Inequality

The IFS Deaton Review

Inequalities in the twenty-first century

Introducing the IFS Deaton Review

Robert Joyce and Xiaowei Xu

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1. Introduction

Discussion of inequalities increasingly defines economic and political debate. Concerns abound that the poor are being left behind by the rich, the young by the old, the regions by the metropolis, the unskilled by the highly educated. Inequalities exist not just in income and living standards, but in wealth, health, family environments, life chances and political influence.

In the decade since the financial crisis, the overall squeeze on living standards has brought these inequalities into sharper focus. Technological change and globalisation threaten settled ways of life. Some have placed the surge in populism and the demise of established centre-ground political parties at the feet of growing inequality and a greater sense of economic insecurity.

Yet there is little consensus on what this means and what should be done. Too often the debate takes place in silos, focusing on just one type of inequality, a specific alleged cause or a specific proposed solution.

We need to step back and ask: how are different kinds of inequality related and which matter most? What are the underlying forces that come together to create them? And crucially, what is the right mix of policies to tackle inequalities?

The IFS Deaton Review aims to rise to that challenge. In the most ambitious study of its kind, it will engage world-leading experts in sociology, demography, epidemiology, political science, philosophy and economics to build a comprehensive understanding of inequalities in the twenty-first century. It aims to understand inequalities in living standards, health, political participation and opportunity, not just between the rich and poor but by gender, ethnicity, geography and education too. The review will explore what it is that concerns people about inequality, which aspects of it are perceived to be fair and unfair, and how these concerns relate to actual levels of inequality and the processes by which they are created. It will examine the big forces that drive inequalities, from technological change, globalisation, labour markets and corporate behaviour, to family structures and education systems.

As well as deepening our understanding of inequalities in the twenty-first century, the Deaton Review aims to provide solutions – to build a comprehensive, intellectually coherent and deliverable agenda for action. It will undertake comparisons with other countries in the developed world to understand how different political institutions and policy responses have affected inequality in other jurisdictions. In addition to the role of taxes and benefits, it will examine the policies that drive the underlying distribution of income, including policy on trade, education, the labour market, competition and regional development.

This report is intended to serve as an introduction to just a few of the issues that will be addressed as part of this project, to give a taste of what is to come. The aim is not to present answers, but to illustrate the breadth of the review and the importance of the types of questions it will address.

Given the breadth of the review, we can only skim the surface here. Questions of political economy, lived experiences of inequality, immigration, ethnicity and human development that will be explored in depth in the review are largely left out of this report. Whilst the Deaton Review will be global in scope, this note focuses on patterns of inequality in the UK.

Section 2 sets out some patterns and trends in inequalities – in incomes, health and family structures – and considers inequalities between men and women, the young and old, and geographic areas as well as across the population as a whole. Section 3 discusses how the processes through which inequalities are generated matter to how they are perceived, and briefly touches on some hypotheses on the sources of inequality. Section 4 discusses the role of policy in shaping inequality and the need for a coherent approach to policymaking. Section 5 concludes.

2. What do we mean by inequality?

Inequality means different things to different people. Economists often focus on differences in incomes, wealth and consumption between the rich and poor. The financial crash drew attention to runaway incomes at the top, and austerity highlighted the plight of those at the bottom. More recently, inequalities between the old and young have moved up the political agenda. For some, there is no inequality more pressing than the gap in earnings between men and women.

But inequality is not just about money. Inequality exists in the stresses and strains on family life, which shape the environment in which children grow up. It is the divergence in life expectancy between deprived and affluent areas, and the growing burden of poor mental health among disadvantaged groups. It is the pulling apart of successful cities from coastal and ex-industrial towns, where traditional jobs have been lost and young people have few prospects for upward mobility.

These forms of inequality are harder to measure than the headline income inequality statistics. But it is essential that we try to understand the full picture.

This section sets out what has happened in recent years along a few dimensions of inequality. The Deaton Review will explore these and other dimensions in depth, to come to a comprehensive understanding of what types of inequality really matter to people, how they have evolved and how they relate to one another.

Headline statistics

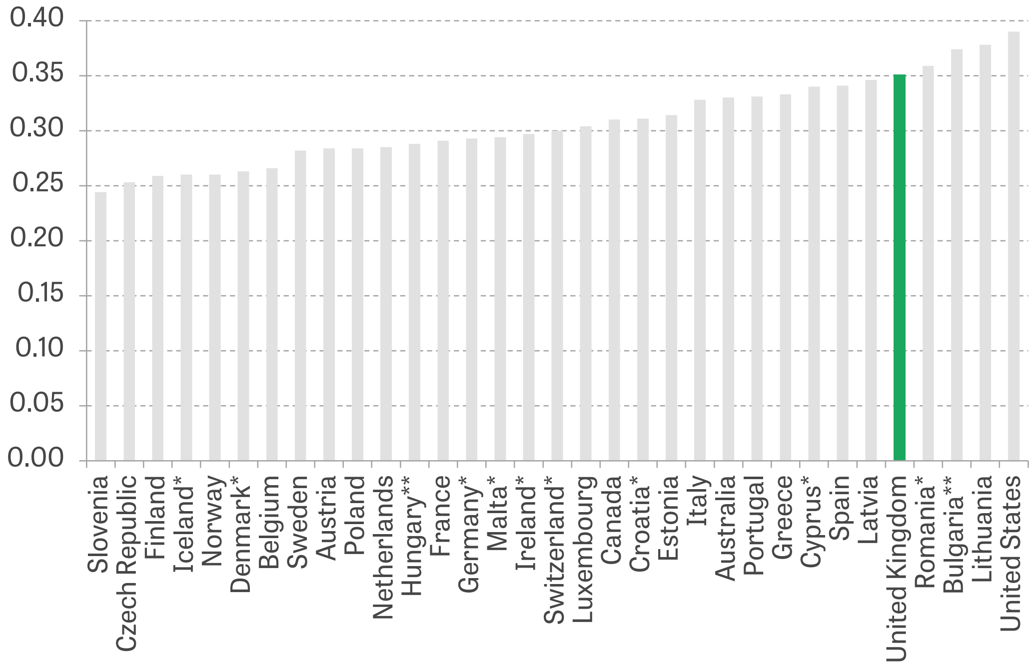
Perhaps the most well-known statistic on inequality is the Gini coefficient of household income inequality, with incomes adjusted to reflect differences in needs of households of different sizes. The Gini coefficient ranges from 0, which represents perfect income equality across all households, to 1, where all the income in an economy goes to a single household.[1]

By this measure, the UK is unequal by international standards (Figure 1). We have one of the highest Gini coefficients in Europe, though we are less unequal than the US.

Looking across time, the Gini coefficient was relatively stable in the 1960s and 1970s and it rose steeply in the 1980s (Figure 2). But it has remained broadly unchanged since the early 1990s. Another common measure of household income inequality, the 90:10 ratio (which measures the household income of the person who is 90% of the way up the distribution – with a higher income than 90% of the population – relative to that of the person 10% of the way up), has actually fallen since the early 1990s. This means that household incomes are now more evenly distributed across most of the distribution than they were 25 years ago.

[1] Strictly speaking, it is possible for the Gini coefficient to be greater than 1 if there are negative incomes, such as losses from self-employment.

Figure 1. Gini coefficient of equivalised net household incomes in selected countries, 2016[a]

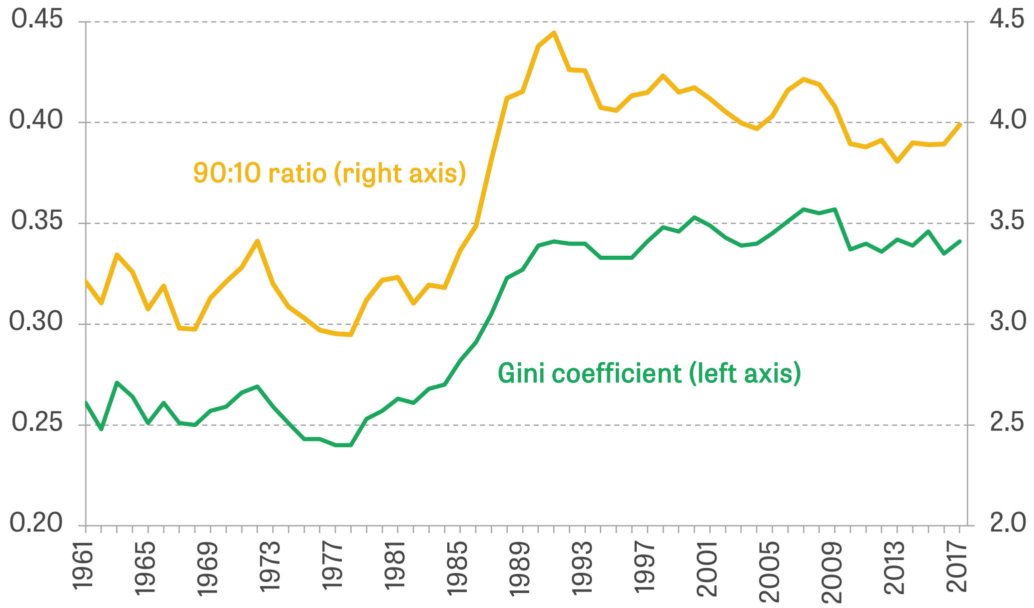


[a] Figures from 2015 are marked with an asterisk (*). Figures from 2014 are marked with two asterisks (**).

