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REPORT

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THE GENERATION OF WEALTH

Asset accumulation across and within cohorts

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All errors remain the authors' own.

Table of contents

Executive Summary

Employment, wages, taxes and benefits – these are the bread and butter of debates on living standards and inequality. All relate to the income families live on year to year and all matter hugely. But too often these debates ignore a longer-term driver of living standards – the wealth we accumulate and draw down on.

This matters because wealth is a key determinant of lifetime living standards, affecting not only our income in retirement but also the price and nature of the housing we enjoy and the resources we leave to our children.

It also matters simply in terms of scale. Family wealth in 21st Century Britain is huge and growing, rising from £9.9 trillion before the financial crisis to over £11 trillion in the most recent data – more than six times our national income. Significant increases have come from house price rises in the 1990s and 2000s, followed by major growth in private pension wealth more recently, as falling interest rates have increased the value of defined benefit entitlements. Wealth is also key for those concerned with questions of intergenerational fairness, given emerging evidence of the asset accumulation challenges faced by younger cohorts, most visibly when it comes to home ownership.

That's why in this report – the seventh for the Intergenerational Commission – we explore how wealth is distributed across and within different birth cohorts in Britain, and the accumulation patterns via which this distribution has come about.

Britain's wealth is significant and has grown over time, with the inequality of this wealth falling in the long term but rising most recently

Britain's significant wealth is very unequally shared. Wealth inequality fell for much of the 20th Century, with the share of total net wealth held by the top 1 per cent of individuals falling from approximately three-fifths in the 1920s to one-fifth in the 1970s. Yet, despite wealth inequality continuing to fall in the 1990s and 2000s, it still stands at almost twice the level of – much more regularly discussed – income inequality.

While aggregate wealth continued to grow, the wealth of the typical adult fell in the period during and since the financial crisis. Families' total net wealth per adult – comprising net property wealth, net financial wealth and private pension wealth – declined from £99,000 to £84,000 (by 15 per cent) between 2006-08 and 2012-14. And in this period the long-term story of declining wealth inequality went into reverse, with the Gini coefficient – a common measure of inequality – increasing slightly from 0.67 to 0.69.

The one-third of total net wealth that is held in property is the driving force behind these inequality ups and downs. In particular, home ownership trends have moved from pushing down on wealth inequality between 1995 and 2005 to increasing wealth inequality more recently as ownership rates have fallen. Those falls are concentrated among those with the least wealth, with ownership falling by 12 per cent between 2006-08 and 2012-14 in the bottom half of the overall wealth distribution. By contrast, home ownership has continued to increase among the top 10 per cent of adults.

Private pension wealth, which makes up two-fifths of total net wealth, is more unequally distributed across adults than net property wealth. However, this inequality has fallen slightly since before the financial crisis largely due to the advent of auto-enrolment. This has acted as a slight brake on the upward pressure changes to net property wealth have put on inequality.

Net financial wealth – including bank accounts, savings, shares and unsecured debt – is relatively small compared to property and private pension wealth, but the most unequally held of all.

The level and distribution of adults' wealth also varies significantly across the UK, with typical wealth actually second-lowest in London, reflecting much lower rates of home ownership and a younger age profile.

Generational wealth progress has gone into reverse, with all cohorts born since 1955 falling behind predecessors at the same age

Lower property ownership and lack of access to relatively generous defined benefit pensions for today's young adults have already sounded the alarm with regards the wealth accumulation of younger cohorts.

It should not surprise us that baby boomers (those born between 1946 and 1965) hold significantly more of our nation's wealth (over half) than millennials (those born between 1981 and 1995 hold only 2 per cent). After all, wealth is accumulated across a lifetime, and peaks around retirement age. If we are to understand differing wealth accumulation trajectories for different generations, it is much more important to track the wealth held by different cohorts at the same age.

Doing so allows us to see that, when it comes to wealth, the expectation that each cohort will do better than last might have been true for significant parts of the 20th Century, but has recently reversed. The millennials, the group on whom intergenerational concerns are currently focused, are certainly not experiencing generational progress on wealth accumulation. A typical adult born during 1981-85 had half as much total net wealth at age 30 as a typical adult at the same age five years before them.

But far from just affecting millennials, generational progress on wealth accumulation has gone backwards for all cohorts born after 1955, that is, including the younger baby boomers themselves. A typical adult in the second-youngest baby boomer cohort born 1956-60 had 7 per cent less wealth at age 55 than the cohort at the same age five years previously. Contrast that to the oldest baby boomer cohort (born 1946-50), which at age 65 had wealth one-fifth higher than the cohort at the same age five years before them.

These shifts reflect reinforcing trends amongst the different forms of wealth. Far from just affecting the millennials, net financial wealth has fallen cohort-on-cohort for those born from the 1950s onwards. This shift has not been driven by increased debt but less saving – younger cohorts have lower overall debt than previous cohorts at same age despite higher student debt.

Private pension wealth changes between generations are less clear cut, but it's clear that those born between 1946 and 1960 benefitted most from recent increases in the value of defined benefit pensions. 1966 is the tipping point for younger cohorts doing less well

in terms of private pension wealth than their predecessors. These trends in part reflect the fact that fewer than one-in-ten private sector employees born in the 1980s are active members of defined benefited pension scheme today, compared to nearly four-in-ten of those born in the 1960s when they were the same age. It's also important to account for that fact that younger cohorts need higher pension wealth – given rising longevity and higher working-age incomes – to deliver the same level of pension adequacy (normally measured based on a fixed percentage of pre-retirement income). The opposite of that pattern is evident in private pension wealth accumulation trends for younger cohorts, although they are now benefitting from the introduction of auto-enrolment.

While home ownership levels overall peaked as recently as 2004, the cohort that has experienced the highest levels of home ownership at each age was born as far back as the 1940s. Each subsequent cohort has experienced lower levels of home ownership at the same age. This means that every cohort from the 1950s onwards currently has less property wealth than those at the same age a decade before them. Younger millennials born in the 1980s have roughly the same net property wealth as the cohort born 20 years before them at age 30. Given lower ownership rates, they look set to fall even further behind.

As well as differences across cohorts, wealth gaps within cohorts are large and show signs of increasing

As well as average wealth levels, there are also big differences in how equally wealth is distributed within generations. Overall wealth inequality within cohorts looks to have risen slightly for each successive cohort born during the 1960s, 1970s and 1980s, compared to older cohorts at the same age. No such effect is apparent for those born before 1960.

This effect has principally been driven by shifts in net property wealth, reflecting the different experiences of home ownership mentioned above. For millennials and generation X (those born between 1966 and 1980), poorer families have zero property wealth. By contrast, even those poorer families born in the 1940s or earlier experienced big cohort-on-cohort improvements in levels of net property wealth, pushing down on within-cohort inequality.

Gaps in net financial wealth between poorer and better-off members of older cohorts are very large and have risen in recent years as increases in such wealth have meant typical and wealthier individuals have pulled away from poorer adults. Recent increases in private pension wealth have also benefitted better-off adults most, particularly those born in the 1950s. For both financial and private pension wealth, the tipping point after which cohorts hold less wealth than the cohort before them at the same age comes earlier for lower-wealth adults. For example, the private pension wealth of poorer families stopped improving cohort-on-cohort for those born from the mid-1950s onwards, while for better-off families progress continued until the cohort born in the late 1980s.

Unexpected wealth windfalls – rather than active savings behaviour – explain the majority of families' wealth accumulation in recent decades

Addressing the question of whether the distribution of wealth is fair across generations also requires us to explore the source of the wealth different generations have been able to accumulate.

In particular, this report assesses how much of different cohorts' wealth is the product of active savings behaviour – for example putting income into savings products or a deposit on a house – and how much can be considered windfall gains. Such windfall gains come about 'passively' as a result of external and unexpected impacts on asset values, be they significant house price rises or longevity increases making defined benefit pension entitlements more valuable.

This analysis makes clear that the vast majority (82 per cent) of net property wealth growth since the early 1990s has been driven by the house price boom rather than active savings behaviour, equivalent to a real-terms increase in aggregate net property wealth of £2.3 trillion over the past couple of decades. Indeed in the early 2000s, these passive effects were so large that up to 17 per cent of working-age adults in home owning families made more from their house than their job in some years.

Turning to private pension wealth, we find that significant wealth windfalls from the increasing value of defined benefit pension entitlements due to rising longevity and falling interest rates explain three-quarters of private pension wealth changes between 2006-08 and 2012-14, a windfall totalling £800 billion across families.

Overall, unexpected 'passive' and 'valuation' changes to property and private pension wealth account for most of families' wealth changes in relation to these two most important components of wealth, over the period we are able to analyse. Much of wealth in Britain today is something we hold but not something we have earned. And these windfall gains have boosted wealth levels for the cohorts containing the baby boomers in particular. For example, those born in the 1950s benefited from an average real-terms property wealth windfall of £80,000 over the two decades to 2012-14, and an average pension 'valuation' windfall of £45,000 in the period during and since the financial crisis. The figures for those born in the 1970s – who are too young to have benefited through the entirety of the house price boom – are £35,000 and £10,000 respectively.

Importantly, our analysis raises serious doubts as to whether wealth windfalls of this nature will be replicated for younger cohorts. Certainly they cannot be assumed. This is both because the wider economic shocks driving them look unlikely to be repeated at anything like the same magnitude, and because a smaller proportion of younger cohorts look likely to have the property and defined benefit pensions that would put them in a position to benefit.

By separating out upward pressure on wealth driven by wider economic shifts, our distinction between active savings (and dis-saving) behaviour and passive or 'valuation'-driven wealth changes gives us a more accurate picture of decumulation patterns among older cohorts than standard analysis does. For example, the 1930s cohort actively ran down around 40 per cent of their wealth in real terms between 2006-08 and 2012-14, when they were mainly in their 70s. Nonetheless, decumulation is not as rapid as we would expect if the sole purpose of wealth was to support living standards in later life. It looks like decumulation remains a complicated business, with potential practical barriers to running down property wealth in particular, and assets often earmarked for purposes other than just a retirement income.

