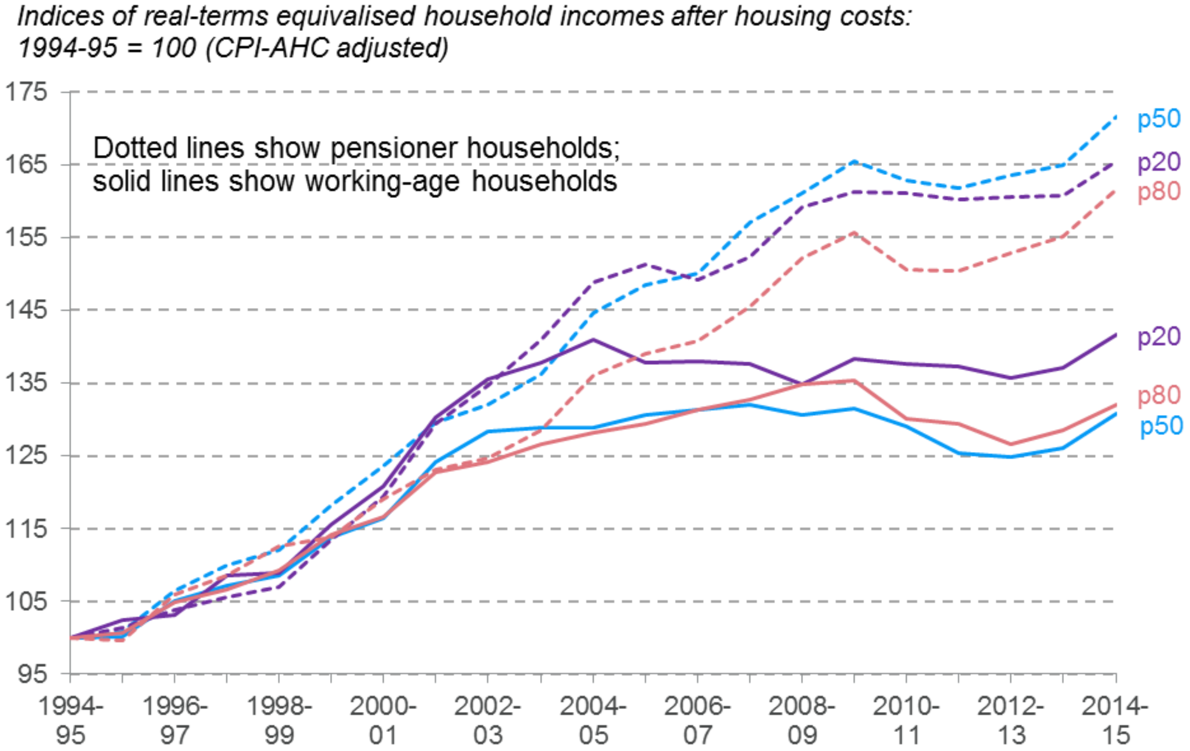
Another feature of note beneath the United Kingdom's headline inequality measures is the level of geographic division that exists. Inequalities across locations are wide and have become more marked over time. For example, the ratio of gross disposable household income (GDHI) per person between the top and bottom of the United Kingdom's 173 NUTS3 areas stood at 4.1 in 2015—up from 3.1 in 2003.[2]

The other divide that appears to have become more prominent over recent years in the United Kingdom relates to age. Several problems are visible, with younger cohorts increasingly locked out of what used to be considered normal forms of asset-building—home ownership and generous defined-benefit pension schemes for example. Younger people have also experienced the biggest pay squeeze in the aftermath of the financial crisis and have

[2] ONS, 'Regional gross disposable household income (GDHI) by local authority', figures adjusted for inflation using CPIH.

borne the brunt of recent fiscal tightening. Cuts in the generosity of working-age benefits that have been mapped out over the next few years stand in direct contrast with increased benefit-spending per pensioner. As a result, recent income growth has tended to be weaker for working-age households than for pensioners, as Figure 3 highlights. In addition, the steady cohort-on-cohort improvement in incomes and living standards that characterized so much of the twentieth century appears to have gone into reverse in recent years (Corlett, 2017; see below).

**Figure 3: Indices of equivalised incomes among working-age and pensioner households**




Notes: CPI-AHC deflator is a variant of the CPI that removes housing elements in order to match the after-housing-cost nature of the income measures shown here.

Source: DWP, *Family Resources Survey*

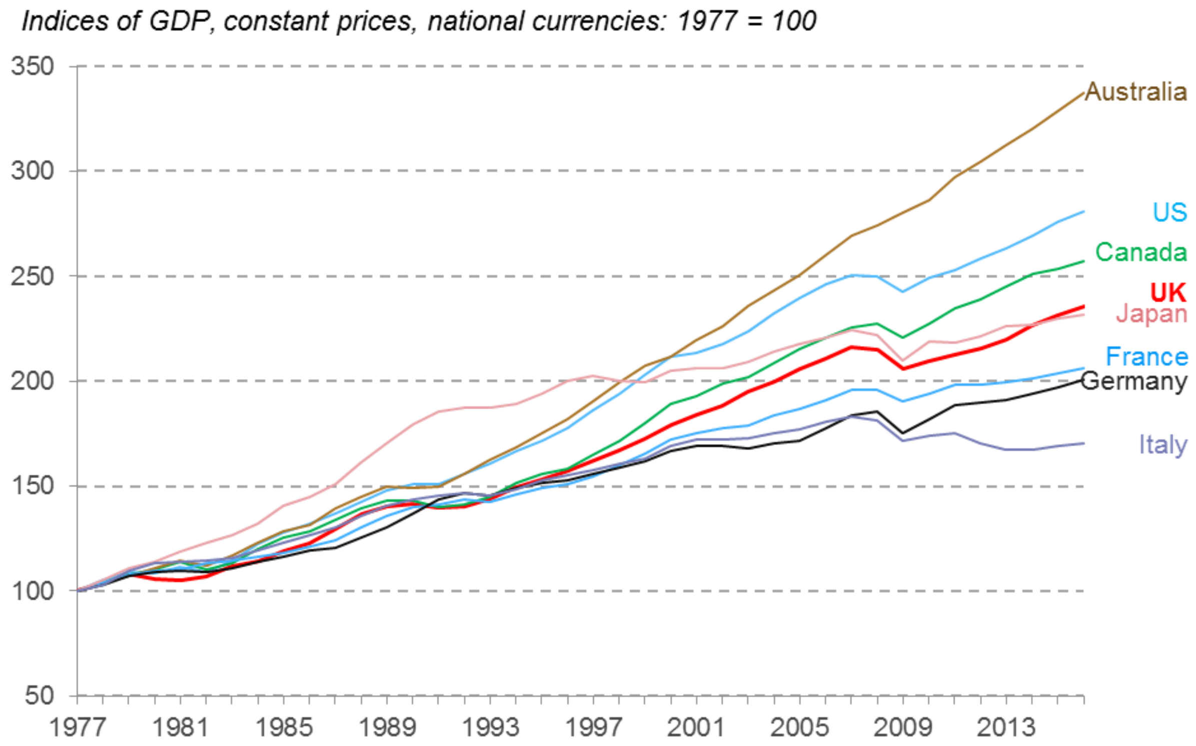
There is of course much overlap between these observed divisions, and it is hard to unpick precisely how much is related to the fall-out from the financial crisis and how much is more structural in nature. However, there is little evidence that these partitions are unwinding quickly and—importantly—some of these factors formed key lines along which the UK vote in the EU referendum was split (Clarke and Whittaker, 2016).

## Apparent Stability on Headline Inequality Masks Four Distinct Living-standards 'Episodes' in Recent Decades

That economic tensions such as the ones described earlier feel a little heightened in the United Kingdom currently must owe something to wider trends in living standards. That is, while overall income inequality may not have risen in any significant way since the early-1990s, the already large gap between rich and poor has taken on new meaning as a combination of global economy, demographic and political pressures has pushed back on income growth across most of the distribution. What matters to the lived experience of households is both the distribution of growth *and* its overall level.

In terms of overall trends in GDP, Figure 4 shows that the United Kingdom has been something of a 'middle of the pack' performer over recent decades. Growth has not quite kept pace with that recorded in Australia, the United States, and Canada, but the United Kingdom has outstripped Japan and a range of other European countries such as France, Germany, and Italy. The country has endured three distinct slowdowns in this period, with the 2008 financial crisis-inspired downturn proving significantly deeper and more sustained than both the 1980 and 1990 recessions. Outside of these periods, GDP growth appears to have been fairly steady.

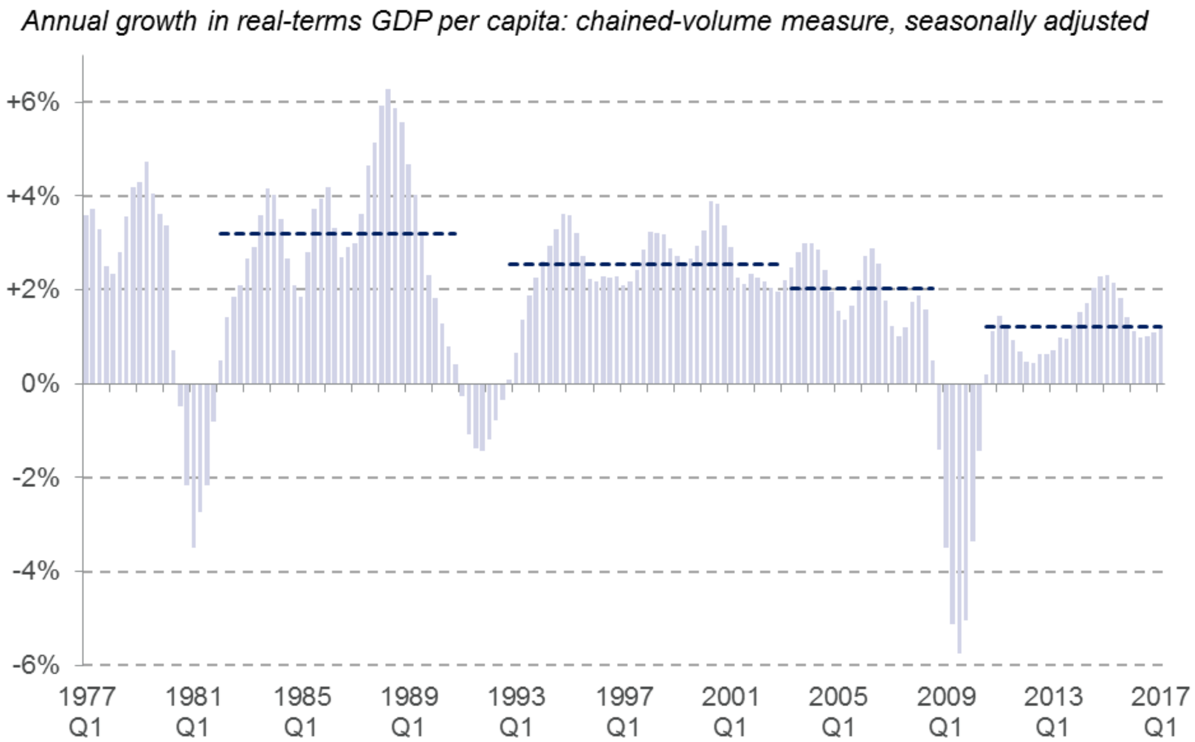
**Figure 4: Indices of gross domestic product in selected countries**




Source: OECD

However, the United Kingdom’s headline GDP tells only part of the story. Measured on a per capita basis, average growth rates have fallen over time. As Figure 5 shows, GDP per capita growth averaged 3.2 per cent a year during the 1980s and 2.5 per cent a year during the 1990s. This average then fell to 2 per cent in the years before the financial crisis and has dropped to just 1.2 per cent a year since 2010.