Note: Data on EU states that joined in or before 2004 are from the OECD. Data on other countries are from the World Bank.

Source: Authors' analysis of OECD (2019a) and World Bank (2019) data.

Figure 2. Gini coefficient and the 90:10 ratio in Great Britain, 1961–2017



Note: Years refer to calendar years up to and including 1992 and to financial years from 1993–94 onwards.

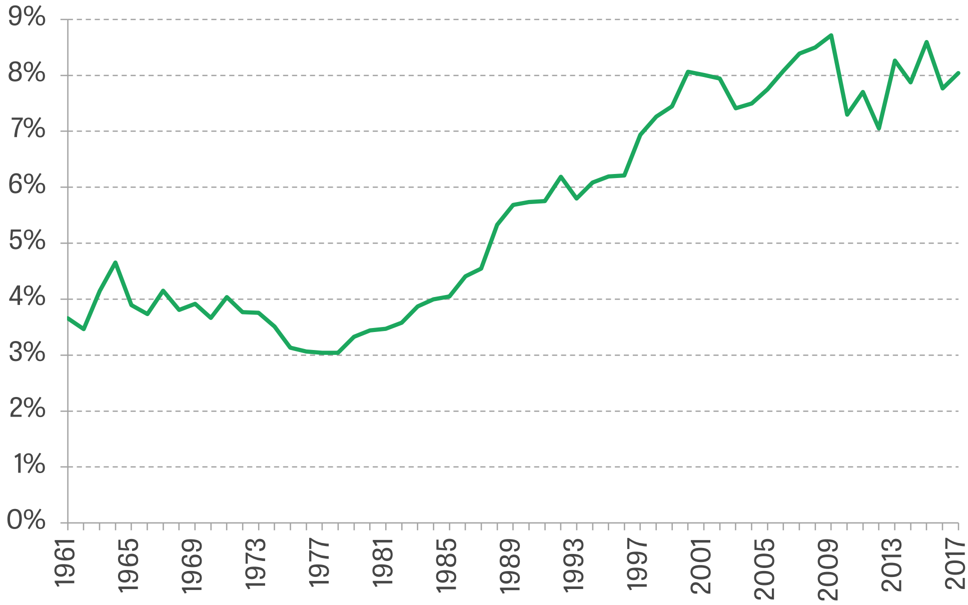
Source: Authors' analysis of the Family Expenditure Survey and Family Resources Survey, various years.

Incomes at the top and bottom

The Gini coefficient and the 90:10 ratio are convenient summary statistics, but they cannot capture everything that matters to people. Even if we just focus on incomes, there have been some fundamental shifts over the past few decades that are not reflected in the headline statistics.

One example is the runaway rise in top incomes. The share of income going to the 1% richest households has nearly tripled in the last four decades, from 3% in the late 1970s to around 8% today (Figure 3). International comparisons of a related measure – the top 1% share of individual gross incomes – suggest that top income shares have also risen in other English-speaking countries such as the US and Canada, but have remained more stable in continental European countries such as Denmark and the Netherlands (Roser and Ortiz-Ospina, 2016).

Figure 3. Top 1% share of net household income, 1961–2017



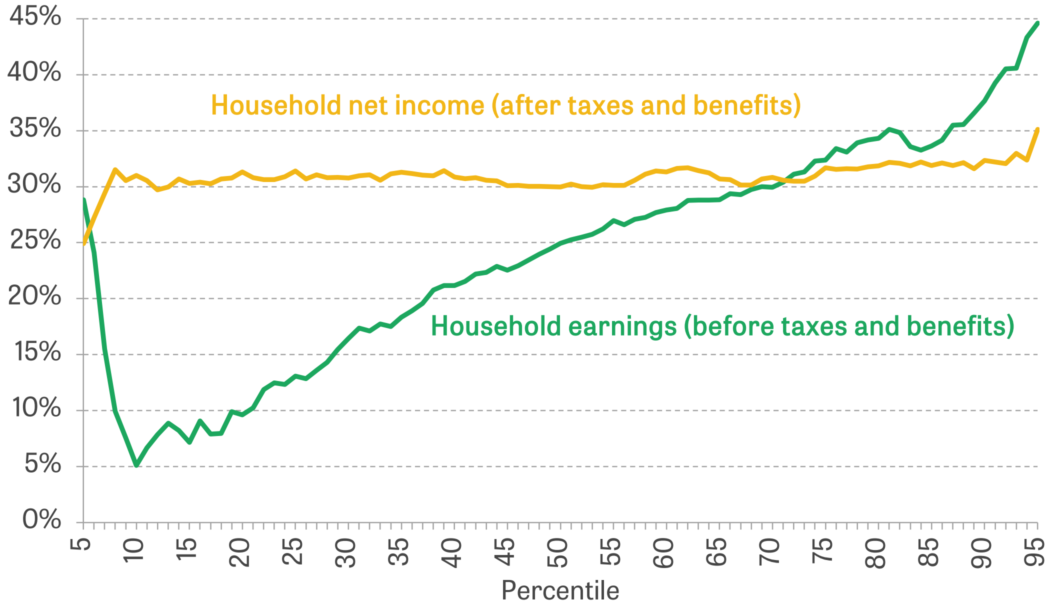
Note: Years refer to calendar years up to and including 1992 and to financial years from 1993–94 onwards.

Source: Authors' analysis of the Family Expenditure Survey and Family Resources Survey, various years.

Household incomes include income from earnings, benefits and other sources. The rise in top household incomes partly reflects a rise in earnings among high earners. For example, average CEO pay among FTSE 100 companies in the UK in 2017 was 145 times higher than the salary of the average worker, up from just 47 times back in 1998 (High Pay Centre, 2013 and 2018). A string of executive pay scandals and high-profile leaks in tax havens have put the super-rich at the forefront of the debate on inequality.

Meanwhile, household earnings have stagnated towards the bottom of the distribution. After adjusting for inflation, the lowest-earning working households today earn little more than their

Figure 4. Growth in average earnings and net incomes for working households, 1994–95 to 2017–18



Note: Excludes top and bottom 5% of household incomes.

Source: Authors' analysis of Family Resources Survey, various years.

counterparts in the mid 1990s (Figure 4). In contrast, middle-earning households earn about 20–30% more than they did back then, and the highest-earning households around 40% more.

Higher cash transfers from government – in particular the rapid expansion of tax credits from the late 1990s – have plugged this gap, so that overall *income* inequality remained stable even as household *earnings* inequality increased. After taxes and benefits, household incomes at the bottom have broadly kept pace with incomes further up the distribution (Figure 4). The rate of relative poverty fell between the late 1990s and the early 2000s and has remained broadly stable since then (Cribb et al., 2017).

However, evidence suggests that people care about not only the total income they receive but also the form in which they receive it (Bryson et al., 2016). Benefit income received from the government may feel quite different, in terms of the dignity and security it brings, from income earned in the labour market.

Health

Income is important for well-being, but it is far from being the only thing that matters. Other things matter to people's lives: mental and physical health, families and social networks, quality of work, civic engagement and political participation to name a few.

The rise in life expectancy that we have come to take for granted has come to a halt in the last few years. In each year between 1981 and 2011, life expectancy at birth increased by an average of

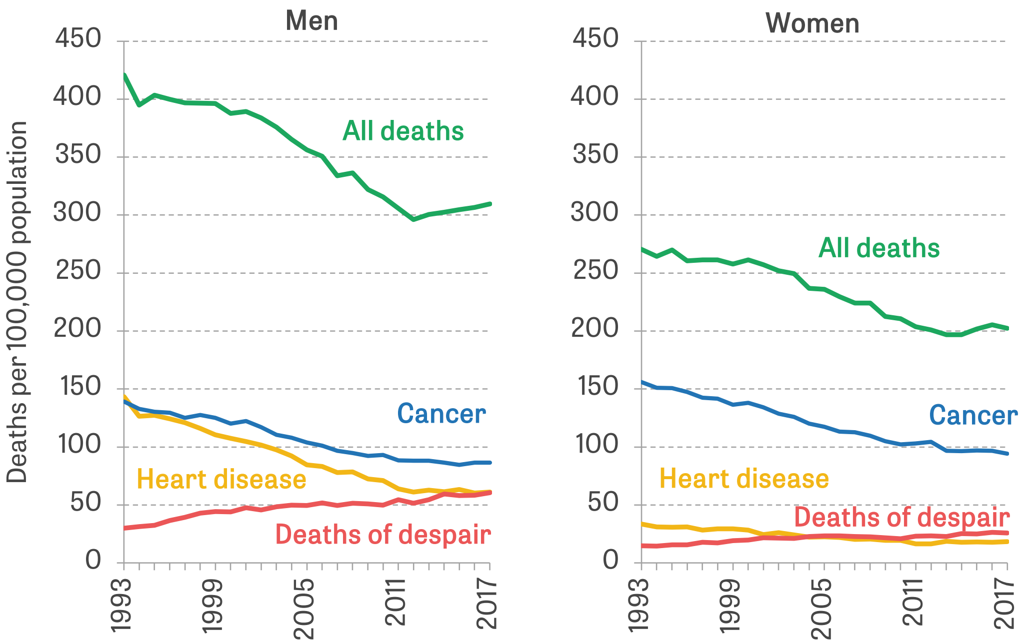
0.20 years for women and 0.27 years for men. But improvements have stalled since 2011, and may even be reversed in the coming years (Public Health England, 2018).