The distribution and accumulation of wealth should take greater prominence in economic and policy debates

The absence of wealth from much of our national debate on living standards and inequality extends from analysis to policy making. Both the scale of wealth and profound shifts in the ability of younger cohorts to accumulate it should take greater prominence in current debates.

Even as wealth has risen significantly as a share of national income, the amount of taxation raised from it has fallen or remained flat since the 1980s. This is despite public finance pressures both from the financial crisis and from an ageing population in the coming decades.

Policy responses to that fact are complex and need to recognise not just the scale of wealth held and whether it has been derived from active saving or unexpected windfalls, but also the extent of wealth inequality between and within cohorts. Not all baby boomers were able to benefit from house price rises or fast growth in the value of defined benefit pensions and policy responses need to reflect that fact.

As well as questions of the mix of revenue-raising, a rounded policy response would look at supporting asset accumulation for younger cohorts. That would include policy across all types of wealth – from housing to savings and pensions.

These policy questions will be explored in more detail in subsequent reports for the Intergenerational Commission.

Section 1

Introduction

Wealth takes many forms; from the financial assets associated with savings products to the property rights flowing from home ownership and pension pots linked to long-term saving. The form in which it is held has obvious implications for the precise role that it plays and how it might be used to bolster current and future incomes and opportunities, but wealth is undeniably a major determinant of living standards. With that in mind, the fact that it is much more unevenly distributed than incomes is a source of significant concern for those interested in economic equity and efficiency. Yet our understanding of wealth dynamics – and of what might come next – is limited.

This matters especially from an intergenerational perspective, where evidence suggests that younger generations are facing wealth accumulation challenges that differ significantly from those who came before them, with serious long-term repercussions. Understanding how the wealth picture varies both within and across generations is therefore central to formulating policy responses that can best support asset building in a way that boosts living standards across society.

In this major study of wealth for the Intergenerational Commission, we dig in some detail into this issue – focusing on both intra- and inter-generational wealth trends. This introductory chapter documents the broad problem statement from the perspective of younger groups, incorporating weak earnings growth, home ownership rates that have tumbled and the closing of generous pension schemes to new entrants.

Wealth serves a variety of purposes for families over the life cycle

As previous analysis for the Intergenerational Commission has detailed,[1] concerns about the living standards of younger adults are now widespread. Across a range of measures, millennials (the generation born between 1981 and 2000) appear to be faring less well than older generations at the same age. And while these trends have an important impact in the here and now, they also have longer-term consequences. Nowhere is that clearer than in relation to the feed-through to wealth accumulation.

From a living standards perspective, wealth levels and accumulation patterns matter for a number of reasons. Most obviously, wealth is a key determinant of income and quality of life in retirement.[2] This is the primary function of a private pension, and what many people have in mind when they build up financial assets or direct resources into property ownership. But there is evidence that older families don't run down their

1 For a summary, see: L Gardiner, *Stagnation generation: The case for renewing the intergenerational contract*, Resolution Foundation, July 2016

2 J Hills, 'Introduction' , in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

wealth to the extent we would expect if this were the only use of their assets.[3] In part this might reflect the fact that releasing assets to support retirement living standards is not always straightforward, but it also suggests that wealth serves other purposes.

Brief consideration highlights numerous alternative uses. Capital can diversify the range of sources families draw an income from and, in the case of houses and pensions, hedge against future cost increases or changes in circumstance. In so doing, assets can provide security from economic fluctuations or policy changes that affect incomes. Both the safety net and leverage offered by asset-holding can also allow for greater risk-taking in the form of entrepreneurialism. For example, housing equity can provide those starting their own business with the collateral necessary for getting a venture off the ground. And – sometimes overlooked from an economic perspective – the accumulation of wealth almost certainly reflects a desire among individuals to pass resources onto younger generations within families, both during lifetimes and after death.

There will be a range of other ways in which families use wealth over their lifetimes, but it is clear from even this brief discussion that a 'build up, spend down' model of life cycle wealth is too simplistic.

But wealth is unevenly held, and several indicators point to a particular asset accumulation problem for today's younger people

Given that wealth clearly matters, the well-documented unevenness of its distribution across society should clearly be a cause for concern. Wealth is significantly more concentrated than income, as we explore in Section 2. Unsurprisingly, it is also disproportionately held by older households. However, while this in part reflects obvious life-cycle effects, there appears to be an increasingly important generational twist to this issue. In this report, we dig in detail into differences in wealth accumulation both between and within cohorts, by way of better understanding the asset-building challenge. Below, we offer some initial headline indications of why this challenge looks especially marked for younger groups.

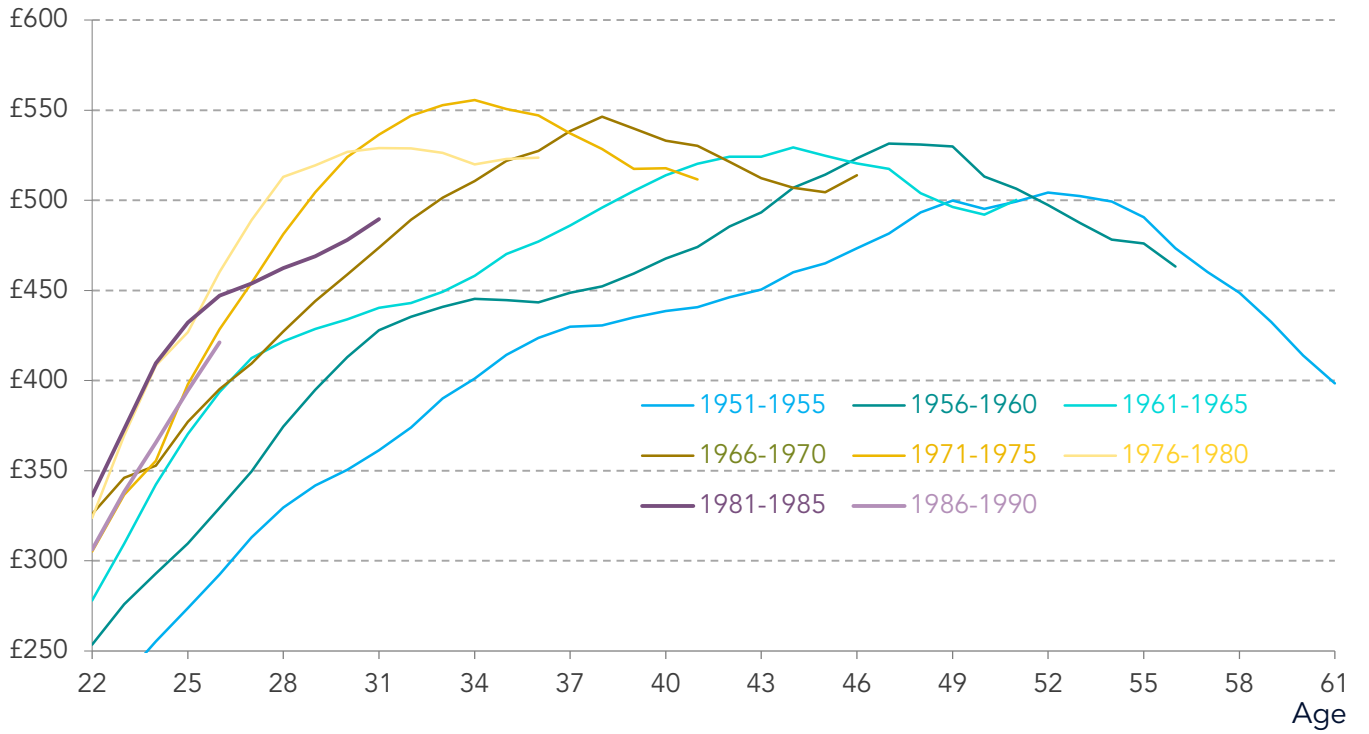
On earnings, the 20th Century was characterised by a historical pattern in which the typical pay of each cohort surpassed that of those coming before it at any given age. However, as Figure 1 shows, this cohort-on-cohort progress has come to a halt for younger workers. At age 30, those born in 1981-85 earned £40 less per week than those born 10 years earlier. Those born in 1986-1990 fared even worse, broadly tracking the earnings of the 1971-75 cohort.[4] While lower-than-expected earnings clearly have an impact on these groups today and how they live, this outcome also makes saving money for the future more challenging.

3 R Crawford, *Wealth – why do we care and what do we know?*, Institute for Fiscal Studies, April 2016

4 For further discussion of these trends and the factors underlying them, see: L Gardiner & P Gregg, *Study, work, progress, repeat? How and why pay and progression outcomes have differed across cohorts*, Resolution Foundation, February 2017