**Figure 5: Growth in annualised GDP per capita**




Source: ONS, series IHXW

Not surprisingly, these step-changes in GDP per capita growth have translated into distinct periods for household-income growth. Set alongside different phases of inequality, this has had a profound effect on the experiences of income growth recorded across different parts of society. As Figure 3 suggested, the backdrop for discussion of living standards appears to have been particularly cloudy for working-age households in recent years. Focusing on this part of the population, Figure 6 divides recent UK income growth into four broad ‘episodes’:

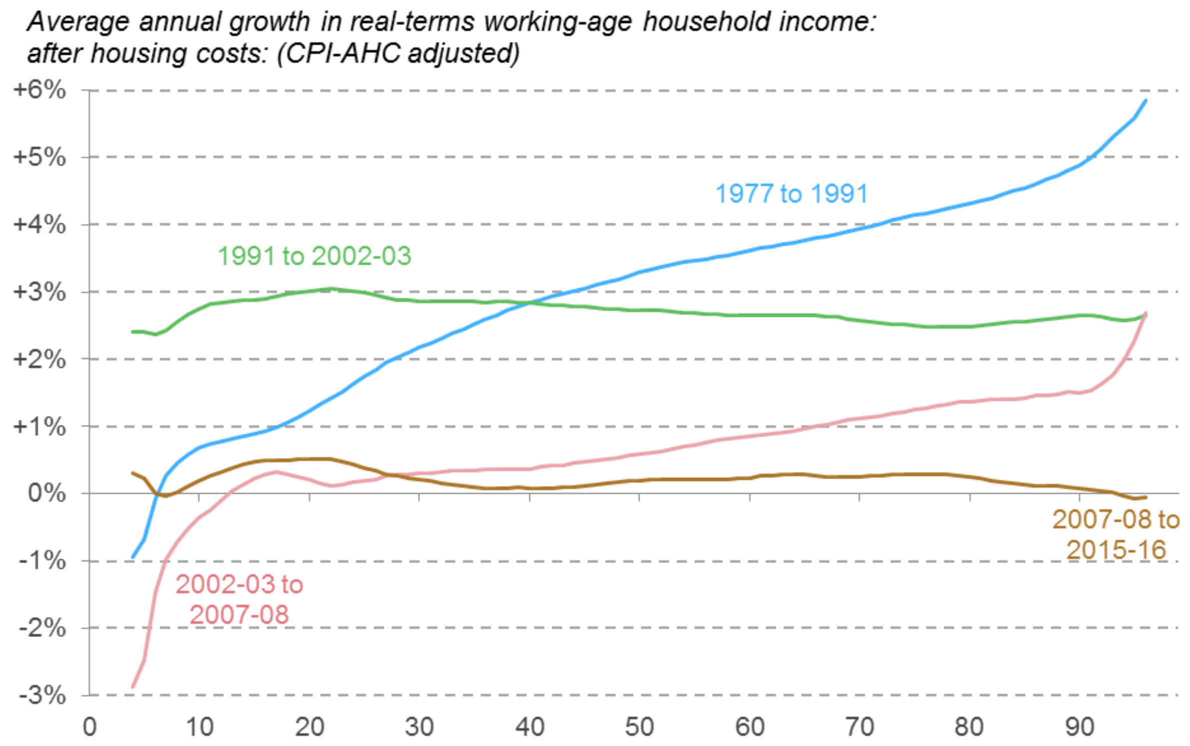
i) ***‘Classic’ inequality in the 1980s***: Relatively strong growth underpinned a stretching out of the income distribution—with the top moving away from the middle and the middle moving away from the bottom. Average annual income growth of 4 per cent to 5 per cent a year in real-terms at the top end of the working-age income distribution contrasted with average growth towards the bottom of 1 per cent to 2 per cent a year. While the country became much more unequal, however, it is worth noting that income growth was present for all but the very bottom end of the distribution. Indeed, approaching three-quarters of the working-age distribution enjoyed real-terms growth in excess of 2 per cent a year over this period.

ii) ***Strong, shared growth in the 1990s***: Average income growth broadly matched that recorded in the 1980s, but gains were much more evenly felt. Average annual income growth of around 3 per cent a year was recorded across the entirety of the working-age distribution.

iii) ***Pre-crisis slowdown in the mid-2000s***: Income growth slowed markedly between 2002 and 2007, averaging just over 0.3 per cent a year in the middle of the working-age distribution. Those at the top fared better, though average annual growth of just 1.5 per cent at the 90th percentile remained much weaker than the norms that had prevailed in previous decades. Although broadly flat across most of the distribution, there was also evidence that the bottom 5th fell further behind in these years, with incomes falling year-on-year at around the 15th percentile. Rising housing costs appear to have played an especially important role here, with a much flatter distribution of income growth being recorded across the bottom half when measured BHC.

iv) ***Post-crisis income squeeze***: Incomes fell sharply between 2007 and 2012 before recovering slowly thereafter. Welfare protection at the bottom end and the tendency of the highest earners to lose most during financial crises meant that inequality actually fell a little over this period. But the backdrop of a generalized income squeeze meant that such an outcome provided little cause for celebration.

**Figure 6: Growth incidence curves for equivalised household incomes**




Notes: There is a break in the income series recorded here, with missing values for 1992 and 1993. The data before 1992 is not directly comparable with the data from 1994 onwards. CPI-AHC deflator is a variant of the CPI that removes housing elements in order to match the after-housing-cost nature of the income measures shown here.

Source: DWP, *Family Resources Survey*

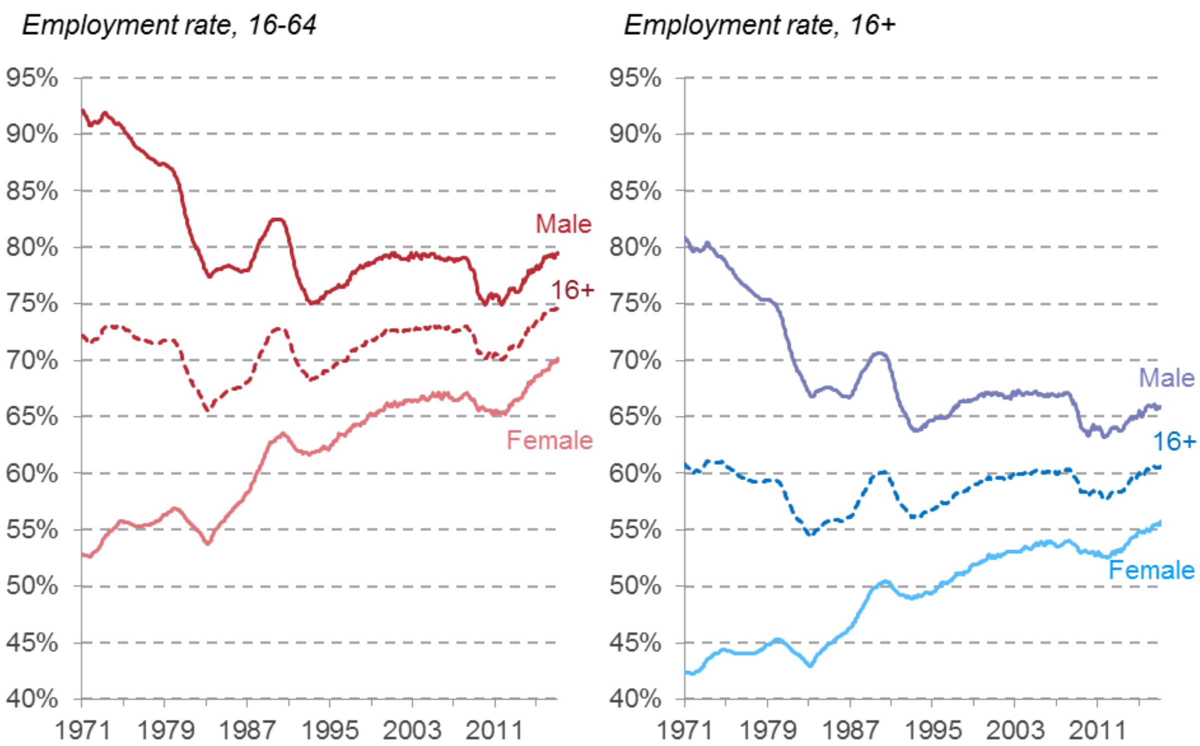
What is clear, irrespective of whether we include housing costs or not, is that income growth has stagnated over much of the twenty-first century across large parts of the working-age distribution. Inequality may not have shifted much since the early-1990s, but the disappointing performance of UK income growth in recent years is all too evident.

Later we describe the underpinnings of this twentieth-century income disappointment and consider what might come next. We look in turn at the major living-standards levers, from what goes on in the labour market to interactions with tax-and-benefit policy and changes in the cost of living. Different factors have come to the fore in different periods but, worryingly, there is some suggestion that the country may be facing an unprecedented perfect storm of flatlining employment growth, a renewed wage squeeze, and cuts to working-age benefits in the coming years.

# 3 From Uneven Wage Growth to Generalized Wage Stagnation

Over the course of the past four decades, the United Kingdom has undergone something of a turnaround in terms of its employment reputation. Figure 7 tracks both the 16–64 and 16+ employment rates over the period from 1972. It shows that the former fell from around 73 per cent in the mid-1970s to a low of 65.6 per cent in 1983. Having recovered broadly back to its mid-1970s level by 1990, it then fell again during the early-1990s downturn—this time reaching a trough of 68.3 per cent. A strong recovery in the 1990s was followed by a plateau during the 2000s.

**Figure 7: UK employment rate**




Source: ONS series MGSR and LF24

But it is the post-crisis period that really merits attention. While the employment rate fell as the economic downturn hit, the drop was smaller than most economists predicted. And the subsequent recovery in employment has been extremely strong, with the 16–64 employment rate regularly breaking new records. Some of this improvement has been driven by increases in the female state-pension age over recent years, but the broader 16+ employment rate has also grown strongly since 2013 and it is noticeable how much both female *and* male employment rates have risen in this period. The United Kingdom is now third only to Germany and Japan within the G7. Looking more widely across Europe, only Sweden, the Netherlands, and Denmark can be added to the list of countries outperforming the UK.

The pace of the United Kingdom's jobs recovery has sparked some questions about the *quality* of the employment being entered into (e.g. Corlett and Whittaker, 2014; Findlay et al., 2013; Gregg et al., 2014; Grimshaw et al., 2017; Heyes et al., 2017). These concerns resonate especially given the backdrop of worryingly stagnant productivity growth in recent years and form a topic we return to later. Nevertheless, the employment gains made in recent years have been impressive. And, by bringing many people from lower-income households into the workforce, the country's employment performance has been strongly pro-poor. Between the mid-1990s and the early-2000s, employment gains were evenly shared across the household income distribution; but the improvement recorded since 2013–14 has been skewed towards the bottom half of the income spectrum (Gardiner and Gregg, 2016).