Mortality in middle age has begun to rise. One cause for concern is a rise in 'deaths of despair', to use a term coined by Case and Deaton (2015): deaths from suicide, drug and alcohol overdose and alcohol-related liver disease. Research in the US, where deaths of despair have been rising for more than a decade, suggests that they may be linked to a process of cumulative disadvantage for less-educated people (Case and Deaton, 2017). Deteriorating job prospects, social isolation and relationship breakdown may slowly be taking their toll on people's mental and physical health.

Deaths of despair have been rising in the UK too (Figure 5), though on a much smaller scale than in the US (Case and Deaton, 2017). When combined with a slowdown in the decline in deaths from cancer and heart disease, they have contributed to a rise in mid-age mortality in recent years. This comes after decades of virtually continuous improvement.

Some other measures of health among adults in the UK also appear to be deteriorating. Changes in survey questions make it difficult to study trends over time, but the evidence suggests that rates of long-standing illness and disability among people aged 25–54 have been rising since at least 2013–14 (Cribb, Norris Keiller and Waters, 2018). In 2016–17, around a quarter of people in prime working age reported having a long-standing illness, and around one in six had a disability. Poor mental health seems to be increasingly prevalent: the share of those with a long-standing

Figure 5. Middle-age mortality (aged 45–54) in England, 1993–2017



Note: Classification of disease groups follows Case and Deaton (2015 and 2017).

Source: Authors' analysis of Office for National Statistics (2015 and 2017) mortality data.

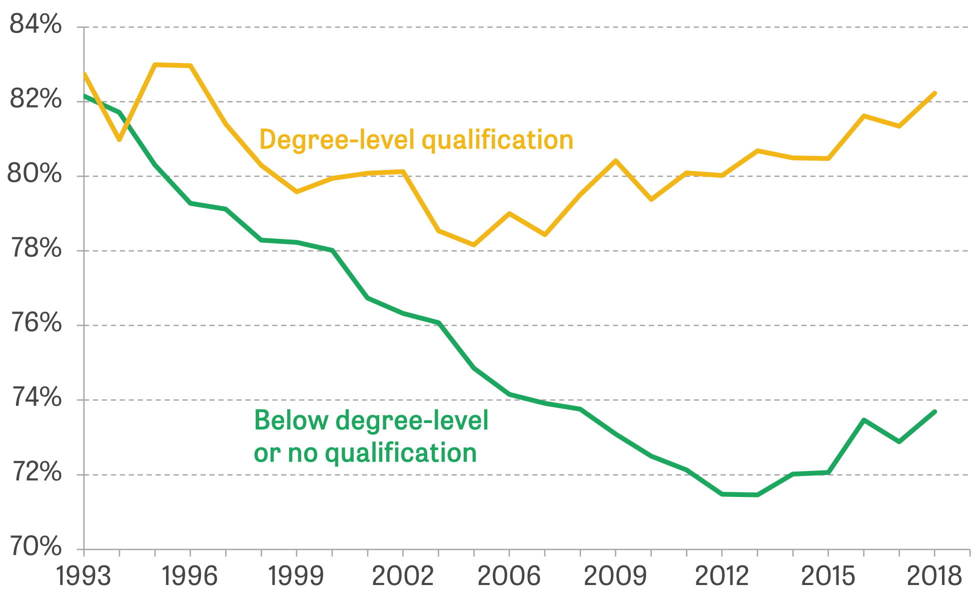
illness reporting mental health as their main health problem rose from 15% in 2013–14 to 20% in 2017–18 (Cribb, Norris Keiller and Waters, 2018).

Families

In addition to health, family is commonly considered to be one of the most important aspects of life (Gallup, 2003; Pew Research Centre, 2018). Yet in the UK, as in the US, low-income and low-educated people are increasingly likely to live alone (without a spouse or cohabiting partner). At the top of the wage distribution, the proportion of people who were either married or cohabiting increased between 1994 and 2015, but it declined by up to 20% among people in the bottom fifth of wages (Blundell et al., 2018). Differences by education are also stark (Figure 6). In 1993, graduates were no more likely to live in a couple at age 40–45 than those without degrees; the gap now stands at around 10 percentage points. (Note that higher education participation has also risen over this period, so some of the divergence may reflect changes in the composition of people with and without degrees.)

This divergence in family structures may be related to inequalities in the labour market. In his book *Labor's Love Lost*, sociologist Andrew Cherlin argues that the decline in industrial occupations and the rise in precarious, low-paid jobs in the US have led less-educated young adults to increasingly forgo marriage and have children within unstable relationships (Cherlin, 2014). Economists have shown that in US areas where workers were undercut by import competition from China, marriage rates fell and children became more likely to grow up in single-

Figure 6. Share of 40- to 45-year-olds who are married or cohabiting by education, 1993–2018



Note: Excludes people currently in full-time education.

Source: Authors' analysis of Quarterly Labour Force Survey, Q1 1993 to Q2 2018.

parent families (Autor, Dorn and Hanson, 2018). In this light, the decline in marriage and cohabitation among disadvantaged groups in the UK may be (at least in part) a symptom of other disadvantages, such as a decline in good working-class jobs and secure incomes.

As well as affecting the well-being of adults, changes in family dynamics may have profound effects on the next generation. In the UK – like the US, but unlike countries in continental Europe – a significant proportion of children (16% in 2017) are born into households with no fathers (Office for National Statistics, 2019a), a phenomenon heavily concentrated among those with less income and education (Andersson, 2002).

In his book *Our Kids*, sociologist Robert Putnam documents a bifurcation in family environments in the US. Children of richer, more-educated parents grow up in stable homes with parents who spend both time and money on them, whilst children from poorer backgrounds increasingly grow up in insecure and chaotic environments (Putnam, 2015). Recent research in the UK has shown that there is now more divergence in the socio-emotional skills of young children, which predict outcomes later in life, than there was a few decades ago (Attanasio et al., 2018). Controlling for other factors, mothers' socio-economic status was more highly correlated with socio-emotional skills for children born in 2000–02 than for children born in 1970. Among the many possible explanations for this growing gap is the sort of bifurcation in parenting styles and environments documented by Putnam.

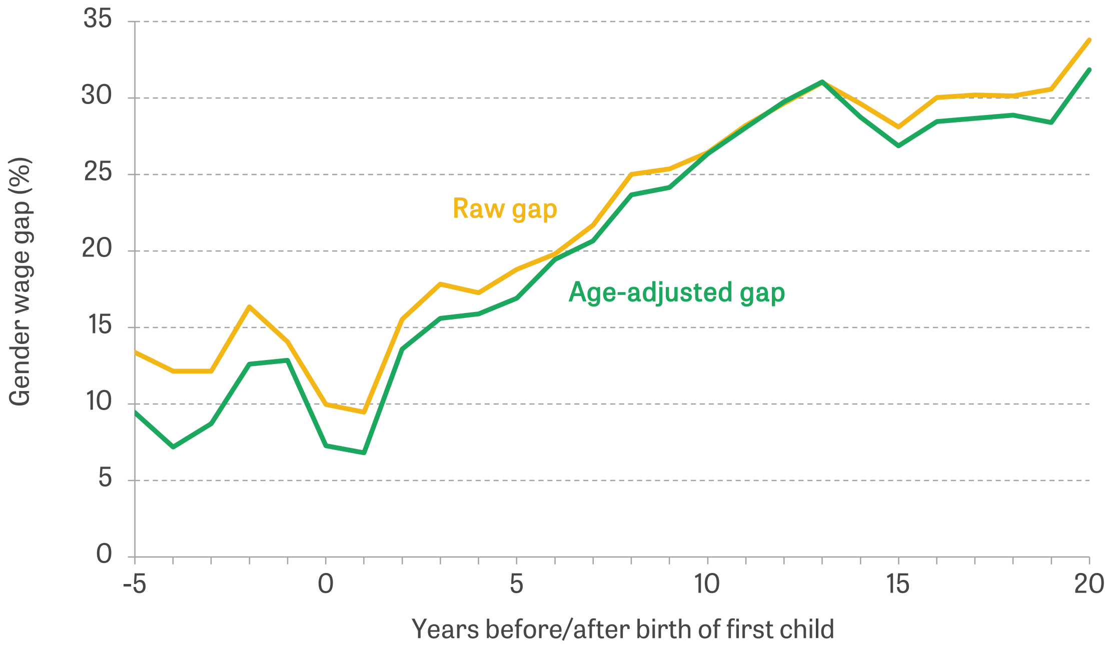
Gender

The trends in family structure documented above may also partly reflect a more positive trend: improving opportunities for women in the labour market, which have made living with a partner less of an economic necessity.