Figure 1: **Median pay by age for each five-year birth cohort: 1975-2016, UK**

Median real weekly pay for all employees, CPIH-adjusted to 2017 prices



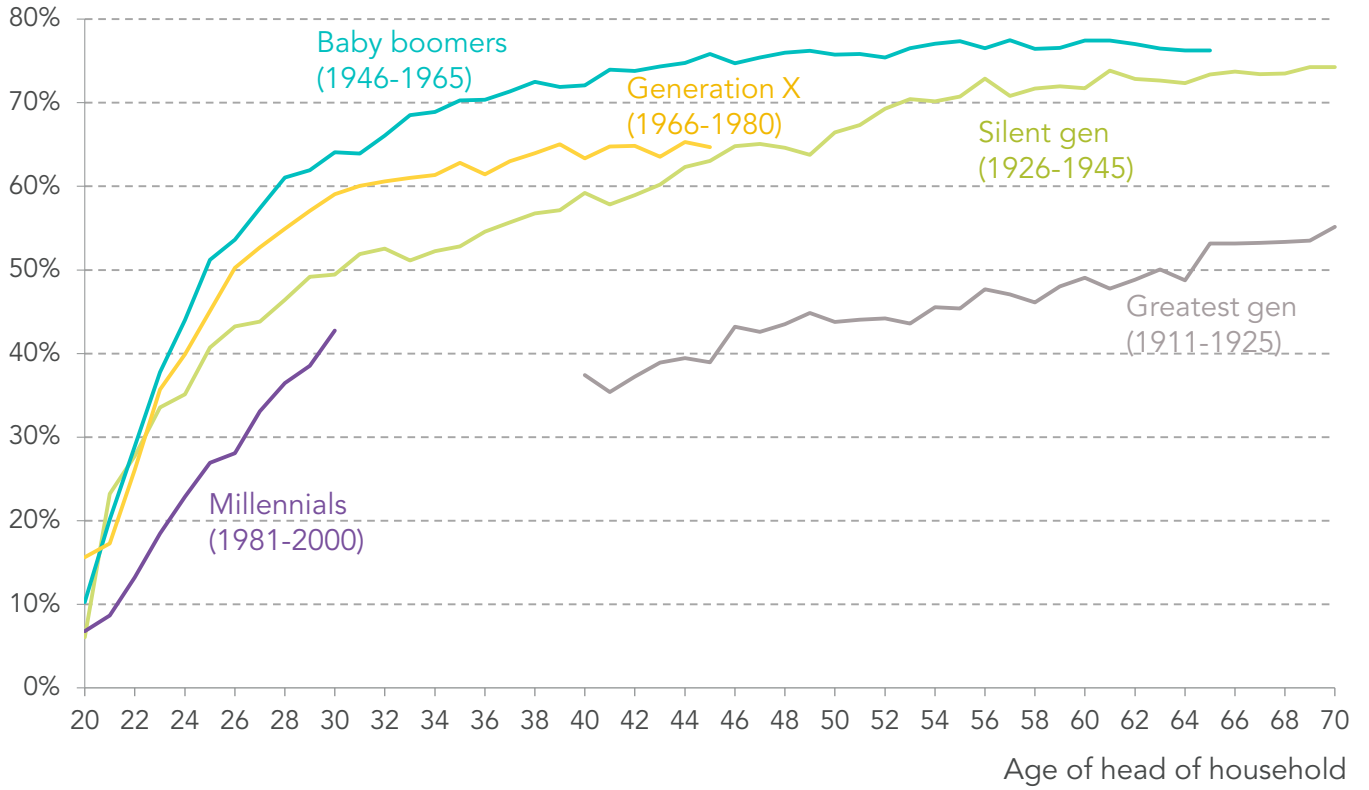
Notes: Figures for each cohort are derived from a weighted average of estimates by single year of age for each single-year birth cohort; cohorts are only included if all five birth years are present in the data. For the years in which it is available, published Annual Survey of Hours and Earnings pay 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: RF analysis of ONS, *Quarterly Labour Force Survey*; ONS, *Annual Survey of Hours and Earnings*; ONS, *New Earnings Survey Panel Dataset*

While the picture on earnings is striking, an even larger gap has opened up between younger and older cohorts on home ownership. As depicted in Figure 2, baby boomer households – those born between 1946 and 1965 – were 50 per cent more likely to own a home at age 30 than millennials currently are.[5]

5 L Gardiner, *Stagnation generation: The case for renewing the intergenerational contract*, Resolution Foundation, July 2016

Figure 2: **Household home ownership rates by age for each generation: 1961-2016, UK**



Notes: Figures for each generation are derived from a weighted average of estimates by single year of age for each single-year birth cohort within that generation; generations are included if at least five birth years are present in the data; results from other datasets are indexed to those from the Family Resources Survey to create a consistent series over time.

Source: RF analysis of ONS, *Labour Force Survey Household Datasets*; DWP/ ONS, *Family Resources Survey*; ONS, *General Household Survey*; ONS, *Family Expenditure Survey* (Institute for Fiscal Studies datasets)

As with pay, this has immediate consequences. More millennials locked out of home ownership means a higher share have remained in the private rented sector for longer. With rent tending to cost more than mortgage payments, this trend has meant that housing costs have been eating up more of their already stunted pay packets.

But these outcomes also have long-term implications. To the extent that some younger families will find the point at which they buy delayed, shifting housing trends increase the likelihood that they will be carrying mortgage debt into retirement. For those who never manage to buy, the new reality implies that rent will remain payable in later life in a way that doesn't happen for many (though of course by no means all) of today's older population.

While slower pay growth and lower home ownership rates suggest a clear and negative pattern on wealth accumulation, the picture on pensions is more nuanced.

On the one hand, there has been a dramatic decline in recent years in the availability of generous defined benefit (DB) occupational pension schemes, with younger workers much less likely to benefit than those who came before them. In their early 30s, less than one-in-ten private sector employees born in the early 1980s were active members of a DB scheme; this compares with more than 15 per cent of those born in the 1970s and nearly 40 per cent of those born in the 1960s.[6]

6 J Cribb, A Hood & R Joyce, *The Economic Circumstances of Different Generations: The Latest Picture*, Institute for Fiscal Studies, September 2016

On the other hand, the pension prospects of younger workers have been boosted somewhat by the introduction and development of auto-enrolment from 2012. Occupational pension coverage has jumped substantially as a result of the policy, albeit with employees predominantly placed into defined contribution (DC) pension schemes that are typically much less generous in retirement than DB schemes.

Taken in combination, these countervailing trends mean that more people in younger cohorts are likely to have *some* level of pension provision, but fewer will have a relatively large private pension to rely upon in later life. They also open up the prospect that particular cohorts of workers who entered the workforce as access to DB schemes began to tighten but before the introduction of auto-enrolment might effectively be falling through the cracks of pensions policy.

The scope of this report

With a growing body of evidence raising alarm bells in terms of the asset accumulation of younger generations, a deeper understanding of cohort wealth trends is essential to situating the debate about today's intergenerational differences in their longer-term consequences. Building on a limited body of previous work on cohort wealth patterns,[7] this is the understanding this report seeks to provide.

The report shines a light on wealth differences across and within generations and the ways in which wealth is built up, before reflecting on what these findings might suggest for policy. As a broad, introductory study of wealth dynamics, it does not deal with all the issues touched on here in detail. Instead, subsequent reports for the Intergenerational Commission will provide deeper dives on issues such as housing affordability and security; pension savings adequacy; and intergenerational wealth transfers. This report provides context for those future papers by setting out a clear description of trends over time.

The report is set out over five further sections, as follows:

- **Section 2** provides an **overview of wealth in Great Britain**, establishing the different elements of wealth and changes over time;
- **Section 3** examines assets through a cohort lens, exploring **wealth patterns both across cohorts and within them**;
- **Section 4** digs deeper into how cohorts build up their wealth over time, focusing specifically on the **respective roles of active savings behaviour and wealth increases driven instead by wider economic shifts**;
- **Section 5** concludes by bringing these findings together and reflecting on **how policy might need to respond**; and
- **Section 6** is comprised of **two annexes**. The first presents supplementary analysis of cohort wealth trends, while the second offers more detail on the data sources and methodological approach used.

7 For example, see: R Boreham & J Lloyd, *Asset Accumulation across the Life Course*, International Longevity Centre, September 2007; R Crawford, D Innes & C O'Dea, *The Evolution of Wealth in Great Britain: 2006-08 to 2010-12*, Institute for Fiscal Studies, November 2015; J Cribb, A Hood & R Joyce, *The Economic Circumstances of Different Generations: The Latest Picture*, Institute for Fiscal Studies, September 2016

Section 2

Wealth in Great Britain: Evolution and distribution

Accurately measuring and comparing wealth is not straightforward, but it is clear that it is a big deal. Over the long- and shorter-term, the real-terms value of aggregate wealth has increased substantially, such that total net wealth now stands at nearly six-and-a-half times national output. During the 1990s and 2000s these increases were driven by rising net property wealth, while private pension wealth has been the biggest factor most recently.

While the total value of wealth dwarfs the annual flow of income, so too does the unevenness of its distribution. Half of the country's wealth is held by just 10 per cent of adults and the wealth Gini coefficient is roughly double the income equivalent. Yet wealth inequality appears to have declined between the mid-1990s and mid-2000s, driven by rising home ownership spreading net property wealth more widely. In contrast, more recent falls in home ownership – particularly among less wealthy families – have produced the opposite effect, contributing to a mild uptick in overall wealth inequality since the financial crisis.

The key facts on wealth are less well-known than on incomes or earnings, but no less important

Compared to earnings from employment and overall household income, wealth trends are much less comprehensively documented in the UK. In large part this is due to undoubted difficulties in accurately measuring wealth, with the value of assets often volatile and the wealthiest individuals less likely to take part in surveys. In recent years though, a number of datasets and researchers have helped to shine a light on this vital but less illuminated part of the living standards debate.

The most significant step forward has been the launch of the *Wealth and Assets Survey* (WAS) in 2006, a large, detailed survey of wealth across Britain over the course of regular 'waves' of time. Prior to this, it is not possible to produce such a complete account of wealth, though the *British Household Panel Survey* (BHPS) that we utilise in this report provides information on some forms of wealth from the early 1990s onwards and has been used to good effect by other researchers.[8] By focusing on internally-consistent trends in these two sources (and also the *English Longitudinal Study of Ageing* when looking at older people's pension wealth) and stitching these together as best we can we produce an inevitably imperfect, but nonetheless useful, picture of longer-term trends in wealth accumulation.[9] Box 1 below and Annex 2 discuss the data and methods used in our study in more detail.

8 For example, see: J Banks, R Blundell & J Smith, *Wealth portfolios in the UK and the US*, UCL Discussion Papers, 2002; T Crossley & C O'Dea, *The wealth and saving of UK families on the eve of the crisis*, Institute for Fiscal Studies, July 2010

9 Northern Ireland is not included in the Wealth and Assets Survey. Because it did not feature in the original BHPS sample either, Northern Ireland is also excluded from our analysis of BHPS.

i Box 1: The data used in this report

Our preferred data source for analysing wealth trends is the *Wealth and Assets Survey* (WAS) conducted by the Office for National Statistics. This is a longitudinal survey of households in Great Britain specifically designed for the purpose of accurately capturing wealth. Four waves of WAS have been published so far, covering the period between 2006-08 and 2012-14.