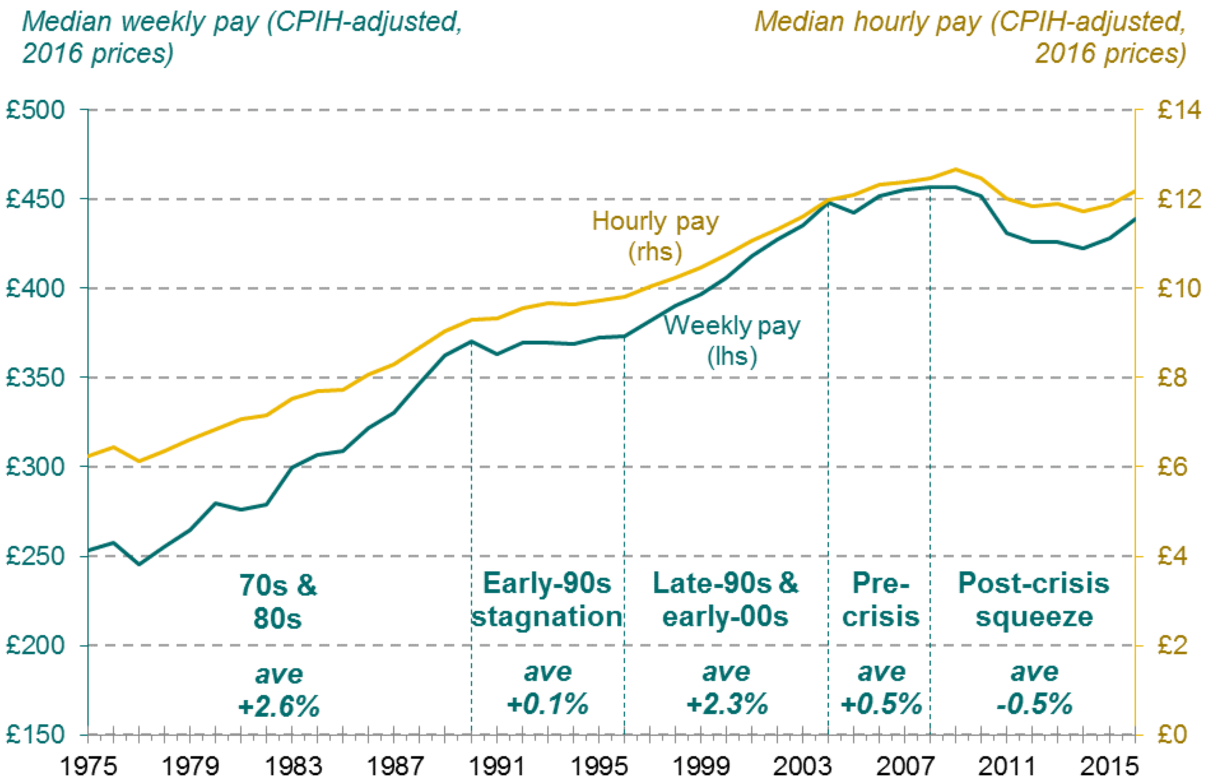
There are, however, finite income gains to be made from increased employment. The United Kingdom's employment rate could potentially be pushed higher still, but such gains slowed markedly during 2016 and 2017. With this in mind, the other vital part of the labour market equation relates to pay. And in this area, recent UK performance has been nothing short of appalling.

Adjusted for inflation, average weekly pay fell for six years following the onset of the financial crisis in 2008, lowering average annual pay by more than £1,500. With inflation falling towards zero in 2015, real-terms pay recovered a little, though there was little sign of any ‘rebound’ that could restore any of the ‘lost years’ of pay growth. More recently, the wage squeeze has returned. Higher inflation—a product of both rising oil prices and the depreciation of sterling following the EU referendum result—has dragged on what was already sluggish *nominal* pay growth such that average earnings are once again falling in real terms. The gap from the pre-crisis peak remains around £820, and is unlikely to be closed until the end of 2022. As such, a lost decade of pay growth looks set to become a lost fifteen years.

So deep and sustained has been the post-crisis pay squeeze, that earnings growth averaged over the decade is currently the worst recorded in the UK for 150 years (Corlett et al., 2017). With little prospect of any rapid improvement in this growth, the performance of UK wages is on course to be the worst in 210 years by the end of the decade, meaning we would need to look to the Napoleonic era for a worse record (Whittaker et al., 2017).

Focusing in on the forty-year period of interest in this chapter, Figure 8 sets out trends in real-terms median pay on both an hourly and weekly basis. The post-crisis dip is immediately apparent, and stands in contrast to the more muted nature of prior slowdowns. But what’s also clear is that pay growth had already slowed markedly in the years immediately prior to the crisis. Real-terms growth in median weekly pay averaged just 0.5 per cent a year between 2004 and 2008, less than one-quarter the pace averaged between 1996 and 2004. This combination of pre-crisis slowdown and post-crisis squeeze means that weekly pay in 2016 only just matched the levels it had previously reached in 2003.

**Figure 8: Median gross pay among UK employees**




Notes: Pay data relates to April each year. Pay deflated using CPIH which became the Office for National Statistics' main measure of consumer inflation from 2017. It is identical to the CPI measure of inflation, but adds in a measure of Owner Occupied Housing (OOH) costs.
Source: ONS, NESPD & ASHE.

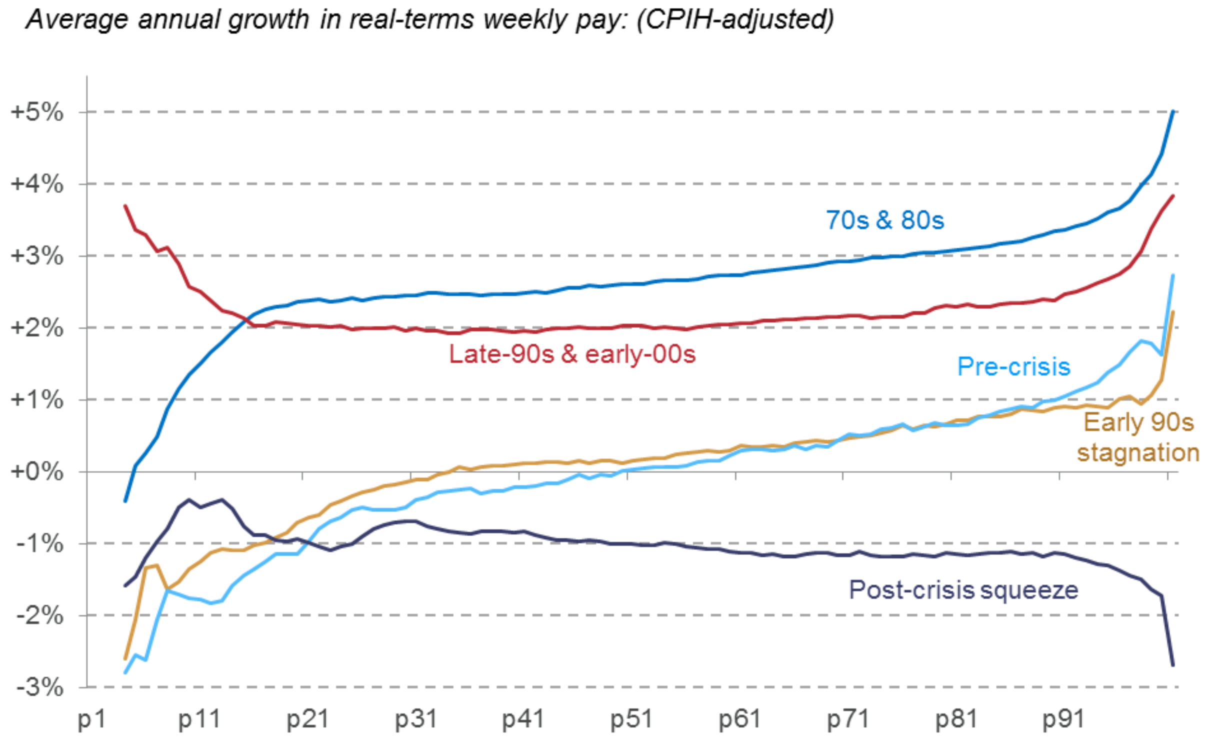
The pre-crisis slowdown in *hourly* wage growth was a little less pronounced—implying that the weekly pattern owed something to changes in average working hours too—but it is observable nonetheless (average annual growth of 1.1 per cent between 2004 and 2008 compared with growth of 2.5 per cent in the period from 1996 to 2004).

Sticking to these same periods of wage growth, Figure 9 shows how pay has varied across the weekly earnings distribution since 1975.[3] In line with the income growth curves set

[3] We focus on weekly pay because it is most directly relevant to household living standards. Hourly pay distributions present a similar picture, though pay growth is noticeably stronger at the bottom

out in Figure 6, we see that overall growth was strongest in the 1980s and late-1990s. The former period was again characterized by widening inequality while the latter reflected more evenly shared growth, in part reflecting the introduction of the National Minimum Wage in 1999. The pre-crisis slowdown and post-crisis squeeze also describe familiar shapes, with the former being most marked towards the bottom of the earnings distribution and the latter being felt harder at the top.

**Figure 9: Growth incidence curves for weekly employee pay**




Notes: Pay deflated using CPIH which became the Office for National Statistics' main measure of consumer inflation from 2017. It is identical to the CPI measure of inflation, but adds in a measure of Owner Occupied Housing (OOH) costs.
Source: ONS, NESPD & ASHE.

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of the earnings distribution (and marginally stronger in the middle and at the top) from the late-1990s. This occurs because the hourly analysis removes the effect of an increasing shift towards part-time working over recent decades.

We should not expect the wage distribution to map directly onto the working-age household income distribution: many lower-paid people live in higher-income families. Nevertheless, the relative similarity between the curves set out in Figure 6 and Figure 9 highlights the extent to which weekly wage patterns have been central to the overall story of growth and inequality in the United Kingdom.

The generalized slowdown in wage growth from the early 2000s has two apparent sources. First, there is the drop in GDP per capita growth (and an associated slowdown in productivity growth) depicted in Figure 5. This effect was most marked after the start of the financial crisis—with UK productivity growth over the last decade being the worst for 120 years (Corlett et al., 2017)—but was evident in the pre-crisis years too. The second source is less immediately visible, representing as it does the development of a 'wedge' between what employees produce and what they get paid. The 'decoupling' of productivity growth and pay growth that has characterized the US living-standards story since the 1970s is not present in the same way in the United Kingdom, but there *has* been a definite shift in this relationship in the United Kingdom in the twenty-first century.

This shift owes much to changes in the valuations from the early 2000s onwards of defined-benefit pension schemes run by employers. Improvements in longevity, weak asset returns, and a reduced discount rate all served to increase the cost of funding such pensions and exposed significant deficits which employers are obliged by law to plug. The labour share of income has increased over this period, implying that firms have responded to these pension deficits in part by lowering profits. But, while the overall share of national income flowing into employee compensation has increased, the share accounted for by pay has not. The 'leakage' has instead come in the form of increased non-wage compensation.