The UK has seen a sustained rise in the share of prime working-age women (aged 25–54) in employment, from 57% in 1975 to 78% in 2017. This is partly because younger generations are starting families later in life, but also because mothers are participating more in the labour market than they used to (Roantree and Vira, 2018). Women on low wages increased their hours of work, so that earnings inequality fell among women even as it increased among men (Belfield et al., 2017). The gap between male and female hourly wages has also narrowed, from 28% in 1997 to 18% today (Office for National Statistics, 2018a).

Yet inequalities between men and women still persist. Take the prominent example of the gender wage gap, which opens up markedly at the time the first child is born and continues to widen for over a decade thereafter (Figure 7). Previous research at IFS suggests that this may reflect a number of adjustments women (but not men) make when they become parents, from switching to part-time work which curtails wage progression, to moving to less suitable and productive firms closer to the home (Costa Dias, Joyce and Parodi, 2018).

Figure 7. Gender wage gap by years from birth of first child



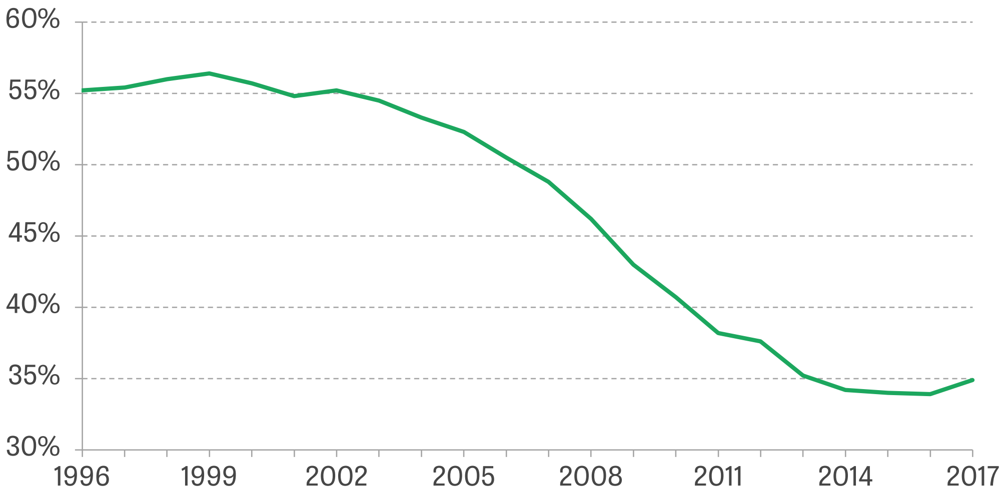
Source: Costa Dias, Joyce and Parodi, 2018.

There are also substantial differences by ethnicity, both between and within genders. In 2017, white British working-age women were only 7 percentage points less likely to be employed than white British men (73% compared with 80%). But among Pakistanis and Bangladeshis, the employment rate of women was around half that of men (38% compared with 71%; Department for Work and Pensions, 2018). In 2014, Bangladeshi and Pakistani women earned £1–1.50 less per hour on average than white British women, and these gaps appear to have widened over the past decade (Longhi and Brynin, 2017).

Intergenerational inequalities

In the aftermath of the financial crash, inequalities between generations have become increasingly prominent in the media and political discourse. The Great Recession hit the pay and employment of young adults the hardest, and millennials born in the 1980s are the first post-war cohort to have lower incomes during early adulthood than the cohort before them (Cribb, Hood and Joyce, 2016). Young people are accumulating significantly less wealth than previous generations: by their early 30s, average net wealth among those born in the early 1980s was just £27,000 per adult, about half of the average wealth holdings of those born in the 1970s. This largely reflects a decline in homeownership among young people over the past two decades, from 55% in 1997 to 35% in 2017 for those aged 25–34 (Figure 8; Cribb and Simpson, 2018).

Figure 8. Homeownership rates for young people (aged 25–34), 1996–2017



Note: Years refer to financial years.

Source: Cribb and Simpson, 2018.

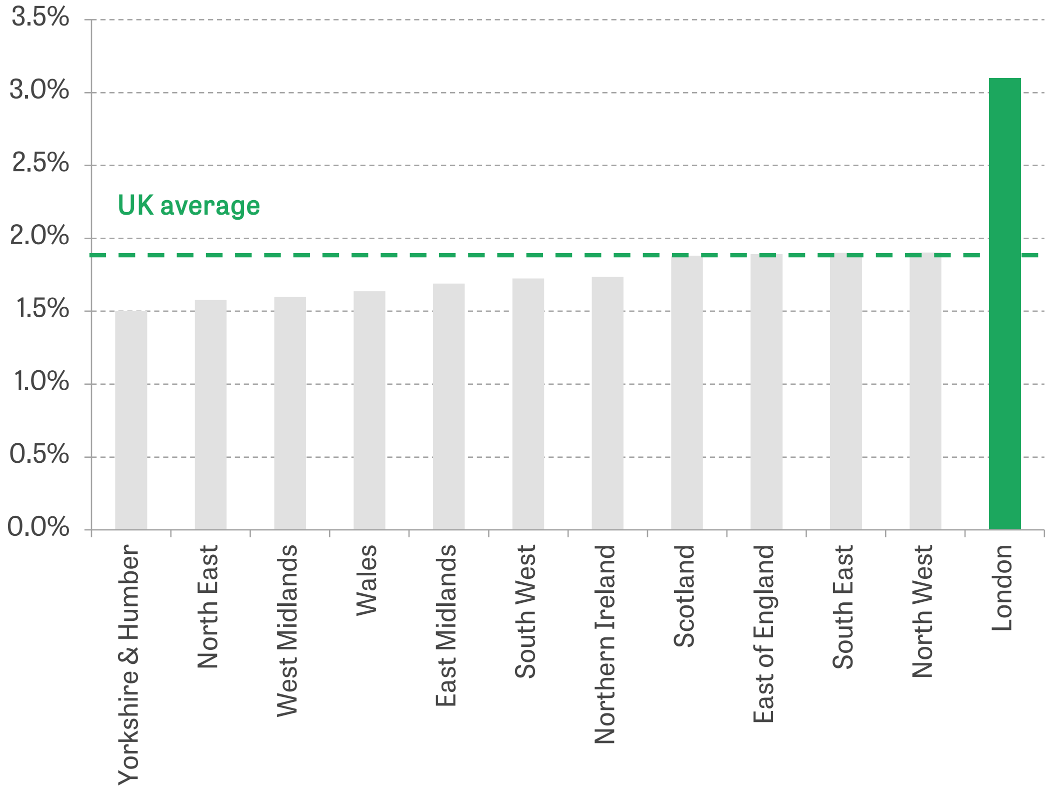
Inequalities between generations matter in their own right, and can also fuel inequalities within the next generation. Elderly households now are much wealthier than their counterparts a decade ago, and are much more likely to leave a large inheritance (Hood and Joyce, 2017). In 2012, 44% of elderly households (where all members were 80 or older) expected to leave an inheritance of £150,000 or more, compared with just 24% in 2002. Because the younger generation is accumulating wealth much less quickly than before, and because the older generation is particularly wealthy, inheritances are likely to be especially important to the living standards of today's young people. Those lucky enough to have wealthy parents can expect to get a substantial boost to their lifetime wealth.

Geography

Another form of between-group inequality that has become increasingly salient in the public debate is geographic inequality. The Brexit vote focused attention on the growing divide between London and the rest of the country. Whilst the majority of people in all other English regions voted for Brexit, 60% of Londoners voted in favour of Remain (BBC, 2016). This political divide is likely to at least partly reflect growing economic divides between London – a global city with booming economic clusters in finance, media and professional services – and other parts of the UK.

Over the past few decades, London has pulled away from the rest of the country. Real economic output (measured by gross value added) grew by 3.1% a year in London on average between 1998 and 2017, compared with 1.9% in the UK as a whole (Figure 9; Office for National Statistics, 2018b). Average weekly earnings among full-time employees in London are a third higher than the UK average and nearly two-thirds higher than in the North East, though high living (especially housing) costs mean that Londoners' real living standards are not as high as raw income differentials suggest (Office for National Statistics, 2019b).

Figure 9. Average annual growth in economic output (real gross value added) by region, 1998–2017



Note: Gross value added expressed in chained volume measures with effect of inflation removed.