Because of this limited time period, we use other datasets to extend trends observed in WAS backwards and forwards. To expand our analysis of net property wealth and net property and financial wealth combined, we use the *British Household Panel Survey* and *Understanding Society*, which cover the period 1993–2014-15. And to expand our analysis of private pension wealth for those aged 50 and over we use the *English Longitudinal Study of Ageing*, covering the period 2002-03–2014-15.

Because of the coverage of our data, the majority of the analysis in this report covers Great Britain.

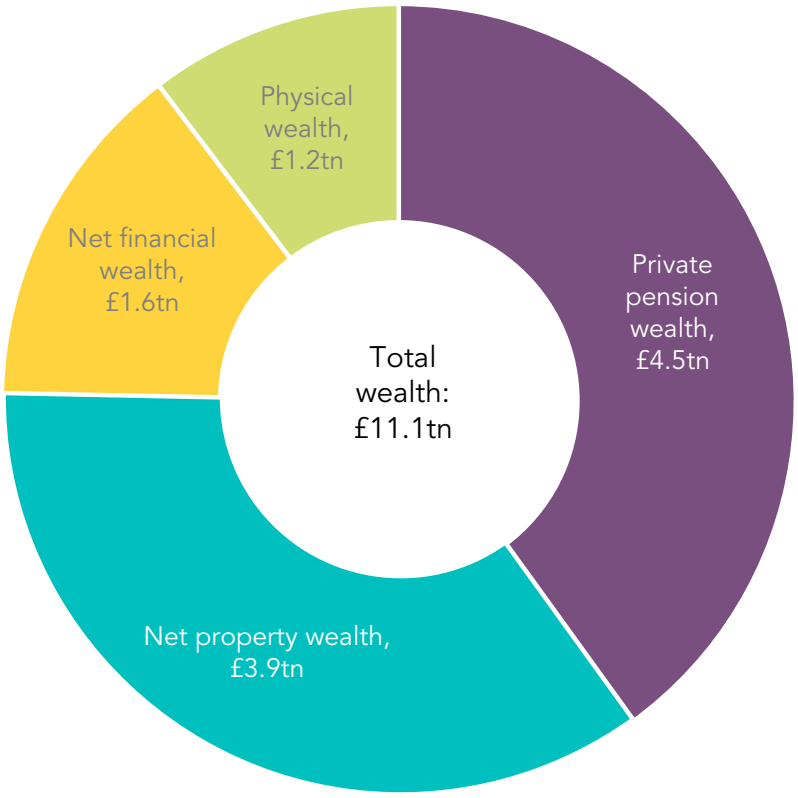
Apart from in the snapshot charts at the beginning of this section, we express wealth and wealth changes in real terms, with values uprated using CPIH to prices in the first quarter of 2017.

UK households hold more than £11 trillion in wealth, with private pensions and property comprising roughly three-quarters of the total

So what is wealth comprised of? As a starting point we turn to the definition used in WAS, which divides Britain's wealth into four components: net financial wealth, private pension wealth, net property wealth and physical wealth. The latest data puts the sum of these different elements at £11.1 trillion, as shown in Figure 3.

Figure 3: **Total net wealth: 2012-14, GB**

Nominal prices



Source: ONS, *Wealth and Assets Survey*

Studies differ in their approach to defining wealth and its components. For instance, some include estimates of state pension rights within people's wealth. This is not an approach we take due to data availability and because it is not entirely clear why the state pension should be treated differently to other welfare benefits.[10] But it should be noted that the changing value of state support for pensioners can act as an important head- or tail-wind to cohort differences in private pension wealth discussed here.

Equally, a case could be made for ignoring pension wealth altogether – on the basis that it is not generally available to be used by a working-age household and so has as a more restricted impact on living standards over lifetimes. However, given its size – total private pension wealth is £4.5 trillion, or over two-fifths (40 per cent) of total net wealth – and its centrality to intergenerational issues and life-cycle living standards dynamics, we choose to include private pension wealth in this analysis.

As Figure 3 makes clear, the next largest form of wealth is property. This comprises £3.9 trillion, or roughly one-third (35 per cent) of total net wealth. Again though, this valuation is not without its controversy. Within WAS, the value of property is given by the survey respondent based on their estimate at the time. Given the fact that house prices can change rapidly and that self-reported estimates may be subject to some bias in either direction, this approach is clearly open to some dispute. Property wealth also

10 J Hills & F Bastagli, 'Trends in the Distribution of Wealth in Britain', in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

represents a relatively illiquid form of asset, with transaction costs potentially reducing its realisable value. Notwithstanding these limitations however, this approach to valuing net property wealth remains the most accepted means of capture.

The final two elements of wealth depicted in Figure 3 cover net financial wealth (which accounts for £1.6 trillion, or 14 per cent of total net wealth) and physical wealth (totalling £1.2 trillion, or 10 per cent of the aggregate figure). We include the former in our study but exclude the latter, due to incomplete coverage in WAS and in particular concerns about the way survey respondents are asked to value physical wealth.[11] This form of wealth is more evenly shared across the population than many other components, meaning its exclusion makes the distribution of wealth look somewhat more unequal than it otherwise would. Nevertheless, the scale of such wealth is clearly much smaller than other elements – in particular pensions and property.

Focusing on individuals, families or households provides differing views of wealth, but all show strong life-cycle patterns

As well as the components of wealth captured, wealth studies differ in terms of *who* the analysis is concerned with. A number of options are available.

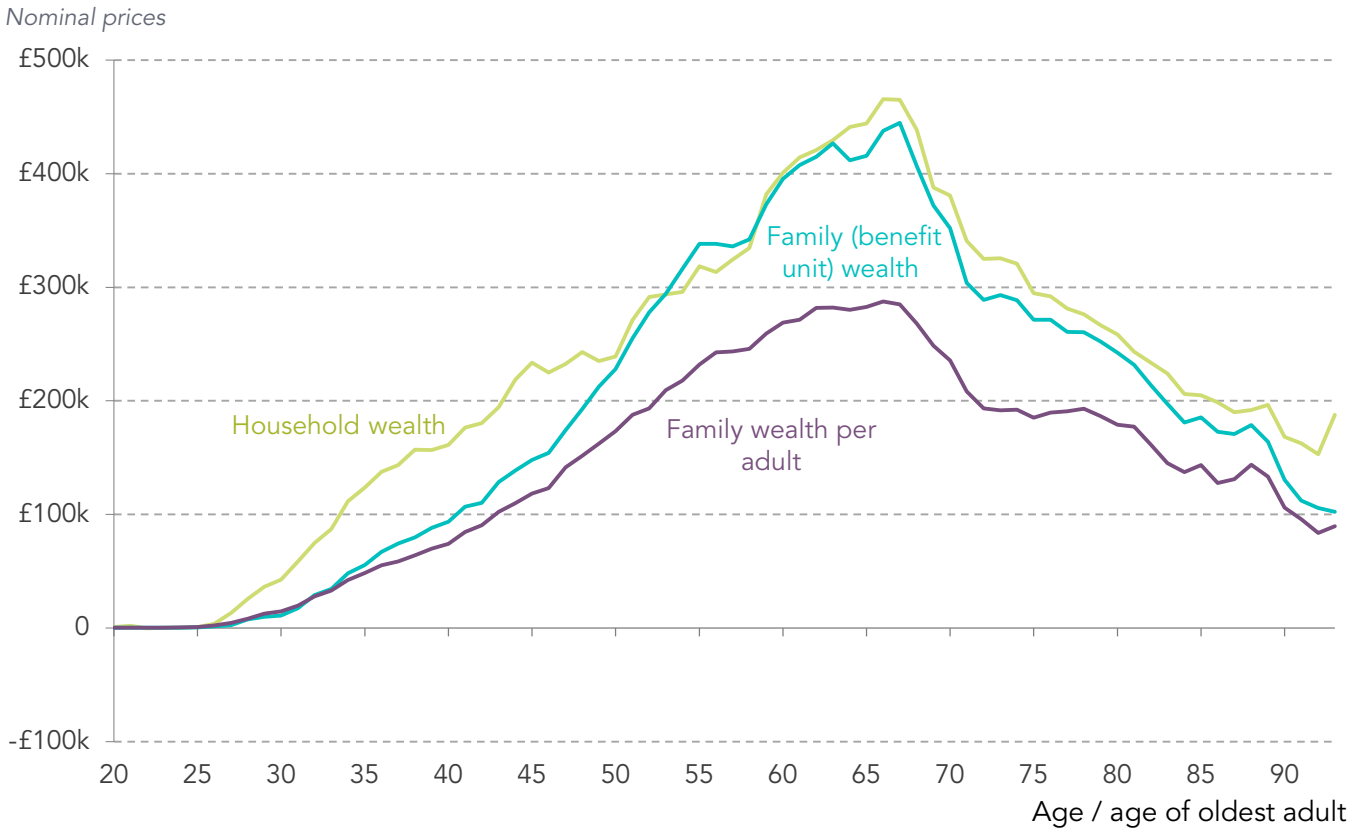
While individual-level data allows us to focus on key differences in wealth *within* households – exploring, for example, questions around the distribution of wealth between male and female partners – arguably it underplays differences across the population that flow from the nature of household formation. A household approach avoids these issues but becomes more complicated when looking through a generational lens as we do in this report, given the possibility of – for example – adult children living with their parents or retired parents with care needs moving in with their children.

Sitting somewhere in between these two, our preferred approach is to look at families or 'benefit units' – singles or couples and, if applicable, their dependent children. To avoid couples appearing significantly wealthier than single-person families, we present figures on a per-adult basis; that is, dividing total family wealth by two for a couple and by one for an adult on their own or living as a single parent.

Figure 4 illustrates the difference these distinctions make to median wealth across the life course. At younger ages, the clearest gap is between households and the two family measures. This is likely to reflect both the presence of adult children in the family home (which makes household wealth look higher than benefit unit wealth) and the dominance of single-person families (which means there is little difference between a total family wealth measure and a per-adult one). The importance of capturing wealth on a per-adult basis becomes clearer at older ages, with a significant gap opening up between the two different family wealth measures.