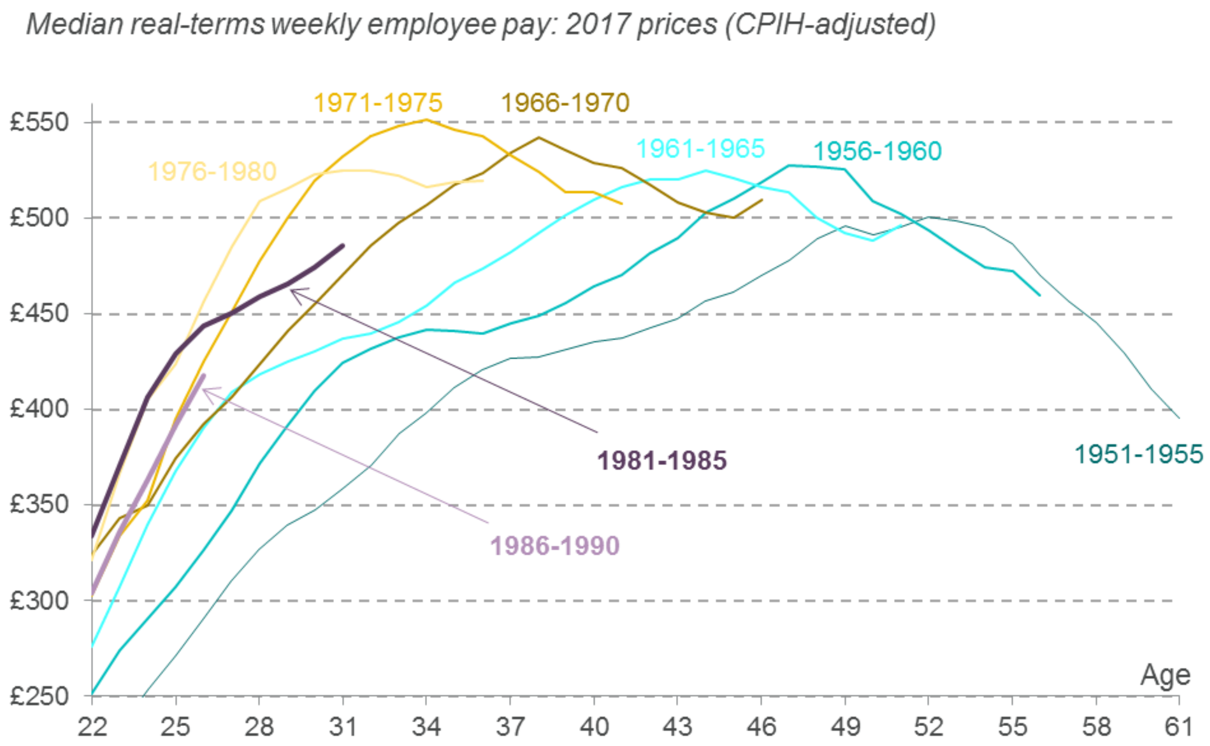
Before 2000, non-wage elements accounted for 13 per cent of total employee compensation on average; but this share rapidly increased thereafter, topping 18 per cent in

2012 and remaining just under 17 per cent in 2016. Relative to the pre-2000 average, this elevated share of compensation accounted for by non-wage employer contributions was equivalent to around £37 billion. By far the biggest driver of this increase—accounting for £26 billion of the overall £37 billion increase in 2016—was employer pension contributions. To the extent that this plugging of pension deficits has simply shifted employee remuneration from pay in the here and now to deferred rewards at retirement, we might be relatively sanguine about the impact on living standards. There is, however, evidence to show that deficit funding disproportionately benefits older workers and those who have already retired (with most defined-benefit pension schemes now closed to new members)—and that some younger, lower-paid workers have suffered a direct pay penalty despite never having been members of their employers' pension scheme (Bell and Whittaker, 2017).

With this in mind, the fact that wages have performed so poorly over such a sustained period bodes particularly badly for younger groups. While all age groups have been affected by falling pay in recent years, declines have been sharpest for workers in their twenties and thirties.

As Figure 10 shows, the effect of recent pay trends is to lower typical wage trajectories for recent cohorts relative to their predecessors at the same age. But for workers born in the 1980s, the timing of the pay slowdown means that they have been on lower-wage paths than previous cohorts since the moment they joined the labour market. As such, the cohort-on-cohort wage growth that characterized the twentieth century appears to have gone into reverse. While most cohorts are now earning around the same as those ten years before, the younger cohorts are earning substantially less than peers ten years earlier, reaching pay levels of peers fifteen years previously for the very youngest. Given the importance of the first few years in work to an individual's lifetime pay trajectory in the United Kingdom—most of the biggest pay increases over the course of a career arrive early on—the concern is that recent events could have a scarring effect on younger workers (see Oreopoulos et al., 2006 for the United States).

**Figure 10: Median pay by age for each five-year birth cohort**




Notes: Figures for each cohort are derived from a weighted average of estimates by single year of age for each single-year birth cohort; cohorts are only included if all five birth years are present in the data. For the years in which it is available, published Annual Survey of Hours and Earnings pay estimates (which cover the UK as a whole, as opposed to the microdata which only covers Great Britain) are used as control totals, and the results from each individual dataset are indexed to those from the Annual Survey of Hours and Earnings to create a consistent series over time.
Source: ONS, LFS, NESPD & ASHE.

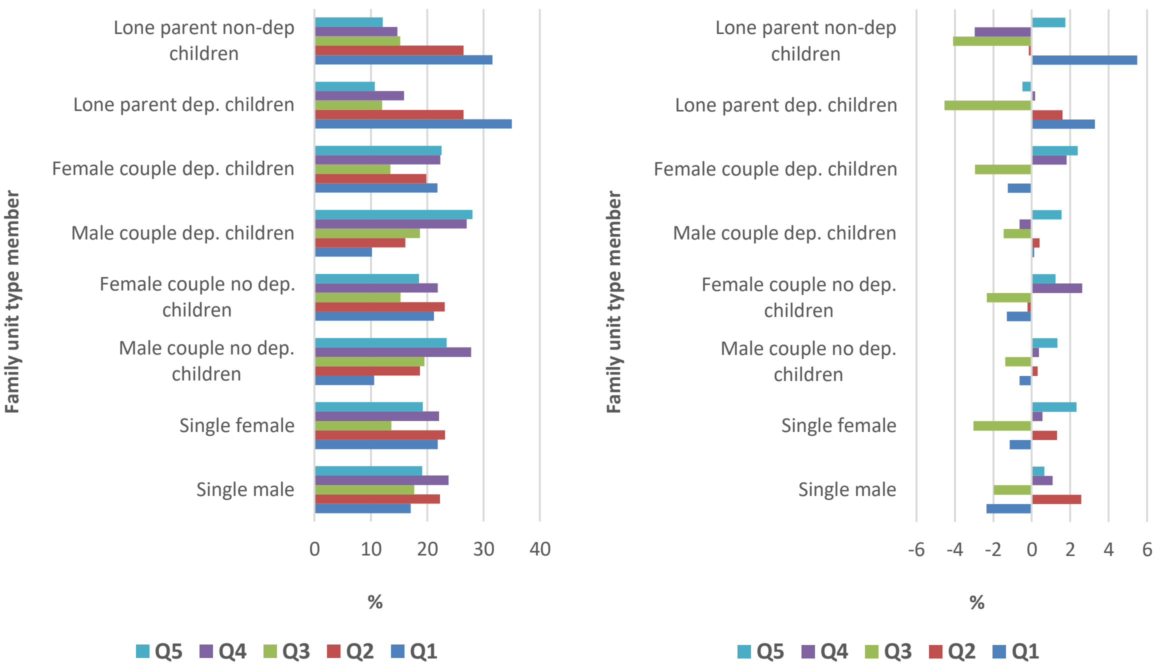
Wage inequalities also differ by type of household and family unit, as well as between members of these units. We know that women are over-represented among low-wage jobs and men over-represented in high-wage jobs. Roughly one in five employees in the United Kingdom are officially 'low paid' (that is, they earn less than two-thirds of median hourly pay). But this figure rises to one in four among women and nearly two in five among women working part-time. This is high relative to other European countries (Gautié and Schmitt, 2010), yet a marked improvement on the situation in earlier decades, with one in three women being low paid as recently as 1996 (with that figure climbing to half among those working part-time). Over the same period, the proportion of male employees earning less than the low-pay threshold has remained fairly constant—standing at 16 per cent in 2016. Nevertheless, female employees continue to account for 61 per cent of the total low-paid population (Clarke and D'Arcy, 2016).

Figure 11 shows us low pay is especially prevalent among single parents, nine out of ten of whom are women. The finding is in part due to the fact that single parents in the United Kingdom are more likely on average to come from socio-economically disadvantaged backgrounds and have lower levels of educational attainment than coupled mothers (Rowlingson and McKay, 2002). However, it is also likely to reflect interactions between welfare policy, the affordability and availability of childcare, and possibility of employment participation.

Furthermore, during the economic recovery between 2011 and 2016 single parents recorded the biggest increase among family-unit types in terms of their representation in the lowest-wage quintile jobs. In contrast, coupled mothers experienced an improvement in their representation in the highest two wage quintiles. This may in part further reflect compositional change in the employed population as formerly economically inactive single parents moved into employment due to welfare reforms. But it may not just be in relation to pay that younger workers and single mothers in employment find themselves disadvantaged. Changes in the nature of work over recent years are also fundamentally altering the offer open to those at the start of their working lives, as we show in the following section.

**Figure 11: Job wage quintile by family unit member type**

a) 2016 b) Change 2011-16




Source: UKLFS Micro-datasets, authors' calculations.

# 4 Job Polarization, Upgrading, and Income Inequality

There is a clear relationship between wage trends and the pattern of inequality and stagnation in household incomes, yet our understanding requires further interrogation of what might explain how such a divergence of labour-market earnings has occurred. Both in the United Kingdom and internationally one likely important factor concerns the hollowing-out of middle-income/skilled jobs and the relative increase in employment at the top and bottom of the wage distribution (OECD, 2017). Potential explanations include a shift in demand towards higher-skilled and/or less-routinizable employment, globalization bearing down disproportionately on both wages and job opportunities in lower-skilled occupations, and demographic change in the labour market (Berman et. al., 2008; Fernandez-Macias et al., 2012; Goos and Manning, 2007; Holman and Rafferty, 2017).

An increased demand for higher-skilled work driven by technological change could lead to an upgrading of employment opportunities where relative growth in the number of higher-paid jobs occurs (Eurofound, 2015). However, technology has differential impacts depending in part on the extent to which jobs involve tasks that can be routinized and substituted by computer algorithms or robotics. This means that in addition to growth in higher-skilled jobs, such as professional and managerial positions, a range of jobs involve tasks that are more difficult to routinize. For example, many low-wage jobs (e.g. cleaning, social care, health and beauty) require cognitive skills, which are typically not remunerated fairly but nevertheless offer some protection in the immediate term against routinization and substitution by computer technology.