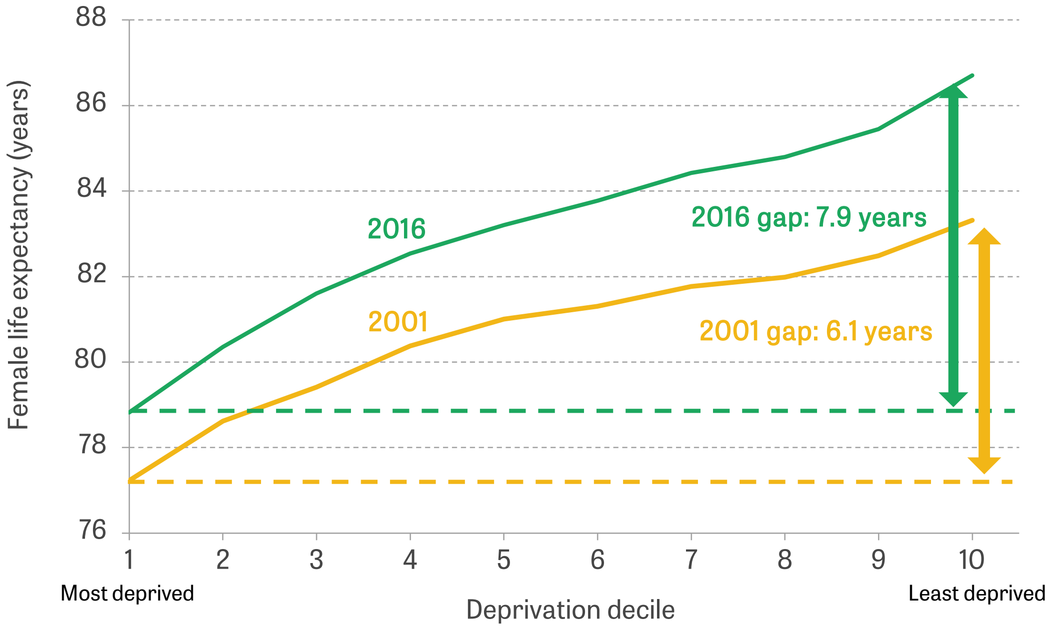
Source: Authors' analysis of Office for National Statistics (2018b) data.

Recent research has found that opportunities for social mobility are also higher in the capital. A child growing up in London to parents in the bottom third of the occupation distribution (in terms of median wages) has a 30% chance of moving to the top third, compared with 22% nationally and only 17% in Yorkshire and the Humber (Bell, Blundell and Machin, 2018).

Meanwhile, in Britain's old industrial towns, employment rates still lag behind the national average, and one in twelve working-age people receive incapacity benefits for poor health (Beatty and Fothergill, 2018). Following the decline of the dockyards and domestic tourism, Britain's coastal towns have also stagnated. In 2017, 5 of the 10 local authorities with the highest unemployment rates were coastal, as were 10 of the 20 local authorities with the highest proportion of individuals in poor health (Corfe, 2017).

The gap in life expectancy between affluent and deprived areas, measured by the Index of Multiple Deprivation (IMD), has widened considerably over the past 15 years (Figure 10; Bennett et al., 2018). In 2001, women born in the 10% most affluent areas could expect to live 6.1 years longer than women born in the 10% most deprived areas; by 2016, the gap stood at 7.9 years. The gap has also widened for men, from 9.0 years in 2001 to 9.7 years in 2016. (We should note that the index includes measures of health and disability, so some of the gradient – though not its rate of change – is mechanical.)

Figure 10. Female life expectancy at birth by IMD decile, 2001 and 2016



Source: Bennett et al., 2018.

There are also dramatic geographic variations in some of the patterns in family structure discussed earlier. Only 7% of children in affluent Windsor and Maidenhead are born to single mothers, compared with a third of children in Liverpool and Middlesbrough (Office for National Statistics, 2019a).

Summary

Inequalities in different dimensions – income, work, mental and physical health, families and relationships – are likely to reinforce one another. They may result in, and stem from, other inequalities in wealth, cultural capital, social networks and political voice. Inequality cannot be reduced to any one dimension: it is the culmination of myriad forms of privilege and disadvantage.

The Deaton Review will examine inequality in this comprehensive sense, looking at inequalities in opportunities and in outcomes, between groups and between individuals. It will examine what kinds of inequality really matter to people, and how different dimensions of inequality interact. For example, to what extent are inequalities in health and families, such as deaths of despair and the decline in marriage, rooted in inequalities in the labour market? How have changing social norms and gender roles affected inequalities in household incomes, labour market outcomes and family formation? How are inequalities in income, wealth, health and education transmitted from one generation to the next? Do sources of income matter – and if so, what do the decline of the traditional breadwinner model, and the increasing dependence on benefits to prop up incomes at the bottom, mean for people's sense of dignity and self-worth?

In seeking to answer these and other questions, the Deaton Review aims to come to a full understanding of the patterns of inequality in the twenty-first century, and how different forms of inequality work to reinforce one another.

3. Sources of the divide

The deepening economic and social divides have led some to question whether inequality will lead to a crisis of capitalism. Only one in six people thinks capitalism is working well in Britain today, and more young people have a favourable view of socialism than of capitalism (YouGov, 2016 and 2017). With support for populist candidates rising on both sides of the Atlantic, and on both sides of the political spectrum, some question whether inequality may pose a threat not just to capitalism but also to our democratic system.

Yet inequality does not necessarily spell crisis. There is ample evidence that people's perceptions of inequality depend on whether they think it is fair. In a 2011 YouGov poll, 85% of people agreed that in a fair society income should depend on how hard people work and how talented they are (YouGov as cited in Pickles (2017)). Given a choice between defining fairness in terms of just deserts ('those who do the wrong things are punished and those who do the right things are rewarded') and defining fairness in terms of equality ('treating people equally and having equal distribution of wealth and income'), 63% chose the former and only 26% the latter.

A recent experiment found that people were much more accepting of inequality when it resulted from merit instead of luck (Almas, Cappelen and Tungodden, 2019). Given the opportunity to redistribute gains to others, people were significantly less likely to do so when differences in gains reflected differences in productivity. The experiment also revealed differences between countries in people's views of what is fair, with more Norwegians opting for redistribution even when gains were merit-based and more Americans accepting inequality even when outcomes were due to luck.

This suggests that to understand whether inequality is a problem, we need to understand the sources of inequality, views of what is fair and the implications of inequality as well as the levels of inequality. Are present levels of inequalities due to well-deserved rewards or to unfair bargaining power, regulatory failure or political capture? Can meritocracy be unfair? What is the moral status of luck? And what if inequalities derived from a fair process in one generation are transmitted on to future generations?

The Deaton Review will examine the many forces that drive inequalities – technological change, globalisation, labour market institutions, education systems, social norms, family structures – and the way in which they are mitigated or exacerbated by policy choices. It will relate the sources of the divide to people's perceptions of fairness, which may vary across countries and social groups, and to different ethical frameworks for evaluating inequalities in outcomes and opportunities.

This section focuses on one part of the question – the sources of inequality. We briefly discuss hypotheses on the causes of just two dimensions of inequality, earnings and firm performance, to illustrate the types of questions that will be addressed in the Deaton Review. The role of policy in shaping inequalities is discussed in Section 4.

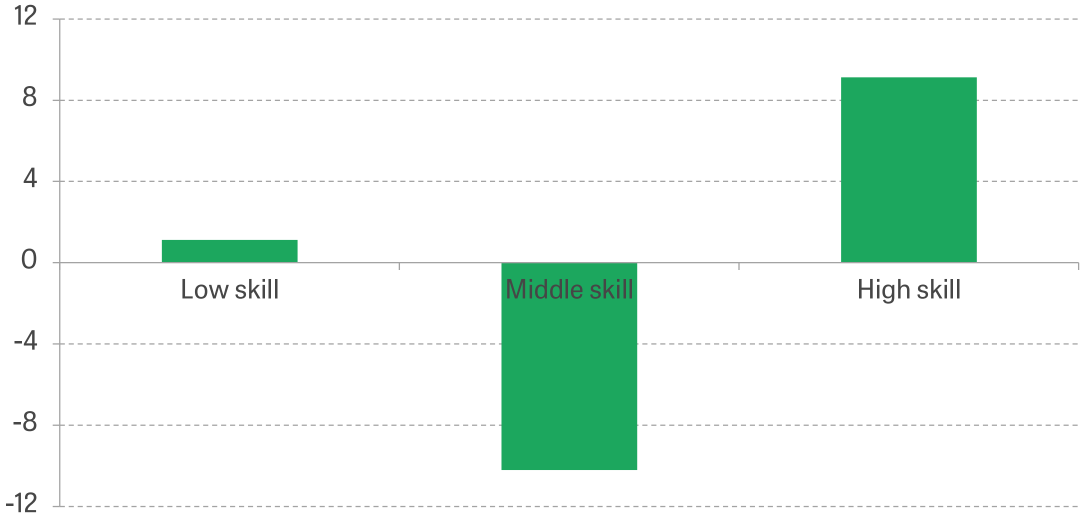
Technology, globalisation or bargaining power?

The last few decades have seen profound changes in the labour market. Earnings growth at the top has vastly outpaced growth in the middle, whilst real earnings have actually fallen for low-paid men (Blundell et al., 2018). Employment has shifted away from occupations that were previously in the middle of the wage distribution, leading to a 'hollowing out' of the job market (Goos and Manning, 2007; Salvatori, 2018). The share of people employed in high- and low-skilled occupations rose between 1995 and 2015, whilst the employment share in mid-skilled occupations fell (Figure 11; OECD, 2019d).

These patterns have often been attributed to globalisation and technological change. Advances in computing and the internet made skilled workers more productive, pushing up wages at the top. At the same time, changes in production technology made it more attractive for firms to automate routine workplace tasks (Autor, Levy and Murnane, 2003; Acemoglu and Autor, 2011). Manufacturing and administrative jobs were increasingly replaced by machines or codified in computer software.