11 Respondents are asked about the replacement value of their physical assets, which is generally much higher than its marketable value. For more information, see: R Crawford, D Innes & C O'Dea, *The Evolution of Wealth in Great Britain: 2006-08 to 2010-12*, Institute for Fiscal Studies, November 2015

Figure 4: **Median total net wealth by age, various units of analysis: 2012-14, GB**



Notes: Excludes physical wealth.

Source: RF analysis of ONS, *Wealth and Assets Survey*

Throughout the body of this report we focus on family wealth per adult, but we return to the question of how wealth varies if different measures are used in Annex 1. We also include a specific focus on the question of gender in Section 3.

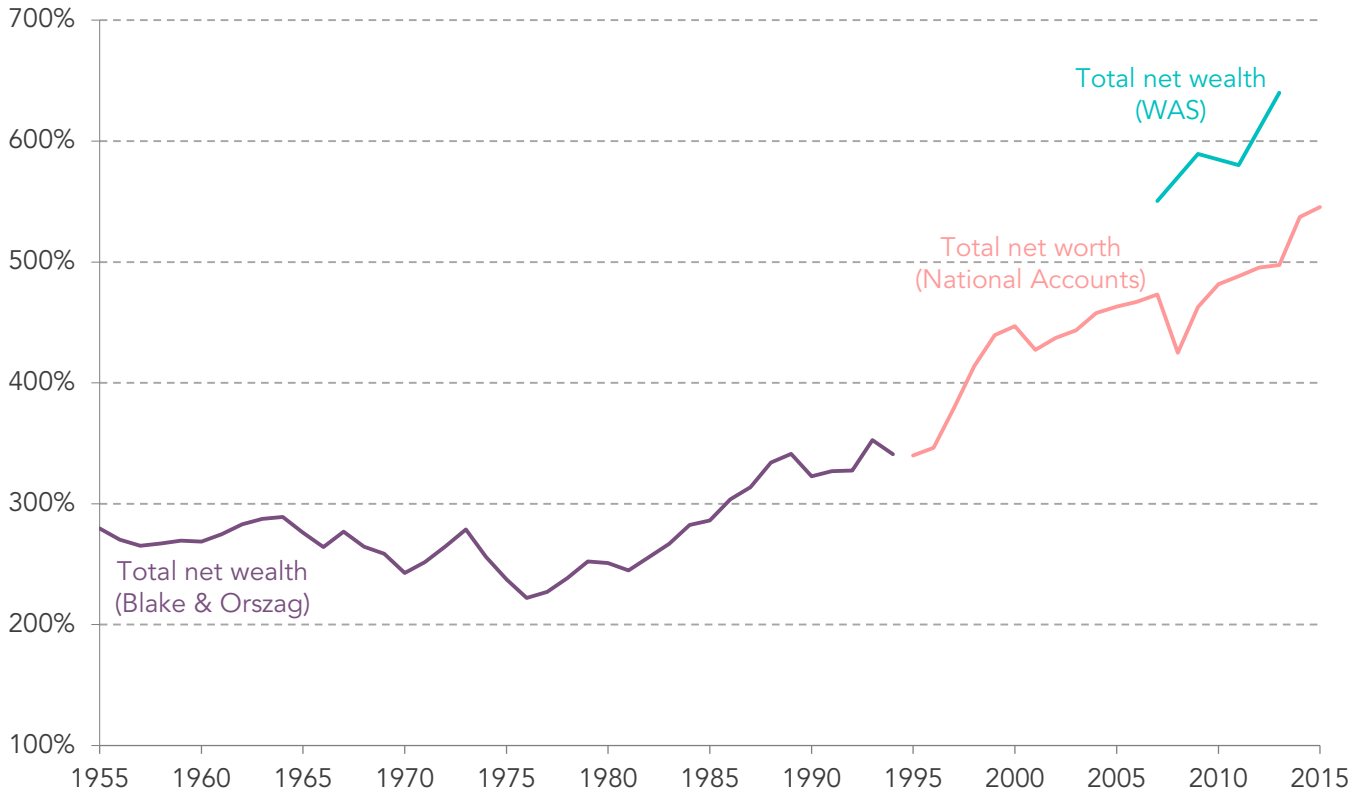
As well as differences depending on the unit of analysis, Figure 4 makes clear that all approaches to assessing wealth trends show strong life-cycle effects. In all instances, median wealth peaks around retirement age before being run down in later life. These life-cycle trends are a strong driver of the inequality in wealth that we discuss later in this section. For the purpose of comparing different birth cohorts, they also make it particularly important to focus on outcomes *at the same age* – which is the approach we take in Section 3.

Wealth has grown in relation to prices and the size of the economy over both a short and long timeframe

The BHPS and WAS – the main two data sources on which this report is based – limit the scope of our detailed analysis to the past two decades or so. To provide an illustrative picture of longer-term trends in wealth, Figure 5 makes use of work by Blake and Orszag[12] and the UK's National Accounts.

12 D Blake & J Orszag, 'Annual estimates of personal wealth holdings in the United Kingdom since 1948', *Applied Financial Economics 9*, 1999

Figure 5: **Aggregate wealth as a percentage of GDP: 1955-2015, GB/UK**



Notes: Wealth measures cover net property wealth, net financial wealth, private pension wealth and physical wealth. Blake & Orszag and National Accounts measures, and GDP data, cover the UK; the WAS measure covers Great Britain.

Source: D Blake & J Orszag, 'Annual estimates of personal wealth holdings in the United Kingdom since 1948', Applied Financial Economics 9, 1999; ONS, UK National Accounts; ONS, Wealth and Assets Survey

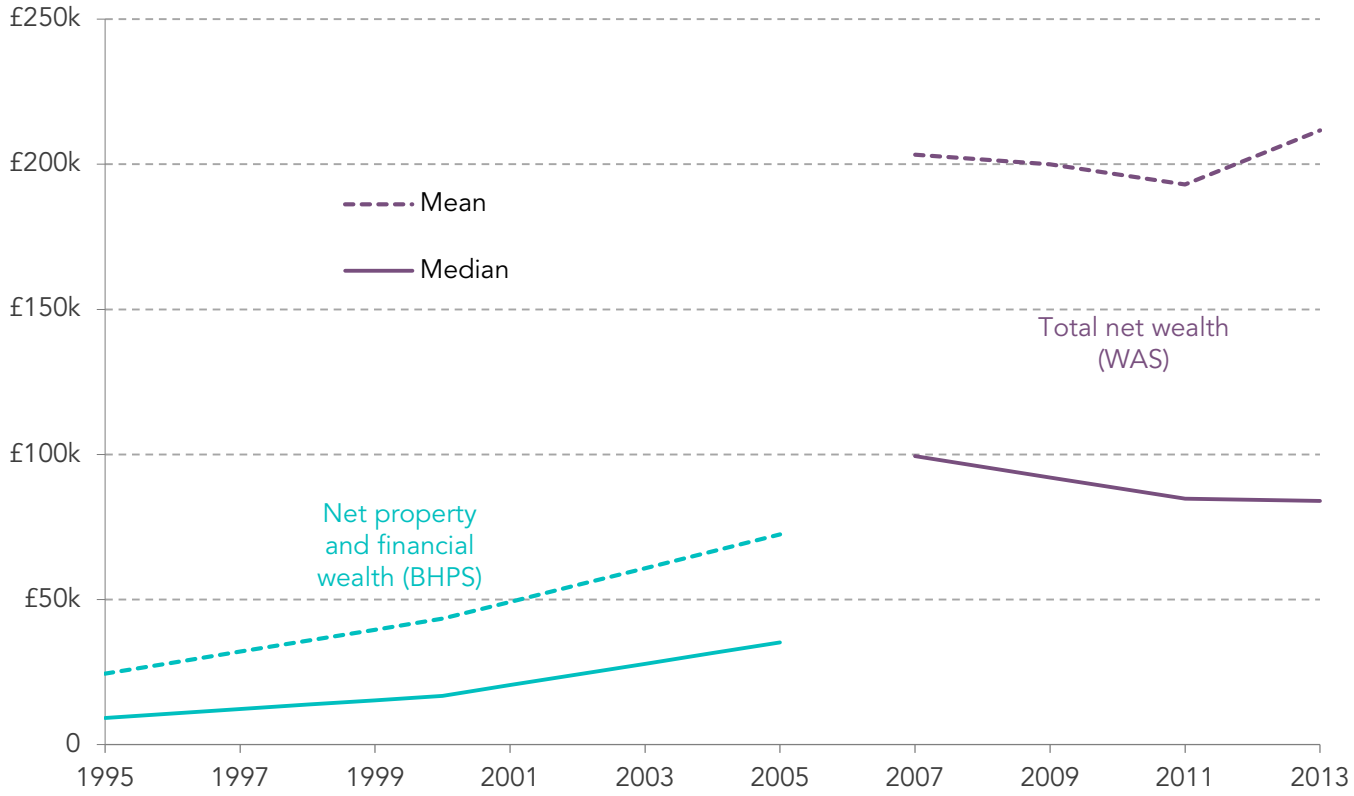
It shows that between 1955 and 1980, total net wealth consistently averaged around 2.6 times total GDP. In cash terms net wealth increased from £1.1 trillion to £2.2 trillion over this period, but this rise was in line with changes in national income. The ratio then climbed steadily through the 1980s, reaching 3.2 times GDP (and just over £4 trillion) by 1990.

Switching to different datasets after this point produces slightly different estimates of the total value of wealth. Nevertheless, there is a consistent picture after 1995 of wealth rising as a share of GDP. WAS – the most complete and up to date source – valued aggregate wealth at 5.5 times GDP by 2006-08, a figure that had risen to 6.4 times GDP by 2012-14.

Figure 6 focuses in on the most recent couple of decades, during which time wealth appears to have grown in importance. In this instance, we look not at aggregate wealth across the population but at our preferred measure of average family wealth per adult. The inconsistency of wealth coverage across the two sources we use means that the pre- and post-2005 trends cannot be directly compared, but the two series are internally consistent. The picture that forms is of rising real average wealth in the decade before the financial crisis, and relative stability during and since, with the story varying depending on the average used. The typical (median) wealth of adults in the UK fell by 15 per cent (from £99,000 to £84,000) between 2006-08 and 2012-14, while the mean rose by 4 per cent in real terms.