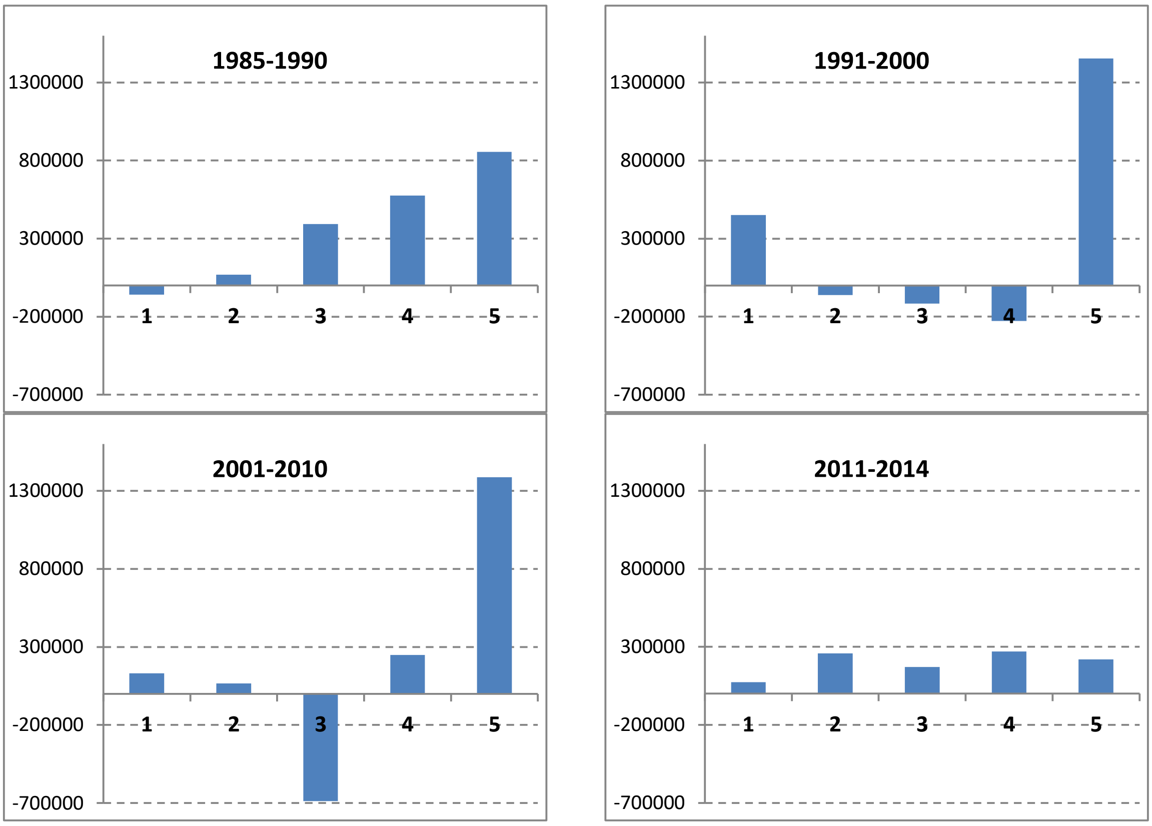
The effects of technology may, under certain institutional and economic conditions, therefore lead to a polarization of the labour market through growth in higher- and lower-skilled jobs and a hollowing-out of the number of middle-level positions that are more technologically substitutable (Fernandez-Macías, 2012; Salvatori, 2015; OECD, 2017). Globalization may further negatively impact on middle-level jobs disproportionately such as through heightened import competition or the offshoring of employment, although internationally such effects appear smaller than those of technological change, disproportionately affecting manufacturing jobs more than services (OECD, 2017). In contrast there may be disincentives to offshoring higher-skilled sections of production or service systems (e.g. research and development activity) to low-income countries that lack the educational infrastructure and/or broader skilled workforce required for such activity, providing greater protection for jobs at the higher end of the income distribution from offshoring. Some lower-skilled service jobs are also afforded some protection from offshoring this time by the requirement of proximity between provider and customer (e.g. hairdressing and other personal services).

In terms of demographic trends, growing levels of employment, in particular higher-paid female employment, may further contribute to the polarization picture through increasing the number of lower-paid service-sector jobs associated with the marketized, defamilization of care and domestic work. Examples include the expansion of jobs in childcare services, social care (such as for the elderly), domestic cleaning, and convenience retail (e.g. supermarkets and since the 2000s Internet retail). An erosion in the number of middle-income jobs could also in itself lead to a greater segmentation of the labour market and suppress wages in the lower job wage quintiles where they become increasingly deskilled and/or disconnected in their career structure and advancement opportunities for higher-paid work opportunities (D’Arcy and Hurrell, 2014; Grimshaw et al., 2002).

Examining the changing distribution of jobs by pay levels over time provides insights into these questions at least in terms of the overall pattern of changing employment structure. Here we draw on the widely used ‘jobs method’, first applied to the United States (Wright and Dwyer, 2003). The method takes detailed information on occupations (here 4-Digit SOC) and combines this with industry information (1-Digit SIC) to identify a set of jobs that describe the demand-side structure of the labour market. Median pay data define job wage quintiles at a given time point. Levels of growth or decline in each quintile over time can then be examined to consider the extent to which employment growth occurred through changes in the number of lower-quintile, middle-quintile, or upper-wage-quintile jobs. Below we use job median wage rates calculated from the Annual Survey of Hours and Earnings (ASHE) at four time points (1985, 1991, 2001, and 2011), reflecting breaks in the underlying occupation variable, to this effect.

In terms of overall trends, Figure 12 shows that between 1985 and 1990, a period associated with some of the largest increases in household-income inequality, an upgrading of employment occurred through a disproportionate increase in the number of jobs in the upper three quintiles. This trend is consistent with a skill- (or routine-) based shift in the demand for employment towards higher-skilled workers and stagnation of growth in lower-skilled and lower-paid occupations. Then, during the 1990s and the 2000s the shift towards higher-skilled employment was again reflected through the largest growth in jobs occurring in the top wage quintile. What distinguishes these two periods from the late 1980s is that the number of 3rd quintile jobs fell, reflecting a hollowing out of middle-wage jobs, and bottom quintile jobs grew. The 1990s fit most closely the profile of job polarization with growth occurring in both the top and bottom quintiles. During both decades, the pattern can be described as ‘upwards-biased polarization’. A similar pattern (1995–2007 data) was registered for Germany, while France, for example, witnessed ‘symmetrical polarization’, Denmark and Sweden ‘structural upgrading’, and Spain ‘balanced expansion’ (Fernández-Macías, 2012). The reasons for such heterogeneity are complex, and include institutional factors (especially influencing low-wage employment) and economic structural factors.

**Figure 12: Absolute change in employment by wage quintile (number of workers), 1985-2014**




Source: Annual Survey of Hour and Earnings (ASHE) and UK Labour Force Survey (UKLFS), authors' calculations.

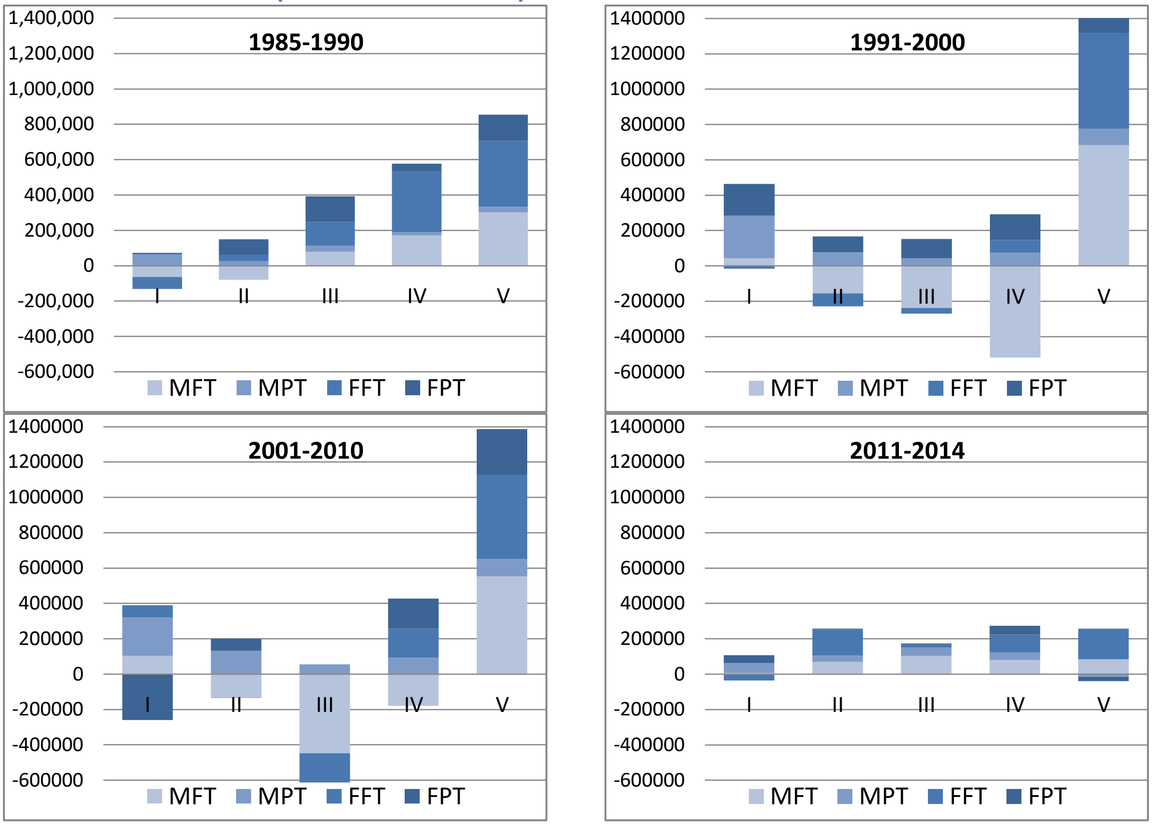
While insightful, job-quintile trends are unlikely to map directly on to household-income patterns over time for a number of reasons. Firstly, given wages are fixed in this method to a given time point, a change in the number of people in a given wage quintile does not tell us anything about whether job wage levels between and within quintiles were converging or diverging. For example, in addition to increased demand for higher-skilled employment leading to an increase in the number of jobs in the top quintile it could further lead to a growing divergence in levels of pay between higher-skilled and lower-skilled workers and so between the top and bottom quintiles.

A second reason is that income levels and inequality are typically measured at household level whereas job polarization trends reflect the individual employment level. As noted in Section 2, the effects of changing labour-market structure upon household-income inequalities are likely shaped by the changing distribution of paid work over time between ‘work-rich’ and ‘work-poor’ households, such as between two-earner, single-earner, and no-earner households. Despite these methodological complexities, an increased demand for skilled employment in the United Kingdom if anything is likely to have contributed to increasing disparities between work-rich and work-poor households, albeit offset in practice by other factors such as a rising minimum wage and, during the 2000s, more generous in-work tax credits. This is because those coupled households containing more highly skilled members are more likely to be dual-earner households and work-rich at the household level in terms of their levels of participation compared to lower-skilled households who are more likely to be work poor (Berthoud, 2007).