Globalisation may have further exacerbated inequalities in earnings: competition for internationally mobile executives drove up top incomes, whilst import competition and offshoring put pressure on working-class jobs. Import competition also spurred technological progress, raising innovation and shifting employment towards high-tech firms (Bloom, Draca and Van Reenen, 2016). These forces seem to have been more detrimental for men, because women are more likely to work in service sectors that are difficult to automate or offshore, such as hospitality or social care.

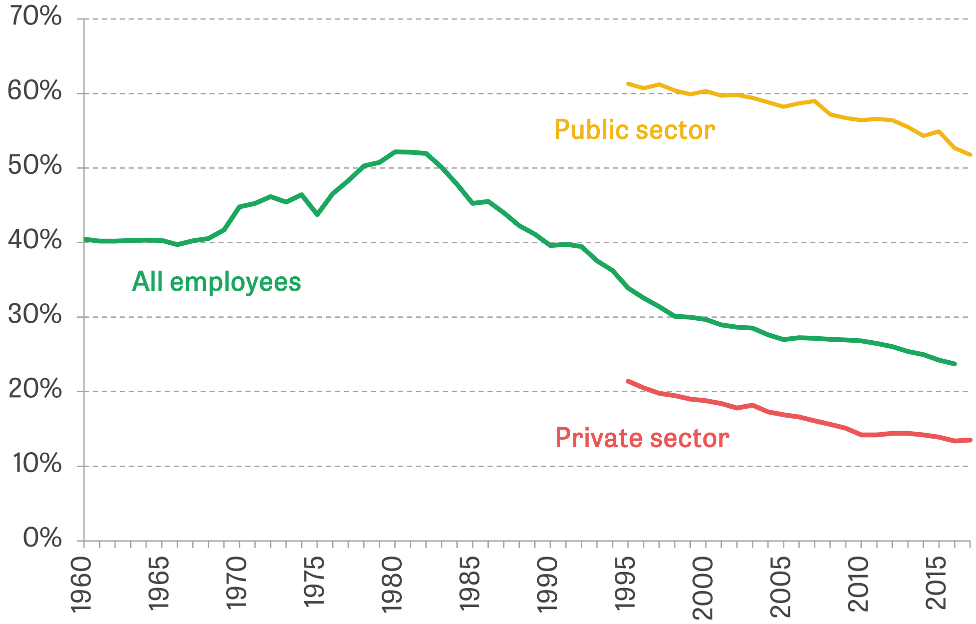
Figure 11. Percentage point change in employment share by skill level, 1995–2015



Note: High-skilled occupations include jobs classified under the ISCO-88 major groups 1, 2 and 3 (legislators, senior officials and managers; professionals; technicians and associate professionals). Middle-skilled occupations include jobs classified under groups 4, 7 and 8 (clerks; craft and related trades workers; plant and machine operators and assemblers). Low-skilled occupations include jobs classified under groups 5 and 9 (service workers and shop and market sales workers; elementary occupations). Omits skilled agricultural and fishery workers (group 6).

Source: OECD, 2019d.

Figure 12. Trade union membership as a percentage of all employees in the UK, 1960–2017



Note: All-employee figures are from the OECD based on administrative data. Sector-specific figures are from BEIS based on the Labour Force Survey.

Source: Authors' analysis of OECD (2019c) and Department for Business, Energy and Industrial Strategy (2019) data.

Under this narrative, changes in earnings inequality may seem part of the inexorable march of progress. If skilled workers are now in higher demand, and unskilled tasks more efficiently performed by machines or other countries, perhaps this is not necessarily a problem as long as people are given opportunities to acquire the right skills. But it is possible that changes in labour market institutions have also altered the bargaining power of different workers – in favour of those at the top, at the expense of those at the bottom.

Union membership has declined dramatically over the last few decades (Figure 12). At the peak of union density in the 1980s, every other British worker belonged to a union; today, only one in four British workers do. In the private sector, that figure is less than one in seven. Falling union membership may have removed constraints on wage dispersion, increased the share of surplus going to executives, or more generally reduced the political clout of ordinary workers against other dominant groups (see, for example, DiNardo, Hallock and Pischke (2000), Card, Lemieux and Riddell (2004) and Acemoglu and Robinson (2013)).

New forms of employment may also have weakened workers' bargaining power at the bottom. Low-paid workers such as cleaners, couriers and receptionists are increasingly likely to work as self-employed contractors, which means that they are not covered by traditional employee protections. The gig economy may make it more difficult to bargain collectively. The trend towards outsourcing low-skilled services to large agencies may make workers less able to negotiate high wages, as they have fewer employers to choose from and do not benefit from norms against wage dispersion within companies (Dube and Kaplan, 2010; Goldschmidt and Schmieder, 2017).

At the other end of the spectrum, pay-setting institutions for top executives may have allowed them to extract a higher share of the surplus that companies generate. A large part of executive pay comes from bonuses and exercised stock options, institutions that have existed for a long time but really took off with force in the last few decades (Bivens and Mishel, 2013). Stock options can be constructed to reward CEOs for luck as well as performance, especially in companies with weak governance (Bertrand and Mullainathan, 2001). The use of compensation consultants and 'peer groups' to benchmark top executive salaries is meant to guard against excessive pay, but may in reality be skewed to justify inflated salaries (Bizjak, Lemmon and Nguyen, 2011).

Is rising earnings inequality driven by technological change, globalisation or changes to labour market institutions? The Deaton Review will try to unpick the relative contributions of these and other forces and examine the ways in which they interact. For example, it will consider the role of unions in tempering the impact of global changes – and the way in which, by improving options available to skilled workers, globalisation and technological change may have undermined the coalition of skilled and unskilled workers needed to sustain unionisation (Acemoglu, Aghion and Violante, 2001). It will ask to what extent changes to workers' bargaining power stem from globalisation and technological change – the threat of offshoring and automation, competition for globally mobile talent – and other factors such as immigration, labour market regulation, skills policy and firm behaviour.

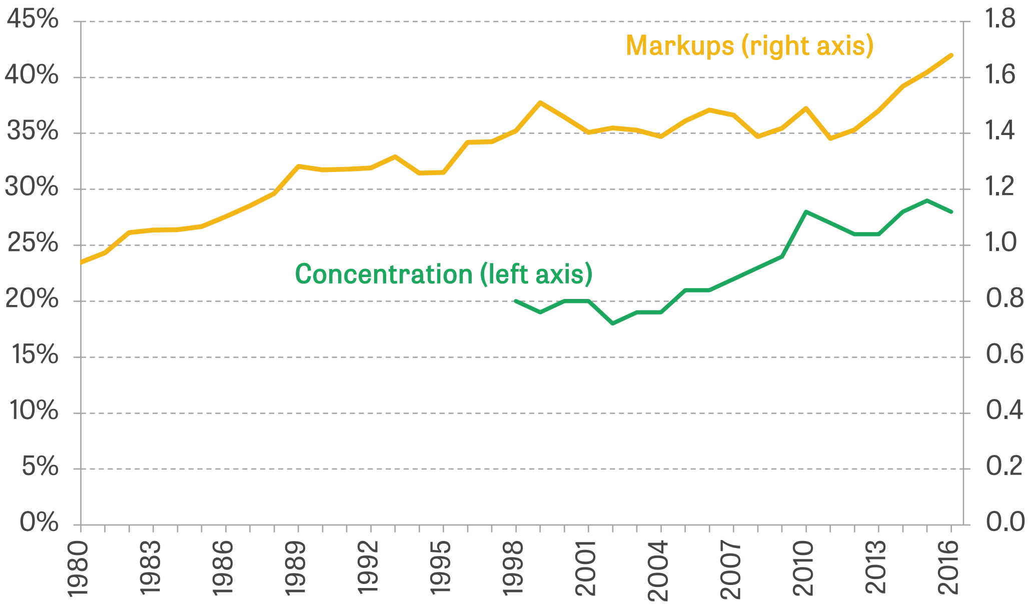
Superstar firms or regulatory failure?

Another trend in recent decades is the rise in product market concentration. The share of all turnover captured by the largest 100 firms in the UK has risen by more than a third since the late 1990s (Figure 13; Aquilante et al., 2019). Average company markups, which measure the extent to which prices exceed marginal costs (the cost of producing an additional unit), have also risen since the 1980s (Figure 13; De Loecker and Eeckhout, 2018). Similar trends have been observed in the US (Autor et al., 2017; De Loecker and Eeckhout, 2017). In both the UK and the US, the rise in average markups appears to be driven by a small number of highly profitable firms (De Loecker and Eeckhout, 2017; Aquilante et al., 2019).

Higher concentration and markups do not necessarily reflect rising market power, and there is debate on whether the calculation of markups accurately captures the up-front costs of investments and the high risk of failure among start-ups (see Syverson (2019) for a review). But if the evidence is robust, it may reflect an increasing role of market power among firms, particularly at the top end of the distribution.

Why have concentration and markups increased? By some accounts, this reflects higher returns in an increasingly globalised, innovative world. Just as technological advances favour skilled workers who are able to employ the new technologies, they are likely to favour firms that are more adept at adopting new modes of production. Global competition and the diffusion of new competitive platforms (such as price comparison websites) make consumers more sensitive to price. New technology industries such as Google, Facebook or Amazon often exhibit strong

Figure 13. Concentration and average markups of UK firms, 1980–2016



Note: Concentration measured by share of all turnover accruing to 100 largest firms.