Figure 6: **Average family wealth per adult, various measures: 1995–2012-14, GB**

Mean and median, CPIH-adjusted to 2017 prices



Notes: Total net wealth excludes physical wealth.

Source: RF analysis of Institute for Social and Economic Research (ISER), *British Household Panel Survey*; ONS, *Wealth and Assets Survey*

In terms of the different components of wealth, previous research has shown that rising property wealth played the biggest role in driving wealth upwards during the 1990s and 2000s,[13] while private pension wealth has been the fastest-growing component of wealth in the more recent period.[14] A large part of this most recent trend relates to the fact that the way in which DB pensions are valued is sensitive to external economic trends as well as the accrual of pension rights – an issue we return to in detail in subsequent sections.

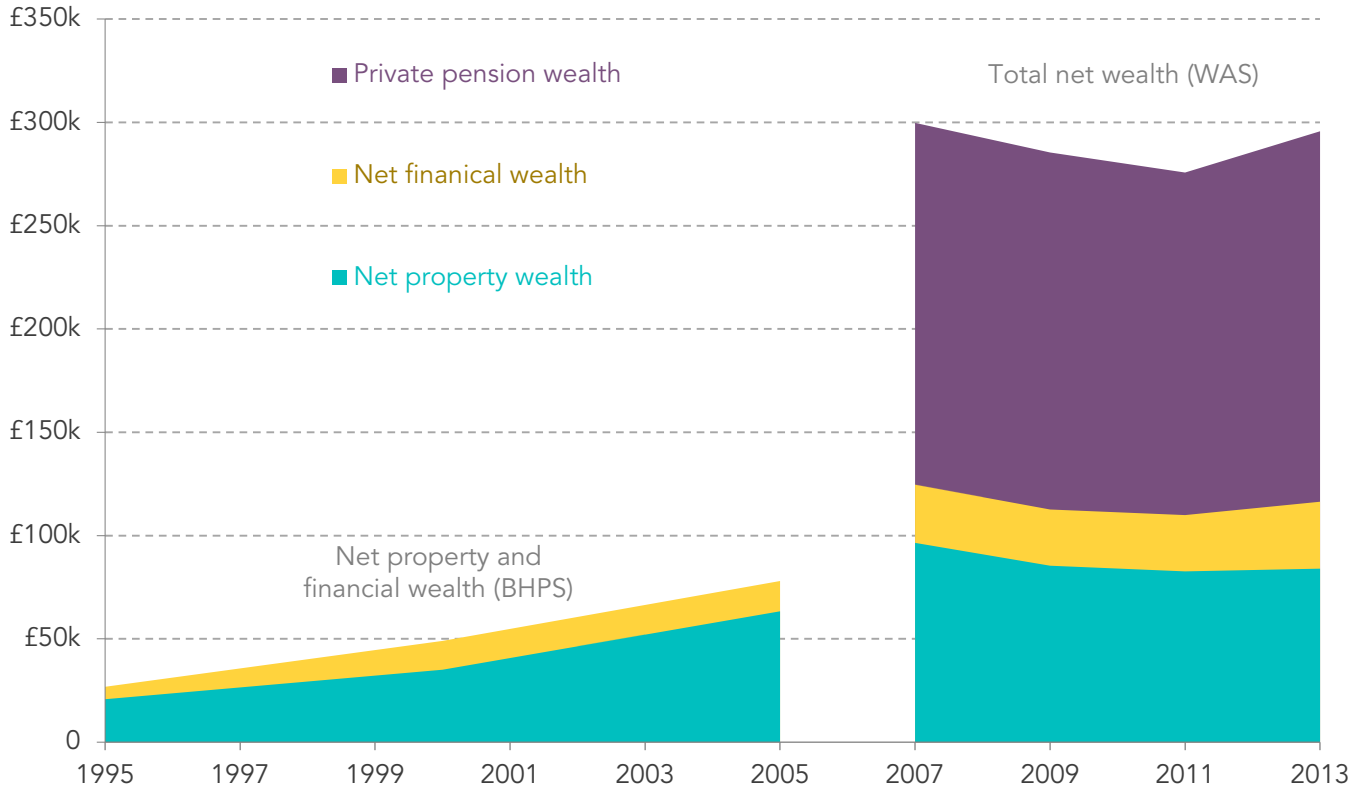
Figure 7 illustrates some of these shifts. Between 1995 and 2005, mean net property wealth rose by 205 per cent (with growth at the median proving even stronger at 339 per cent). Over the same period, mean net financial wealth grew by 143 per cent. In the more recent WAS period, these patterns are clearly very different. Between 2006-08 and 2012-14, net property wealth fell both at the mean (by 13 per cent) and at the median (by 43 per cent). Mean net financial wealth remained broadly flat in this latter period, rising by just 15 per cent. Private pension wealth, for which we do not have data in the earlier period, rose by 21 per cent at the mean and 32 per cent at the median.

13 E Karagiannaki & J Hills, 'Inheritance, Transfers, and the Distribution of Wealth, in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

14 ONS, *Wealth in Great Britain Wave 4: 2012 to 2014*, December 2015

Figure 7: **Mean family wealth per adult and its components: 1995–2012-14, GB**

CPIH-adjusted to 2017 prices



Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *Wealth and Assets Survey*

Despite this more recent experience, it's clear that the nature of wealth in Britain remains very different today from the picture of the mid-1990s. It is significantly larger, with private pension and net property wealth proving especially important. Adjusting for inflation, average family net property wealth per adult was just under £15,000 higher than average family net property wealth per adult in 1995; by 2012-14, that gap had almost tripled in absolute terms, to nearly £52,000.[15]

Wealth inequality is high, but has fallen in recent decades

How wealth is distributed across the population has become an increasingly popular topic in economics. As work by Thomas Piketty and colleagues has highlighted, during the middle of the 20th Century the share of wealth controlled by the very wealthiest households fell in many advanced economies.[16] The UK was no exception: while 1 per cent of individuals owned approximately three-fifths of total UK wealth in the 1920s, a combination of the Second World War, economic growth and policy change meant that proportion had fallen to one-fifth by the 1970s.[17]

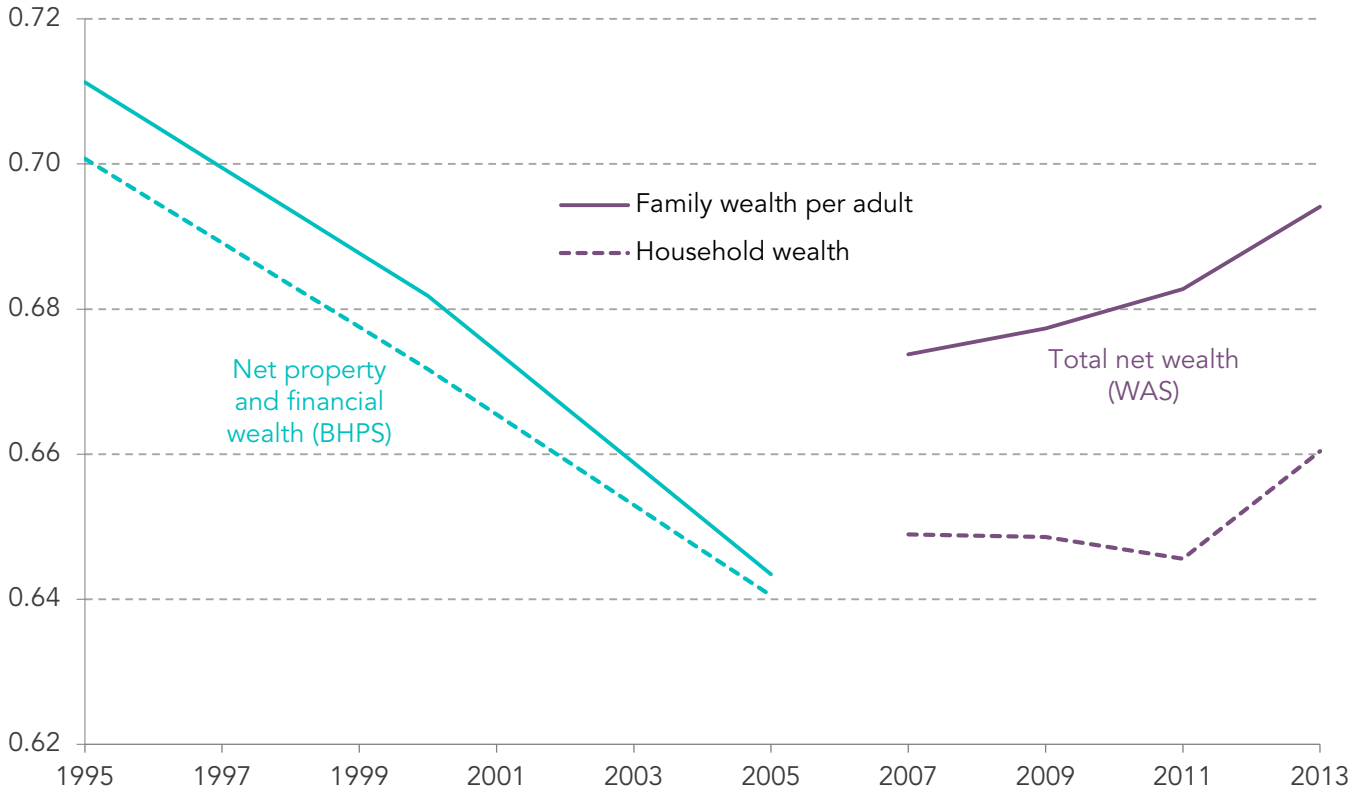
15 It should be noted that these gaps are captured in different datasets at these two points in time.