Consequently, in order to understand the potential linkages between changes in labour-market structure and household-level inequality it is important to understand how changing patterns of participation between households and between men and women within households map on to trends in lower- and higher-paid work. If we disaggregate the overall job quintile trends by gender, then we find that during 1985–90 a large proportion of the growth in upper-quintile jobs was associated with female full-time employment followed by male full-time employment (Figure 13). This trend generally held for the next two decades (1991–2010). Growth in higher-paid female employment may therefore have contributed to labour-market income disparities between higher-skilled dual-earner coupled households and other household types.

During the 1990s and 2000s, male full-time employment suffered major drops in middle- and fourth-quintile jobs, and as such it is male full-time employment that largely represents the hollowing-out of the labour market. The nature of jobs recovery during 2011–14 deserves special mention. It is notable that the pattern of job change among female part-time workers changed significantly from the preceding 2001–10 period when they made substantial gains at the second, fourth and especially fifth quintiles—a clear pattern of job upgrading. Then, however, during 2011–14 both female and male job gains were more diffuse across the quintiles albeit with men enjoying greater upgrading than women.

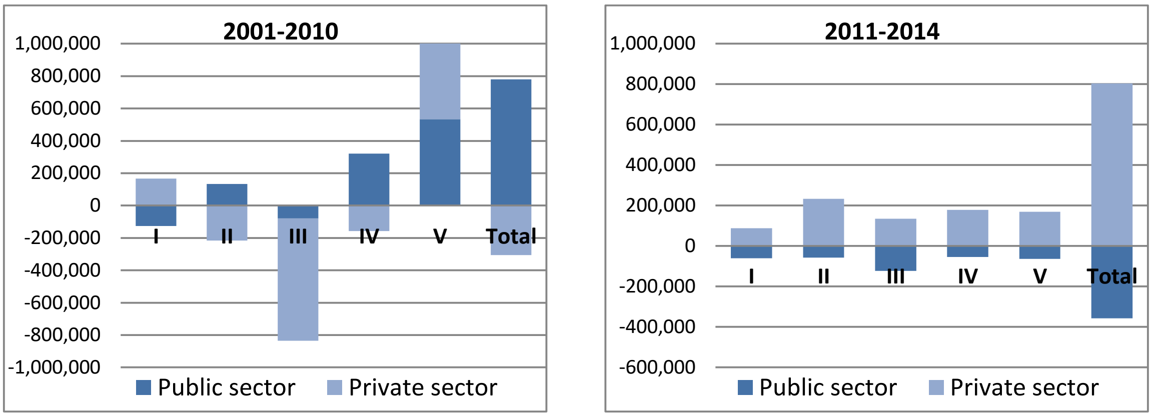
**Figure 13: Absolute change in employment by gender and full-time/part-time by wage quintiles, 1985-2013 (number of workers)**




Source: Annual Survey of Hour and Earnings (ASHE) and UK Labour Force Survey (UKLFS), authors' calculations.

Growth in public-sector employment has been important for increases in skilled and higher-paid employment, particularly for women (see, also, Grimshaw and Figueiredo, 2012). Figure 14 shows the contribution of public-sector jobs to the changing job structure. Until 2010, public-sector jobs expansion reinforced the overall pattern of job upgrading, especially at the fourth quintile where private-sector jobs collapsed during 2001–10. Indeed, without public-sector job growth it is clear that the pattern of private-sector job change fits a classic pattern of job polarization, albeit upwardly biased. The 2011–14 pattern of job change is different. For all five quintiles, public-sector job loss is matched by larger-scale private-sector job gains. What is absolutely remarkable is that in just four years the Conservative-led coalition government, elected in 2010, oversaw a reversal of public–private fortunes: during 2001–10 the volume of private-sector jobs fell by 310,000 and public-sector jobs expanded by 780,000, while during 2011–14 the private sector expanded by 800,000 jobs and the public sector fell by 380,000. The allocation of job gains and losses of private- and public-sectors jobs is distributed relatively evenly among quintiles, but not among men and women since women are over-represented among public-sector jobs.

**Figure 14: Contribution of the public and private sector to changing jobs structure by quintiles, 2001-2013**




Source: Annual Survey of Hour and Earnings (ASHE) and UK Labour Force Survey (UKLFS), authors' calculations.

The UK government's post-2010 drive to cut public expenditures and the size of the public-sector workforce was sold to the public with a media narrative of austerity reforms and the need to rebalance the economy (Berry, 2015). There is debate as to the efficacy of reforms. It is nevertheless clear that the government has repeatedly fallen short of its forecasted debt-reduction plans. Each year the government forecasts a soon-to-be-reached peak in the rising share of national debt as a share of GDP, but the following year the projection is pushed further back to accommodate the higher-than-anticipated debt level.[4]

The spending cuts have targeted the core areas of local government and police, as well as to a lesser extent education and the civil service. Office of National Statistics (ONS) data show that austerity cuts shrank the local government workforce by a quarter during 2010–16 (from 2.18 million to 1.66 million) and police by a sixth (from 281,000 to 236,000). The scale of change has generated a broad consensus among employers and unions that the public sector is no longer a haven for stable employment (see Bach, 2016; Grimshaw and Rafferty, 2016); for example, public-sector employers in 2016 made more use of compulsory redundancies (as a proportion of all downsizing) than in the private sector (see Section 5). Moreover, government imposed cuts in real earnings (initially via a pay freeze and then an ongoing 1 per cent cap on annual wage settlements) have reduced the contribution of public-sector employment to household living standards. Because women make up the majority of public-sector employees, as much as 76 per cent in local government, the attack on the public sector is interpreted by many as reversing much of the progress on gender equity in the

[4] In 2010, the Office for Budget Responsibility (OBR) forecasted public sector net debt would peak at 70% of GDP in 2013–14 and then begin to fall. This was not met; it turned out to be much higher (80%, excluding public sector banks) and still rising. Each year, therefore, the OBR has adjusted its forecasted peak in line with steadily rising debt. Latest data for June 2017 record actual net debt at 87% of GDP (£1,754 billion). In line with past practice, the March 2017 OBR Economic and Fiscal Outlook has revised its estimates and now forecasts a peak of 89% of GDP in 2017–18. The government has, however, reduced public sector net borrowing; having peaked at 9.9 per cent of GDP in 2009–10, it has since fallen significantly and the government has pledged to eradicate the deficit by the middle of the next decade.

United Kingdom, especially towards more balanced dual-earner households (Rubery and Rafferty, 2010), a critical ingredient in striving towards a model of inclusive growth.

## 5 Precarious Work: How Have Employment Insecurities Shaped Income Inequality?

Alongside job polarization, a third theme is the transformation of employment relations in many sectors of the economy. A widely acknowledged downside of the United Kingdom's flexible labour market is its propensity to generate high levels of insecurity, in a variety of changing forms, among a large share of the workforce. Current research and policy attention, for example, focuses on the insecurities experienced by zero-hours contract workers, gig-economy delivery workers who put up with irregular workloads, temporary agency workers seeking to gain a more stable foothold in employment, subcontracted workers whose employment stability can be undermined by business outsourcing decisions, and low- and mid-wage workers unable to sustain regular wage increases. These varied forms of employment insecurities impact significantly on UK household income and, as we explore in this section, on the shape of income inequality because of the uneven distribution of insecurities.

Employment insecurities arise as the combined result of job characteristics and specific properties of the labour-market and welfare-policy environment (Heery, 2000). The former concerns, for example, the risk of redundancy, use of temporary contracts, or irregular working hours; recent research, for example, suggests job insecurity is now as much to do with anxiety about job status as about the risk of job loss (Gallie et al., 2017). While not all indicators of employment insecurities display a secular rise over the last three decades, the net effect has been a trend rise with a corresponding adverse effect on inequalities and stagnation of household incomes.

The labour-market and welfare policy environment has also deteriorated in recent years. It includes the degree of protective regulation provided by labour law and trade unions, the level of welfare support provided by unemployment and other welfare benefits, and the scarring effects of job loss (for example, to what extent unemployment carries a stigma among employers).

A detailed review is beyond the scope of this section, but basic core protections for UK workers are on the whole relatively weak compared to other European countries with similar GDP per capita. Almost all measures have weakened further since 2010 (see Box 1), the result of both political preferences within successive Conservative-led governments and an economic focus on fiscal consolidation and 'austerity' (see Section 3 above). The net result is a heightened risk of income losses as a result of employment insecurities. Table 1 provides a summary.

*Box 1. Summary of Post-2010 Reforms That Have Weakened Employment and Welfare Protections*

In international comparisons, the United Kingdom scores around average in terms of its statutory minimum-wage protection (level and enforcement) and basic-income assistance to unemployed individuals with families to support (according to OECD 2014 data). But it provides only very limited individual statutory protections (level and coverage) for employment protection, unemployment support, and maternity leave (albeit with a welcome extension to the right to shared leave with fathers) and workers enjoy few opportunities for collective representation by trade unions. The following lists the many types of employment and welfare protections that the UK government has chosen to cut in an ongoing succession of reforms implemented since 2010 that have targeted the poorest and most vulnerable people in the UK:

- **Employment protection rights** have been reduced considerably since 2010 from an already low level: reforms cut the consultation period for collective redundancies from 90 to 45 days, doubled the period from 12 to 24 months for eligibility to unfair dismissal rights, introduced fees of £1,200 to take a case to the employment tribunal (e.g. on the grounds of sex discrimination), and reduced the scope of Transfer of Undertakings Protection of Employment (TUPE) protections for subcontracted workers.
- **The share of workers in trade unions has fallen** from around one third in the early 1990s to around one quarter in 2015, nudged on in part by unsupportive legislative reforms since 2010, which include restrictions on the right to strike and obstacles to the fair payment of union membership fees. In addition, there is a long-standing trend of employers in the private sector withdrawing from collective bargaining, such that in 2015 only 16 per cent of employees had their pay and other protections fixed by collective bargaining. This is a major problem given the general lack of institutional protections for wages, aside from the statutory national minimum wage; even the chief economist at the Bank of England has pointed to the growing share of workers in the United Kingdom who are not protected by unions and therefore do not benefit from a union wage premium as a key factor explaining sluggish real wage growth.[5]
- **Job search and job subsidies funding** has been cut and services privatized. Reforms include the abolition in 2010 of both the Young Persons' Guarantee and the return-to-

[5] Speech in June 2017 by the Bank of England's chief economist, available at http://www.bankofengland.co.uk/publications/Documents/speeches/2017/speech984.pdf.

work credits for older workers, a sustained reduction in funding for job centres and a controversial (and to date unsuccessful) privatization of job search services.

- **Unemployment support** has been considerably toughened to a degree that basic income security in the United Kingdom is now not guaranteed despite a person's entitlement through social-security-protection contributions. The annual uprating index of benefits has been reduced and unemployment claimants face stricter work tests and a new conditionality regime of sanctions. A sanction involves the halting of benefits for four weeks. Sanctions are imposed in response to problems with a claimant's timekeeping, ability to meet target numbers of job applications, or problems accepting voluntary (unpaid) 'back to work' jobs—although ruled unlawful in 2016.
- **In-work tax credits** (received by 3.3 million families in 2015) have been significantly reduced in value through a combination of post-2010 reforms that include freezing payments for existing claimants (until 2020), reducing income thresholds for withdrawal of payments, increasing the rate of withdrawal of payments, and limiting child payments to two children only.
- **Housing benefits** have for many years helped to raise overall welfare protections for UK citizens to reasonable levels (by European standards), but have since 2010 been targeted for a series of stringent cuts and withdrawal of government investment in the social-housing sector forcing claimants into the dysfunctional, more-expensive and less-regulated private-sector rental market. Reforms have imposed a new low-level cap on rents (up to the 30th percentile of local rents), a new time-based reduction in housing benefits, a penalty for under-occupied accommodation (so-called bedroom tax), a reduced annual uprating index followed by a freezing of payments (2016–20),

and a higher age threshold for the right to individual accommodation (from 25 to 35 years old without children).