Source: Concentration – Aquilante et al. (2019). Markups – De Loecker and Eeckhout (2018).

network effects and economies of scale. These changes may lead to a 'winner takes most' effect, allowing 'superstar' firms to capture an increasing share of the global market (Autor et al., 2017).

If the rise in concentration and markups at the top reflects returns to innovation, perhaps that is not inherently problematic. After all, seven in ten British people think inventors of new products and services deserve their wealth, according to a 2017 YouGov poll (Pickles, 2017). And if globalisation and new technologies make markets more competitive, surely consumers benefit as well.

An alternative explanation is a failure of competition policy – that makes markets less, not more, competitive. Some suggest that the current competition regime, with its tools and approaches that were designed for goods markets, is ill-equipped to deal with new technologies (Prat and Valletti, 2019). Standard notions of market definition may be unable to evaluate, for example, the competitive effects of Facebook's acquisitions of WhatsApp and Instagram.

The inappropriate use of patents may also confer market power (Boldrin and Levine, 2013). In the smartphone industry alone, as much as $20 billion (£15 billion) was spent on patent purchases and litigation between 2010 and 2012 (Duhigg and Lohr, 2012). The threat of costly litigation by incumbents can act as a major deterrent to new entrants, stifling competition and innovation. Political lobbying may also play a role, either through direct corporate lobbying or through more discrete channels such as philanthropic donations to politicians' constituencies (Bertrand et al., 2018).

Is the rise in firm concentration and markups due to globalisation and innovation, or to anti-competitive behaviour? The truth may well be more nuanced – innovative firms, once established, may seek to entrench their positions through predatory buyouts, aggressive patenting or political lobbying. Globalisation may have further advantaged firms with some initial market power.

A careful examination of the evidence is needed to disentangle the various sources of rising inequality between firms, and to relate these to inequalities in other dimensions (in wages and earnings, between regions and genders). Understanding how firm behaviour drives inequalities, and identifying potential policies to prevent abuse, will be a key contribution of the Deaton Review.

4. The role of policy

Discussions of the causes of inequality can produce a sense of helplessness. If inequality stems from forces such as globalisation and technological change, are we powerless in the face of them?

Many of the sources of the divide are indeed global, but levels of inequalities vary greatly between countries. Government policies can play an important role in responding to structural forces and mediating their damaging effects on inequality. In some cases, government policies may themselves be the culprits for rising inequalities.

The Deaton Review will compare evidence from the UK and other developed countries to understand how policies and political institutions affect inequality. Based on a thorough analysis of the root causes, it will propose effective policy responses to different types of inequality, taking into account the interactions between various policy levers and trade-offs between them. It will look at both redistributive policies (taxes and benefits) and policies that affect inequalities in the market – for example, policies on trade, regional development, competition, regulation and labour market institutions.

The range of relevant policies is potentially huge. In this section, we briefly discuss two of the tools available to policymakers – the tax and benefit system and labour market policy – to illustrate the ways in which policies can mitigate or exacerbate inequality and to highlight the need for holistic policymaking.

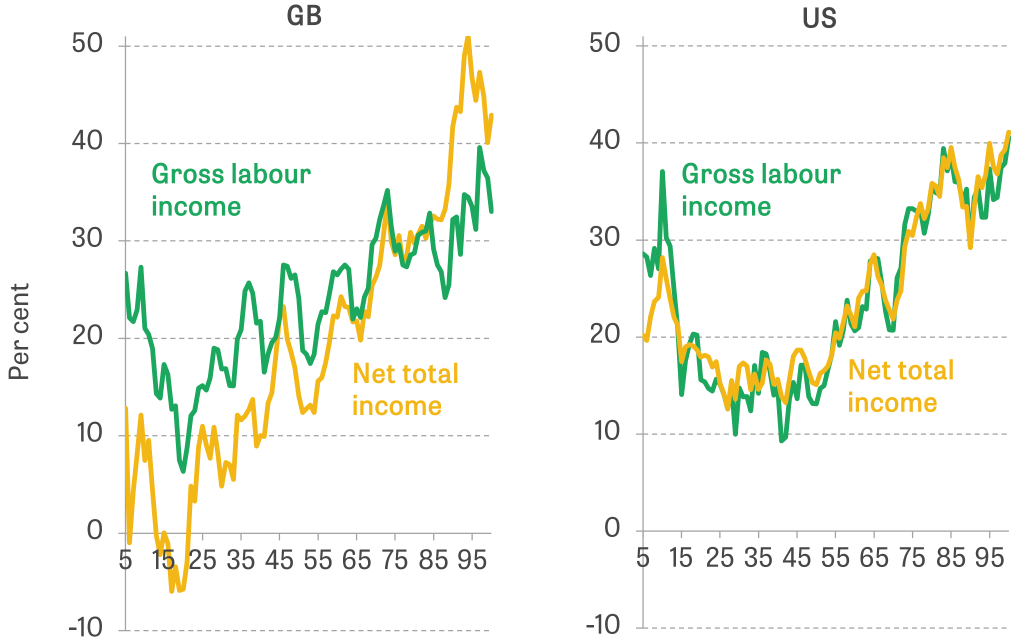
Taxes and benefits

Differences in tax and benefit systems will lead to different patterns of inequality. In the UK, rising inequality in male earnings led to a sharp increase in family income inequality between the early 1980s and the mid 1990s (Belfield et al., 2017). However, the introduction of tax credits by the Labour government played a big part in putting an end to that rise. From 1994 to 2015, average net family incomes (after taxes and benefits) rose considerably faster than labour income for men on low wages.

In contrast, in the US, a weaker social safety net meant that family incomes changed in tandem with earnings. Changes in net family incomes coincided with changes in earnings for men across the wage distribution (Figure 14; Blundell et al., 2018). In Scandinavian countries where social security spending exceeds a quarter of GDP (compared with 20.6% in the UK), taxes and benefits are likely to be more effective at mitigating changes to earnings inequality (OECD, 2019b). Cuts to UK benefits after the 2008 financial crash mean that we are likely to see an increase in household income inequality in the coming years (Hood and Waters, 2017).

Taxes are important not just for redistribution but for the incentives they create. Work incentives are a key example, and debates about the design of taxes often focus on the trade-off between redistribution on the one hand and protecting or strengthening work incentives on the other.

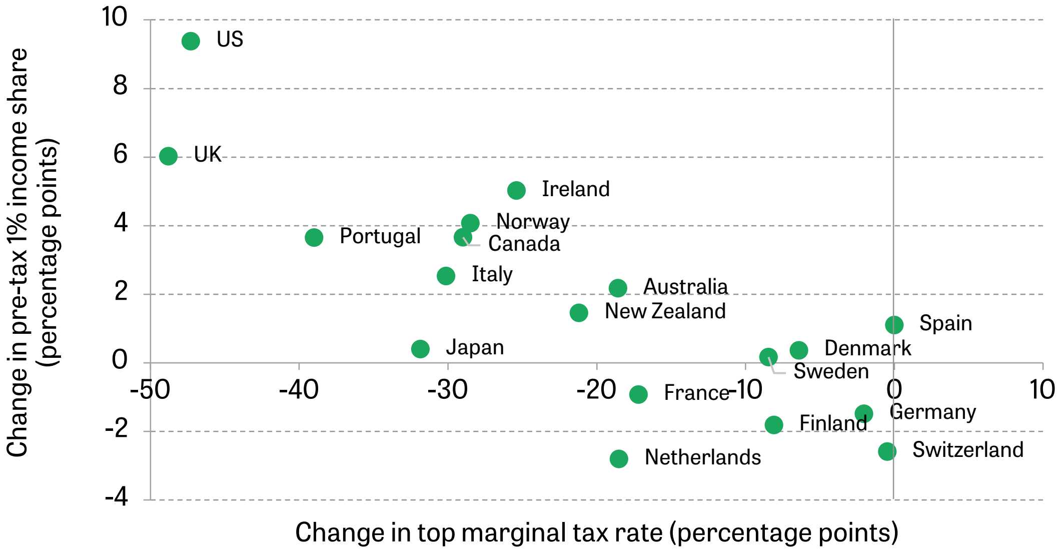
Figure 14. Changes in equivalised gross and net income by male wage percentile in GB and US, 1994–2015



Note: Sample is individuals aged 25–55. Individuals with imputed earnings and hours in the US data are excluded. Excludes bottom 5% and top 0.1% of sample and reweights the rest of the sample.

Source: Blundell et al., 2018.

Figure 15. Changes in pre-tax top income shares and top marginal tax rates, 1960–64 to 2005–09



Source: Piketty, Saez and Stantcheva, 2014.