16 T Piketty, *Capital in the Twenty-First Century*, Harvard University Press, April 2014; The World Wealth and Income Database is accessible through http://wid.world/

17 J Hills & F Bastagli, 'Trends in the Distribution of Wealth in Britain', in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

Since then, and particularly in the past two decades or so – the period on which this report focuses – there has been less drastic change in wealth inequality. By way of illustrating this, Figure 7 presents Gini coefficients for the different measures of wealth set out in Figure 6. The Gini coefficient allows us to quantify how equally a resource is distributed, where 0 represents perfectly equality (with each household or family having the same) and 1 represents perfect inequality (where one household or family has everything).

Figure 8: **Gini coefficient for wealth, various measures: 1995–2012-14, GB**



Notes: Total net wealth excludes physical wealth.

Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *Wealth and Assets Survey*

The lines on the left-hand side of the chart present the Gini coefficient for net property and financial wealth only – reflecting the available BHPS data. They suggest that the period from 1995 to 2005 was one of declining inequality, with the Gini coefficient falling from 0.71 to 0.64 on a family-wealth-per-adult basis.[18] As Figure 6 showed, typical wealth rose in this period from £9,000 to £35,000 in real terms, indicating that this was a time of shared wealth growth.

The later years covered by Figure 8 (the lines on the right-hand side of the chart) use the broader measure of total net wealth including private pension wealth that the WAS

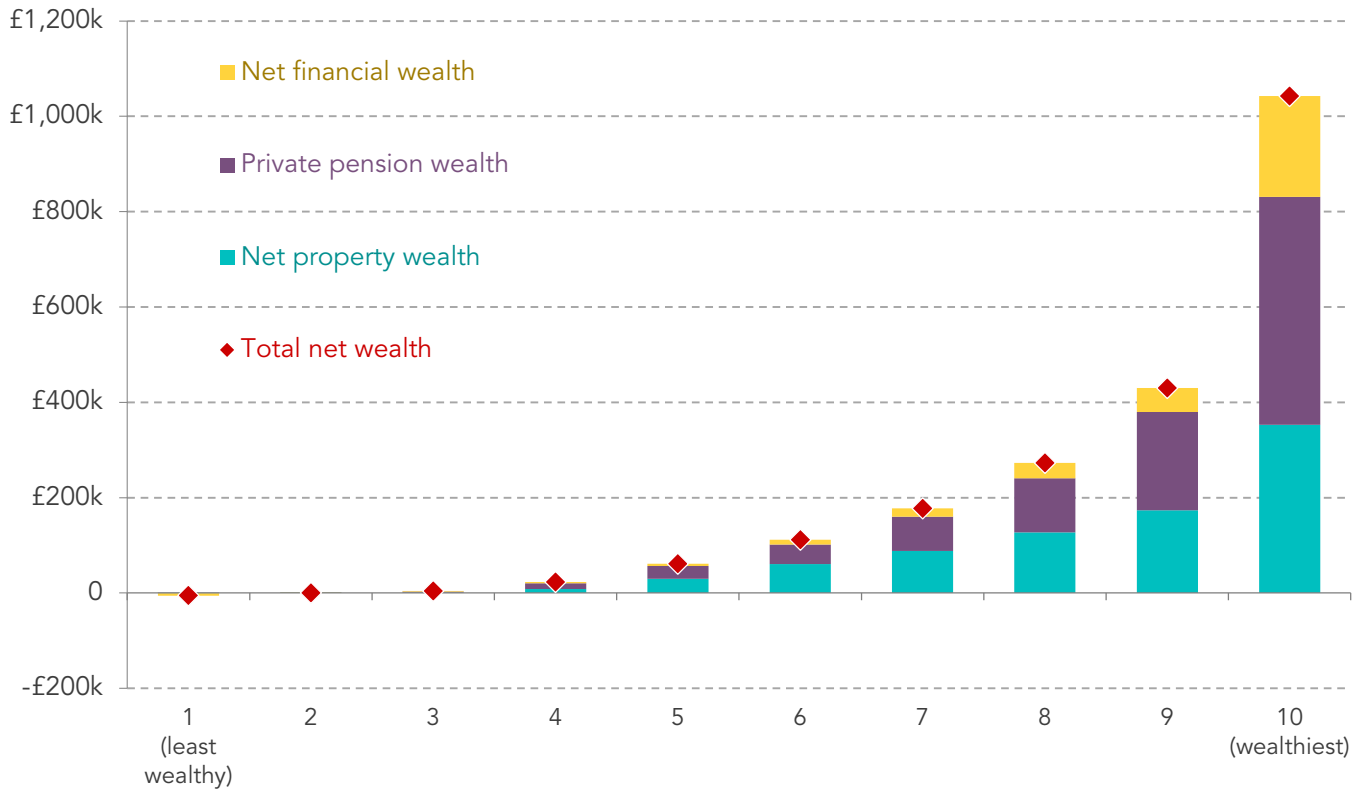
18 Wealth generally looks less unequal the larger the unit of analysis. This is why family wealth per adult – breaking down households into their constituent family units where appropriate – produces a higher Gini coefficient.

allows for (although we exclude physical wealth as discussed above).[19] In this instance, the Gini coefficient remains relatively stable, increasing slightly on a family-wealth-per-adult basis from 0.67 in 2006-08 to 0.69 in 2012-14. With Figure 6 showing that overall mean and median wealth values remained flat or fell over these years, this period stands in contrast to the earlier one as one in which wealth growth slowed and wealth became marginally more concentrated.

Undoubtedly, falling wealth inequality has been the over-riding trend of the past 100 years, but it's important to highlight that wealth remains very unequally shared. As shown in Figure 9, many adults own very little or no net wealth. In contrast, the average net wealth held by adults in the top 10 per cent topped £1 million. This group accounted for nearly half (49 per cent) of all Britain's wealth in 2012-14, with the top 1 per cent alone owning 14 per cent of the wealth. Even this figure may be something of an under-estimate. Though WAS oversamples richer households, the very wealthiest are still unlikely to be fully captured in surveys.

Figure 9: **Mean wealth within deciles of family total net wealth per adult distribution, by component of wealth: 2012-14, GB**

CPIH-adjusted to 2017 prices



Notes: Total net wealth excludes physical wealth.

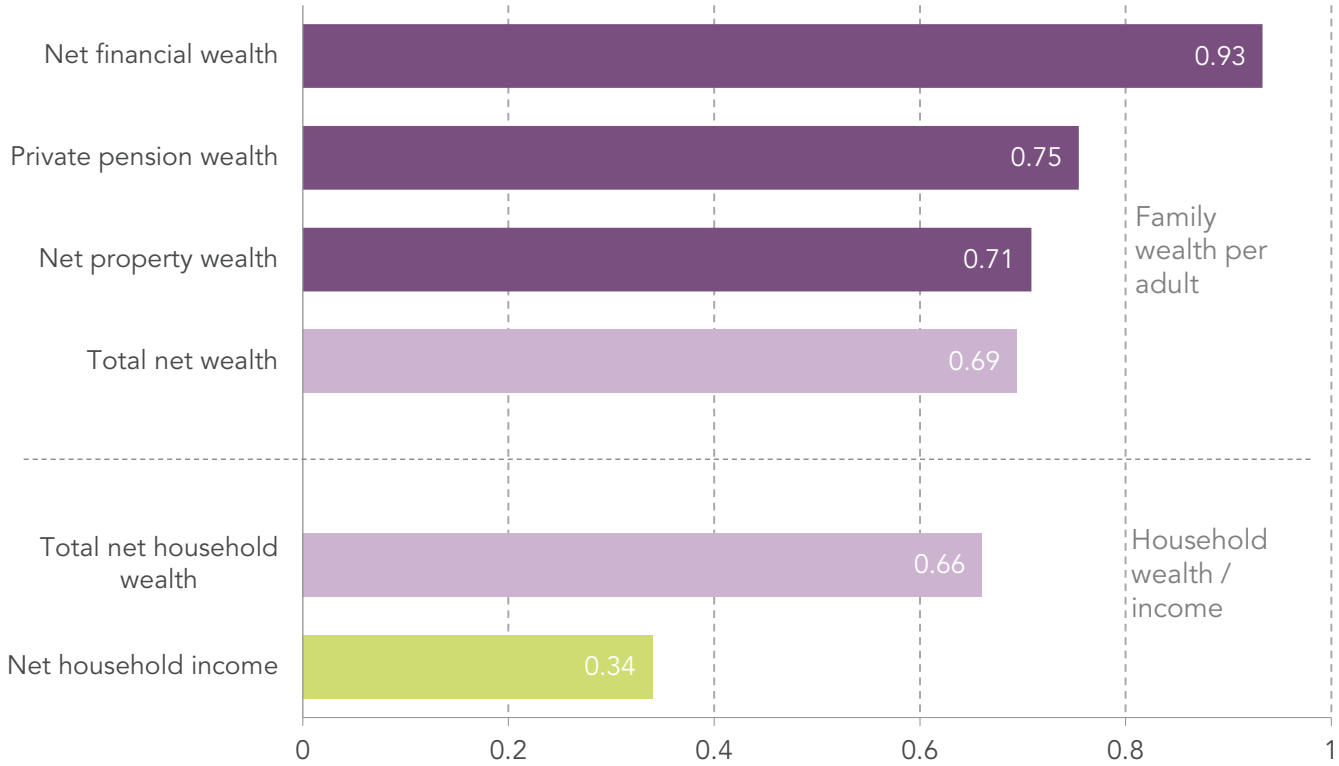
Source: RF analysis of ONS, *Wealth and Assets Survey*

19 Including the data on physical wealth in WAS would serve to reduce the Gini coefficient to 0.66 in 2012-14.

Such a concentration means that wealth is much more unequally shared than UK net income is. On a comparable per-household basis (the solid lines in Figure 8), Figure 10 shows that the 2012-14 wealth Gini coefficient of 0.66 contrasted with a net household income Gini coefficient in the same period of 0.34, in part because – as indicated by Figure 4 – wealth varies far more over the life cycle than income does.[20]

Underneath the headline total, the distribution of the different components of wealth varies drastically. As Figure 10 makes clear, net financial wealth is much more unequal than other kinds of wealth, with a Gini coefficient of 0.93. In part, this startlingly high figure arises because of the presence of negative wealth (i.e. debt): more people have negative net financial wealth than have negative net property wealth, and it is impossible to have negative private pension wealth. Nonetheless, as Section 3 will show, the distribution of financial wealth is hugely unequal.