- **Disability payments** have been cut, including abolition of the mobility allowance payment, cuts to the employment-support allowance, reductions in entitlements to social care, and the controversial application by a private sector company of 'back-to-work health tests' which is removing rights to benefits of thousands of people with physical and mental health disabilities.
- **New rights to shared parental leave** now run alongside **maternity leave and pay**, but the United Kingdom still has one of the lowest levels of maternity pay in Europe (the equivalent of 12-weeks full-time earnings for someone on average earnings, far lower than say France with 21 weeks and Germany with 35 weeks, OECD 2014 data) and very strict eligibility criteria (excluding the self-employed, many part-timers earning below a minimum earnings threshold, and workers with less than 26 weeks continuous employment with the same employer).

Job loss insecurities tend to rise and fall with the rate of unemployment; rising during recessions and falling during periods of job growth. As a share of all job separations, the risk of involuntary job loss (dismissals, redundancies, or non-renewal of temporary contracts) was 29 per cent during the 1980s and 46 per cent during the recessionary/slow growth 1990–6 period (Taylor and Booth, 1996, cited in Turnbull and Wass, 2000), then averaged 32 per cent (1996–2000) and 28 per cent (2001–7) before rising during the crisis to 40 per cent (2008–11).[6] Moreover, 2011 data show for the first time that the rate of involuntary job loss

[6] ONS data for 1996–2011 referring to the variable, 'Rate of people leaving main job on voluntary or involuntary basis'.

in the public sector was on a par with the private sector, reflecting the effects of austerity spending cuts, ‘new public management’ practices and weakened unions (Grimshaw, 2013).

Involuntary job loss has a significant adverse impact on household income both because of the immediate loss of regular earnings from the person’s main job and because it is highly correlated with a risk of unemployment and inactivity three months on; analysis of 2007 data for example finds those made redundant were as likely to be unemployed as in paid employment three months later (41 per cent and 42 per cent, respectively), while those who voluntarily resigned were far more likely to be in paid employment (15 per cent and 74 per cent, respectively) (Kent 2008).

A significant cause of churn in employment and insecurities in household income is caused by growing employer use of non-standard employment contracts, notably temporary contracts, zero-hour contracts and false self-employment. Since the early 1990s the share of all temporary workers in employment has fluctuated within the range of 5.4 per cent to 7.9 per cent. In the last decade, employers have made increasing use of temporary agency workers. Their numbers are up from around 850,000 in 2006 to roughly 1 million workers in 2016, although within this number the use of fixed-term temporary contracts has been broadly stable (varying between 600,000 to 700,000 workers). This shift is significant since agency workers often struggle to assert their employment rights. Most often, agency workers are granted a limited subset of rights as ‘workers’ rather than the full set of protections granted to ‘employees’ and, thanks to loopholes in the 2011 agency-worker regulations (from the 2008 EU directive) experience of equal treatment with directly employed counterparts (with respect to wage rates for example) is limited in practice (Forde and Slater, 2016).

**Table 1. Employment insecurities in the UK and their effects on income stagnation and inequalities**

| | Trends | Labour and welfare protections | Income stagnation impact? | Income inequalities impact? |
|---|---|---|---|---|
| **Job properties** | | | | |
| - Risk of unemployment | Rise and fall with economic cycle | Traditionally low-level welfare rights (except housing assistance), but substantially cut since 2010 including for people with disabilities | Immediate income losses and future scarring effects | Male unemployment more adversely impacted by recession than female unemployment |
| - Involuntary job loss | Rise and fall with economic cycle | Low-level statutory employment protections and limited | High risk of unemployment, income losses and future scarring effects | Major rise in the public sector on a par with private sector, |

| | | | | | |
|---|---|---|---|---|---|
| | | | private sector union protection; rights reduced since 2010 | | affecting middle- and upper-income households |
| - | Temporary work | Post-crisis rise in agency work, fall in use of fixed-term contracts and high shares involuntary | Employment rights in principle strengthened (EU directives for fixed-term and agency temps) but in practice employers use new exploitative practices; weak trade union protection (15% density, 2015) | Temporary contracts associated with large wage penalty in private sector and obstacle to wage advancement | High and growing concentration in bottom two job quintiles aggravates insecurities among low-wage earners |

| | | | | | |
|---|---|---|---|---|---|
| - | Zero-hour contract | Massive escalation in employer use of zero-hour contracts since 2010, high rate of underemployment | Contract type undefined in regulatory protection (except banning of exclusivity conditions) and makes eligibility of workers to welfare and employment rights difficult | Over-represented among low-wage workforce | High and growing concentration in bottom two job quintiles aggravates insecurities among low-wage earners |
| - | False self-employment | Suspected growth in use post-crisis given the rise in self-employment, fall in earnings and rise in gig economy use | Self-employed workers are not protected by employment law and entitled to very few welfare | Income for the majority of the self-employed is low and falling | Strong adverse inequalities impact given the high share of self-employed earning small annual incomes and the small |

| | | |
|---|---|---|
| | benefits (e.g. low level statutory maternity allowance) | group of winners |

Use of zero-hour contracts has massively escalated since the pre-crisis years from around 150,000 workers during 2002–8 to over 900,000 registered in 2016, almost 3 per cent of the workforce.[7] These highly unusual and unregulated contracts are used for all types of jobs and span various groups of workers, albeit with an over-representation of women, non-UK workers, and young people. Part of the rise, according to the ONS, is explained by a surge of publicity in the media about the contracts and people’s increased likelihood of self-identification. As such, we do not know precisely when and to what extent changing employer practices can be said to be at fault. Also, while the data suggest some workers welcome this type of contractual arrangement, a significant share are not satisfied.

Table 2 shows that the lowest two wage quintiles (utilizing the same methodology as above) have the highest proportion of jobs defined as temporary or zero-hours contracts, as well as by far the largest growth in such employment forms between 2011–16; in fact their use has fallen among jobs in the upper quintile. Usual average hours of zero-hours contract workers are around 25 per week with a mix of full-time and part-time hours reported in 2016.

[7] ONS data, second quarter of 2016.

**Table 2. Percentage of temporary jobs and zero-hours contracts by job wage quintile, UK 2011–16**

| | Q1 | Q2 | Q3 | Q4 | Q5 |
|---|---|---|---|---|---|
| % temporary or zero-hour contract | | | | | |
| 2011 | 4.3 | 3.9 | 2.4 | 1.1 | 1.9 |
| 2016 | 6.6 | 6.2 | 2.5 | 1.7 | 1.7 |
| change 2011–16 | 2.3 | 2.4 | 0.0 | 0.6 | –0.2 |

Source: UKLFS Microdata, authors' calculations.

In addition, a sustained and significant rise in numbers of people in self-employment, combined with evidence of falling weekly self-employed income and growing suspicions that businesses are exploiting workers' self-employment status, suggests the United Kingdom has also witnessed an expansion in 'false self-employment' since the economic crisis. Self-employment increased by around 25 per cent during 2008–16 compared to less than 5 per cent growth in employees. A key problem is that annual income for three fifths of the self-employed is less than half of annual median earnings of full-time employees,[8] so for many self-employment does not represent a decent livelihood.

Part of the growth in numbers is attributable to the gig economy and the tendency of many logistics/IT-platform firms to define their workers as self-employed and to require them to subscribe and seek jobs from one day to the next (Newsome et al., 2016). This practice is widespread among leading multinational companies (e.g. Deliveroo, Hermes, Uber, Yodel),

[8] Among the registered self-employed, 2016 data suggest 58% earned an annual income below £15,570, which is 55.6% of annual average gross full-time earnings for employees, estimated at £28,028 by the ONS Office of National Statistics.

but has attracted criticism from unions who claim such workers are exploited. In 2016, a court ruled that Uber taxi drivers are not self-employed and ought to have ‘worker’ protections (including minimum wages). Some form of legislative reform is expected following a 2017 government-commissioned review of employment protections enjoyed by workers in the gig economy but it is likely to be ‘light-touch’.

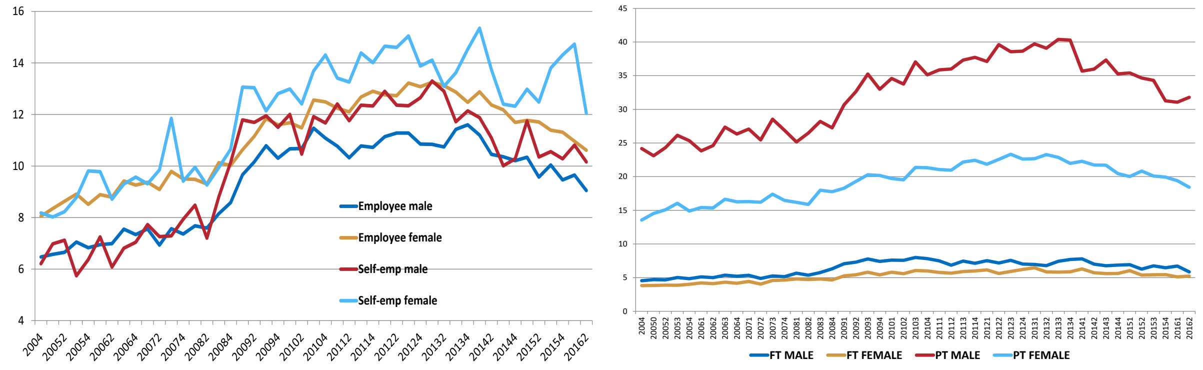
Overall, therefore, issues of wage and income stagnation and inequality are compounded by inequalities in the risk of insecure employment. With all three non-standard forms reviewed above, there is growing evidence that for many workers it is a second-choice job (see, also, OECD, 2015; Rubery and Rafferty, 2013). This means they are not maximizing their earnings potential, which constrains their ability to sustain and grow household income. Among the 1.6 million temporary workers, around one in three men and one in four women reported not being able to find a job with a standard permanent contract.[9] Among zero-hours-contract workers, almost a third say they want more work (31 per cent in 2016, compared to less than 10 per cent for other workers).[10] Also, since the crisis it is notable that the incidence of time-related underemployment has been higher among the self-employed than for employees, with particular problems recorded for women during 2008–16. The problem of wanting to work more hours is especially acute among male and female part-timers, peaking at 40 per cent and 23 per cent of part-timers respectively during 2013 (see Figure 15).

[9] ONS data, first quarter 2017.

[10] The desire for more work can take the form of an additional job, a different job with more hours, or more hours in the current job (ONS Labour Force Survey).