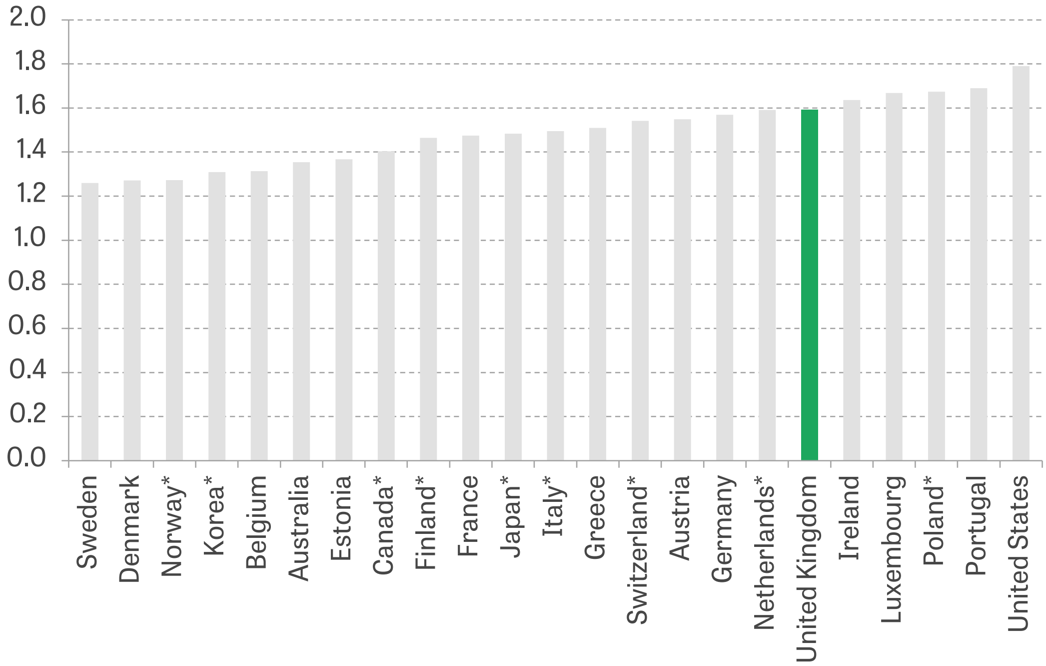
But incentives are wider-ranging than that. Across a number of developed countries, falls in the top marginal tax rate are associated with increases in the share of *pre-tax* income accruing to the top 1% (Figure 15; Piketty, Saez and Stantcheva, 2014). One possible explanation is that marginal tax rates change incentives to bargain for higher income or manipulate company pay-setting practices: when top rates are high, highly paid executives have less to gain by trying to raise their income through those means. In support of this claim, the authors show that CEO pay is negatively correlated with top marginal tax rates, and that this relationship is stronger in companies with weak governance.

Some have suggested raising corporate taxes as a way to rein in excess returns resulting from market power (see, for example, Krugman (2017)). But whether corporation tax is the appropriate lever depends on whether it ultimately lowers profits or wages. Stricter competition policy, or changes to patenting laws that discourage aggressive patenting, may serve the same purpose with fewer adverse effects.

Education and labour market policy

Education policy also plays a role. The vast inequalities by education in the US – in health, deaths of despair, marriage and life satisfaction – may partly reflect a large gap in earnings between high- and low-educated people, which has been rising since the 1980s (Blundell, Green and Jin, 2016). Some suggest that this is because educational attainment in the US has failed to keep up with increasing demand for skills, generated by new technologies (Goldin and Katz, 2010). In the UK, where participation in higher education rose rapidly over this period, the graduate wage premium is much smaller and has remained fairly stable (Blundell, Green and Jin, 2016).

Figure 16. Ratio of earnings of tertiary-educated workers to workers with upper secondary education in selected developed countries, 2009[a]



[a] Figures from 2008 are marked with an asterisk (*).

Note: Tertiary education includes vocational courses with a minimum duration of two years full-time equivalent.

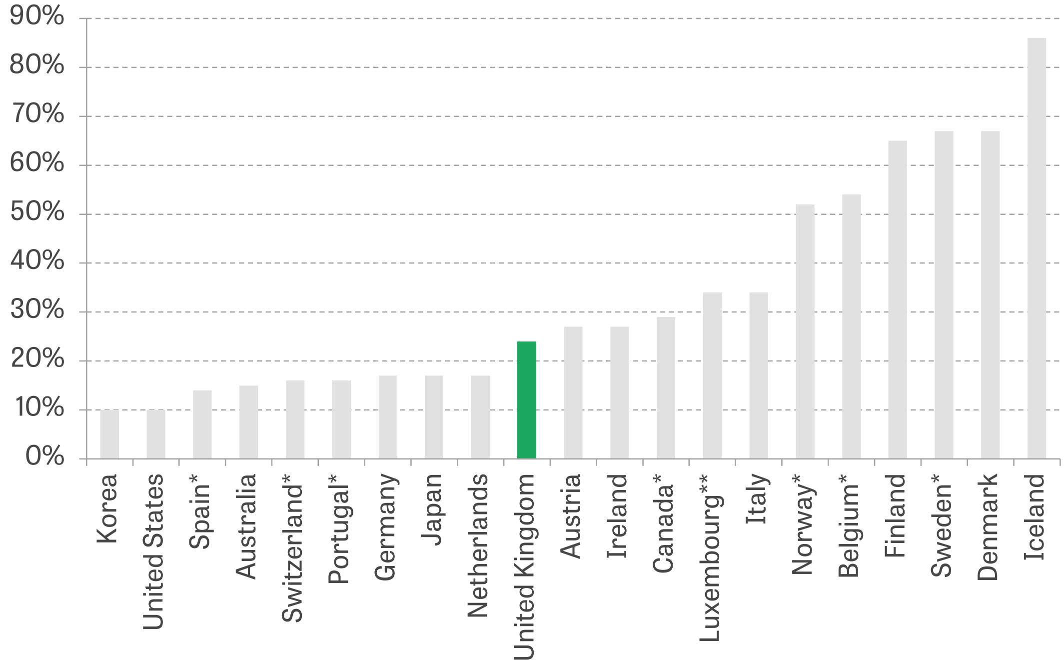
Source: OECD, 2012.

High-quality vocational education can improve prospects for those who choose not to go down an academic path, and retraining can help workers displaced by globalisation and technological change. Technology and globalisation affect the demand for skills, but the supply of skills clearly matters too.

Labour market institutions can shape workers' bargaining power. Increases to the UK's National Living Wage over the last few years have raised earnings at the bottom with no discernible effects on employment yet (Aitken, Dolton and Riley, 2018). That said, minimum wages in the UK are already high by international standards, and we do not know how close we are to reaching the point when further increases threaten employment, particularly as the minimum wage rises to affect more workers in relatively 'automatable' jobs (Cribb, Joyce and Norris Keiller, 2018).

Stronger trade unions can tip power back towards employees – in the Nordic countries, between 52% and 86% of all employees belong to a trade union (Figure 17; OECD, 2019c). Having workers on company boards – as is mandatory in Germany – could have a similar effect, curbing inequalities within firms if not between firms. If workers are given a say in how companies are run, they might help resist downward pressure on wages, press for better working conditions and rein in executive pay at the top.

Figure 17. Trade union membership as a percentage of all employees, in selected developed countries, 2016[a]



[a] Figures from 2015 are marked with an asterisk (*). Figures from 2014 are marked with two asterisks (**).

Source: OECD, 2019c.

Summary

The appropriate policy response to any form of inequality will depend on its underlying cause. Education and skills policies may be effective long-run responses to technological change, whereas policies to empower workers may be more suitable if bargaining power is the problem. Whether corporation tax or competition policy is the right tool to address rising markups – or indeed whether they need to be addressed at all – will depend on why markups are rising. And we need to think about the interactions between different policies, to design interventions that support – or at least do not counteract – one another.

The Deaton Review will identify policy responses to the inequalities we face today. It will assess the relative merits of available policy options – taxes and benefits, labour market policies, education, competition policy, ownership structures and regulations – and consider how policies in different spheres can be designed to complement each other and minimise adverse effects. We aim not just to further our understanding of inequalities in the twenty-first century, but to equip policymakers with the knowledge and tools to tackle those inequalities.

5. Forging a path forward

As at no other time in recent history, inequalities dominate the economic and policy debate. They have sparked worldwide protest movements and been linked to some of the most important political events of our time, including the vote for Brexit and the rise of populism across the developed world.

To generate effective policies to tackle inequality, we need to understand the nature of the divides today and what types of inequality matter most. Yet there is still much that we do not know. Are deaths of despair rooted in deteriorating job opportunities, and how do they relate to people's incomes, family structures and social networks? Should the rise in firm markups be interpreted as evidence of innovation or a failure of competition policy? And should runaway incomes at the top be attributed to rising returns to skill in an increasingly globalised and technologically advanced world – or to market power, changing social norms or political influence?

Unpacking the sources of different types of inequality will help us understand whether and why they matter. There is then the question of how policy should best respond. How can we best combine policy levers to address inequality and minimise adverse effects? For example, if trade has reduced the bargaining power of low-skilled workers, would it be more effective to restrict trade, invest in retraining or increase their bargaining power through other means, such as institutions for collective bargaining, minimum wages or a universal basic income?

We need a comprehensive approach to answer these big questions – one that spans the social sciences and draws on theory, empirical evidence from different countries and the experiences of citizens. This means looking beyond economic inequality towards health, family structures, norms and attitudes, social capital and political engagement. Over the next few years, the Deaton Review will embark on this ambitious task: to build a narrative on the nature and causes of modern inequality and to develop a comprehensive agenda for change.

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