**Figure 15: Share of workers experiencing time-related underemployment, 2004-16**

*a) Employees and self-employed* *b) Full-timers and part-timers*

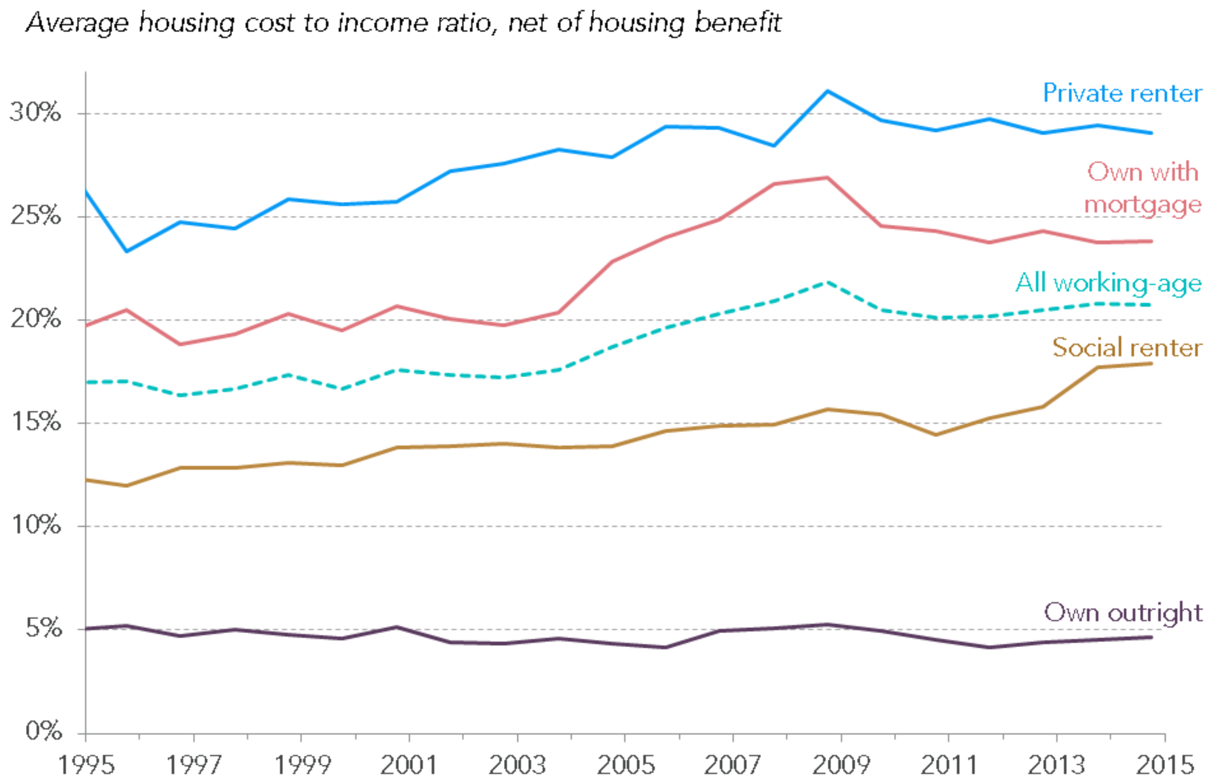



Source: Labour Force Survey, authors' calculations.

# 6 The Importance of Housing in the UK Living-standards Story

Throughout this chapter we have distinguished between incomes before- and after-housing-costs. As noted in both Figure 1 and with reference to Figure 6, it is a distinction that matters much to the UK living-standards story—especially over the course of the twenty-first century. We take a closer look in Figure 16. This sets out the ratio of total housing costs (including mortgage principal and interest, rental payments, and structural insurance premiums) to net incomes among working-age households in the period since 1994.

**Figure 16: Housing cost to income ratio among working-age households**




In keeping with our earlier findings it is clear that housing costs increased most sharply in the immediate pre-crisis era. Looking at trends in average ratios across each of the different types of housing tenure, the chart highlights the importance of a particularly sharp rise in costs relative to income among those buying a house with a mortgage in this same period. This reflects the importance of rapid increases in house prices between the early 2000s and the financial crisis, which far outpaced income growth. Cost-to-income ratios fell for mortgagors somewhat following the slashing of interest rates in 2009, but they remain elevated relative to their twentieth-century levels.

The other factor underpinning the increase in the overall cost-to-income ratio for working-age households since the early 2000s is the compositional shift occurring in this period. As home ownership has become increasingly out of reach, the proportion of working-age families owning their own place has fallen from 55 per cent at the turn of the century to just 41 per cent today. In the absence of new social-renting options, higher numbers of households have been left with no choice but to enter the private-rented sector. This matters both because average cost-to-income ratios among private renters have increased relatively steadily over time, and because they are higher than in all other tenures.

It matters particularly for those on middle and below incomes—the group most likely to find itself locked out of ownership but ineligible for social housing. Housing cost-to-income ratios have risen more rapidly for such low- to middle-income households than for any other income group. As a result, members of the group must allocate more of their resources to housing costs on average than even those households at the very bottom of the income distribution. The divergence between the bottom and top halves of the income distribution has also become more marked post-crisis because homeowners have benefited from falling mortgage costs in a way that renters haven't.

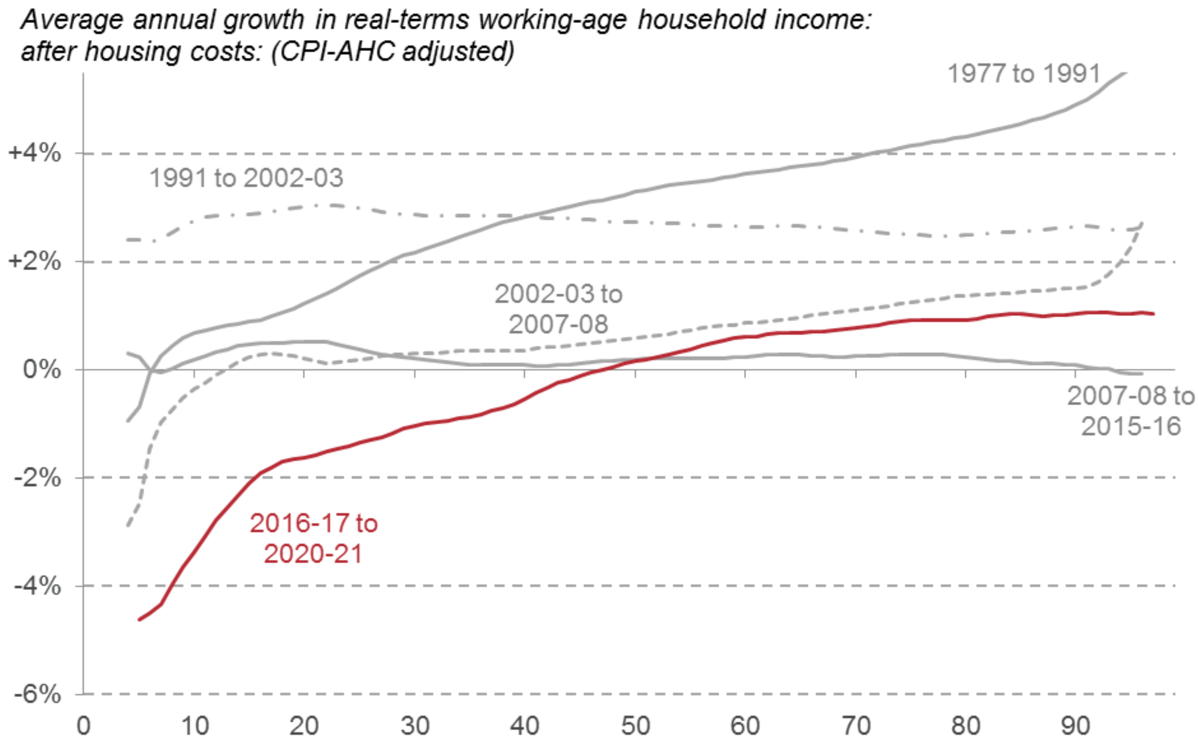
British politicians have consistently pledged to deal with the country's housing crisis, frequently putting in place targets for increasing the supply of new housing in order to better match supply to demand. But such targets have just as often been missed, with governments instead falling back on short-term policies that provide some support for those looking to buy while failing to do enough to deal with the structural problem of inflated house prices. Given the centrality of housing costs to the UK living-standards story, it is an oversight which will need to be tackled in the coming years.

# 7 Conclusions

The UK faces a worrying economic outlook. Clouded by uncertainty surrounding the Brexit process and a government determined to press on with existing plans for large cuts both in working-age welfare and in the size and remuneration of the public-sector workforce, UK citizens are likely to suffer a reversal of household-income growth in the coming years.

Separately produced projections from the Institute for Fiscal Studies and the Resolution Foundation (Hood and Waters, 2017; Whittaker et al., 2017) paint worrying pictures of prospects for middle- and below-income households through to the end of the decade. With employment growth slowing, wages rising only modestly, and welfare cuts biting, there appears to be a very real chance that incomes will fall in real terms across the bottom half of the working-age distribution, with only very modest growth elsewhere in the distribution. Figure 17 compares such an outlook with the outturn growth incidence curves detailed in Figure 6.

**Figure 17: Growth incidence curves for equivalised household incomes: projection**




Notes: CPI-AHC deflator is a variant of the CPI that removes housing elements in order to match the after-housing-cost nature of the income measures shown here.

Source: DWP, *Family Resources Survey*; Resolution Foundation modelling

The implication is that the living standards squeeze of recent years will persist but—crucially—unlike the immediate post-crisis period, in this instance the shape of the squeeze looks straightforwardly regressive. If correct, these projections would result in the sharpest increase in income inequality since the 1980s combined with an overall slowdown in income growth similar in magnitude to the one endured after 2008. Such a combination of rising inequality and falling incomes would be unprecedented. Moreover, for reasons of space this chapter has not documented many other areas of concern in UK society, such as the rising incidence of poverty (with a particularly alarming rise among working families with children) and growing numbers of people without homes.

These projections are of course uncertain, and they are not inevitable or unalterable. In her first speech as prime minister, Theresa May placed great emphasis on the need to support 'just about managing' households on low and middle incomes, stating that her government would be driven 'not by the interests of the privileged few'.[11] Following the 2017 general election in which the Conservative Party lost its majority, there has also been frequent discussion by government ministers of the possibility of putting an end to austerity and thinking again about the cap on public-sector pay (see Whittaker, 2017, for a discussion of what 'ending austerity' might mean and cost).

As yet though, there is little sign of any change in direction. Ensuring middle- and below-income households in the United Kingdom do not face such a perfect storm of flat employment growth, renewed wage pressures, employment insecurities, and reduced state transfers in the coming years is likely to require a concerted effort among all stakeholders. Government must play its role, but so too should trade unions, civil-society organizations, and employers. This requires a transformed policy agenda that recognizes the benefits of a

[11] 'Statement from the new Prime Minister Theresa May', Prime Minister's Office, 13 July 2016.

new model of inclusive growth. In particular: strengthened employment rights can benefit social cohesion and underpin real earnings growth; improved access to affordable housing, welfare benefits, and welfare services can benefit workplace performance; and a new commitment to democratic rights in the workplace can be a beneficial constraint against income inequalities especially among the very highest paid.

During the last decade, the United Kingdom has been emblematic of an economy that has enjoyed neither significant real-terms income growth nor evidence of social and economic inclusion. Radical reforms are required to reverse these circumstances and move the country towards inclusive growth.

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