Figure 10: **Gini coefficient for different types of wealth and for wealth compared to income: 2012-14, GB/UK**



Notes: Total net wealth excludes physical wealth. The Gini coefficient for net household income is for the UK, while wealth Gini coefficients are for Great Britain.

Source: RF analysis of ONS, *Wealth and Assets Survey*; DWP, *Households Below Average Income: An analysis of the UK income distribution: 1994/95-2015/16*, March 2017

It might surprise some that the overall Gini figure is smaller than the Gini coefficients recorded across each of the component parts, but this reflects compositional factors. For example, someone with extremely high (rather than simply above-average) net property

20 DWP, *Households Below Average Income: An analysis of the UK income distribution: 1994/95-2015/16*, March 2017

wealth is unlikely to also have extremely high pension and net financial wealth. So, while inequality on each of the individual measures may be more extreme, the combined impact of summing the different components across all adults produces an overall Gini that is a little more modest.

Since 2006-08, the trends in the inequality of these different asset types have varied. While inequality has risen in relation to both property (from 0.67 to 0.71) and financial wealth (0.91 to 0.93), the Gini coefficient for private pension wealth has actually fallen (from 0.78 to 0.75). The early phase of auto-enrolment is likely to represent the lion's share of this drop.

Falling wealth inequality has been closely associated with rising home ownership, with both trends shifting into reverse in recent years

As Hills and Bastagli[21] note, the growth in net property wealth and the extension of home ownership across the population over time have acted to reduce overall wealth inequality. Because property is more evenly distributed than overall net wealth, house price rises have in the past, and still do, act to reduce overall inequality. But so too should any increase in the share of the population entering into home ownership (assuming new property owners aren't comprised exclusively of those with extremely high levels of other wealth). By way of discerning the role of this second factor, we undertake a simple thought experiment.

We start by taking the 1995 net property and financial wealth distribution in the BHPS (in which the bottom four-fifths of adults had only 35 per cent of net property wealth) and redistributing net property wealth according to its spread across families in 2005 (when the share in the bottom four-fifths had risen to 40 per cent). In doing so, we hold 1995 aggregate property wealth *levels* constant and instead just allow their *spread* to change. Under this approach we find that the Gini coefficient for combined net property and financial wealth is reduced by 8 per cent from 0.71 to 0.65. That compares to a recorded reduction in this version of the Gini from 0.71 to 0.64, indicating that it was the broadening of the home ownership base over this period that played the overwhelming role in lowering overall wealth inequality.

However, the lower home ownership rates recorded among generation X and millennials that we discussed in Section 1 appear to have changed the picture. The specifically generational trends reflect reductions in overall family home ownership rates since the mid-2000s.[22] As Figure 11 shows, the proportion of adults in families with positive property assets has fallen markedly since 2006-08. Unsurprisingly, this decline has been concentrated among the least wealthy. Home ownership rates fell 12 per cent on average in the bottom half of the total net wealth distribution between 2006-08 and 2012-14, but only 3 per cent in the top half. For the top 10 per cent wealthiest adults they continued to increase, rising by 1 per cent.

21 J Hills & F Bastagli, 'Trends in the Distribution of Wealth in Britain', in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

22 L Judge & A Corlett, 'Only half of families own their own home – how do the other half live?', *Resolution Foundation blog*, 27 December 2016

Figure 11: **Proportion of adults in families with positive wealth, overall and for different components: 2006-08–2012-14, GB**

Notes: Total net wealth excludes physical wealth. Families are deemed to have positive wealth when their wealth in each category is at least £100.

Source: RF analysis of ONS, *Wealth and Assets Survey*

We can conduct the same thought experiment as above to understand the impact of these shifts on overall wealth inequality (this time using the more comprehensive WAS data and thereby including private pension wealth too). We take the 2006-08 total net wealth distribution (in which the bottom four-fifths of adults had 41 per cent of net property wealth) and redistribute property wealth according to its spread across families in 2012-14 (when the bottom 80 per cent's share had fallen to 37 per cent). Again holding aggregate property wealth *levels* constant, this shift pushes the Gini coefficient for total net wealth up from 0.67 to 0.69 – precisely matching the recorded change in total net wealth inequality that came about in this period.

In terms of the other components of wealth, the changing spread of net financial wealth across the total net wealth distribution also pushed the Gini up but by a much smaller amount (0.006). A more even spread of private pension wealth across the total net wealth distribution provided an exactly offsetting effect in the other direction.

We can therefore conclude that the slight increase in overall wealth inequality in the period during and since the financial crisis can primarily be accounted for by falling rates of home ownership. This represents a direct reversal of the trend from the mid-1990s to the mid-2000s, when rising home ownership was the major driver of falling overall wealth inequality, and raises questions over the extent to which housing will continue its previous inequality-reducing role in years to come.

The overall picture of inequality varies by geography and gender

Another important element of the role of property wealth is the extent to which it drives wealth differences across the country. House prices are of course much higher in some parts of Britain than others, and this plays an important role in the total net wealth differences visible in Figure 12. Both median and mean wealth are highest in the South East, with the former standing 3.8 times higher than the median wealth figure recorded among adults in the North East of England.

Figure 12: **Average family total net wealth per adult by region or country: 2012-14, GB**

CPIH-adjusted to 2017 prices

Source: RF analysis of ONS, *Wealth and Assets Survey*

Perhaps more surprising is the lowly position held by London in this picture. Median wealth per adult in the capital is the second-lowest of all of the nations and regions of Great Britain. The mean figure is more in line with expectations however (coming second only to the South East). This indicates the extent to which London is characterised by extremely high levels of wealth inequality driven by very high house prices but lower-than-average home ownership. Another factor in this gulf between the mean and median will be the (lower) age profile of the population in London.

Turning to sex, we again find big differences depending on whether we focus on mean or median wealth. Using an individual measure rather than the adults-within-families approach of the majority of this report (acknowledging that in this instance we are directly comparing the experience of adults of each gender rather than families),

we find that median total net wealth among women (£71,000) is 13 per cent lower than for men (£81,000). But switching to the mean, we find that the gap widens considerably: mean net wealth among women (£176,000) is some 29 per cent lower than among men (£248,000). Very wealthy men appear to make a major contribution to the overall difference in average wealth held across the British population.

Understanding how wealth trends will develop in the coming years means digging deeper into generation-specific experiences

Though often overlooked in living standards debates, wealth's growing importance – in terms of its size and distribution – is clear. Asset ownership brings both direct financial gain and a widening of opportunities. With that in mind it matters greatly that, while it has fallen over recent decades, wealth inequality remains deeply entrenched.

But static assessments of wealth and overall trends across Britain can only tell us so much. Patterns of wealth accumulation and decumulation are so closely connected to the life cycle that trends at the aggregate are inevitably dominated by certain parts of the age distribution. In order to better understand where wealth in Great Britain is heading, it is necessary to consider the differing experiences of successive birth cohorts. With that in mind, the next section explores wealth patterns from a generational perspective, considering what's going on both *across* cohorts and *within* them.

Section 3

Wealth patterns across and within cohorts

The last section highlighted the uneven distribution of wealth across Britain, and noted an apparent recent reversal of the long-term downward drift in this inequality. In line with the trends set out in Section 1, we might suppose that this aggregate change of direction can at least partly be explained by a shift in the nature of the wealth accumulation challenge facing younger generations. We dig into that question in this section by considering trends across and within cohorts.

On financial wealth, an intergenerational split emerges. In line with the expectation of regular cohort-on-cohort progress, older groups do tend to have greater net financial wealth than their predecessors did at the same age. But among many younger cohorts the opposite is true. A slightly rosier picture is developing on private pension wealth, with younger cohorts broadly tracking older ones. The gulf in property wealth, however, is huge and concerning. Together these trends mean that, on average, millennials and generation X – and even some of the younger baby boomer cohorts – are unable to match the wealth levels of those who went before them.

But gaps within cohorts are just as crucial to understanding wealth inequalities. The gap between the wealthiest and least wealthy members of cohorts is large and persistent, and appears to have widened for cohorts born in the 1960s, 1970s and 1980s. The direction of travel on within-cohort inequality has differed across the different elements of wealth that we focus on in this report however: while property wealth inequality has risen for instance, pension wealth inequality is flat or falling.

Wealth accumulation and decumulation is strongly linked to the life cycle

For most people wealth is built up slowly over the course of their working life, before being decumulated in retirement. Because of this trend, it is no surprise that people approaching, but not yet in, retirement tend to be the wealthiest. In Great Britain today, this description covers the majority of the baby boomers; born between 1946 and 1965 and aged roughly aged 50-70 in the final wave of our data.

Baby boomers held more than half of aggregate family total net wealth per adult (54 per cent) in 2012-14, with the single wealthiest cohort being the oldest one covered by this group (namely, those born 1946-50). As well as being younger, generation X (born 1966-80) are fewer in number than the baby boomers.[23] As such, their share of total family wealth per adult stood at just 16 per cent in the same period. The millennials (born 1981-2000) in turn accounted for still less. Their members have had far fewer years to build up wealth – especially those born in the late-1990s. Using a cut-off point of those born in 1995 (meaning they are adults in the latest data), they possessed just 2 per cent of total net wealth in 2012-14.

23 For a discussion of the demographic trends underpinning our analysis of different generations, see: D Finch, *Live long and prosper: Demographic trends and their implications for living standards*, Resolution Foundation, January 2017

At the other end of the life course, the so-called silent generation (born 1926-45) accounted for 28 per cent of total net wealth. Looking at five-year cohorts within this generation and consistent with the expectation that some wealth is decumulated in retirement, the wealth share declines rapidly – from 11 per cent of aggregate total net wealth among those born 1941-45 to 4 per cent among those born 1926-30.

These distinctions are useful in understanding how attitudes to wealth might vary across generations, but they tell us nothing about how accumulation and decumulation experiences are differing. A much more instructive approach is to examine how the wealth and assets of these different birth cohorts develop *at the same age*.

As Section 2 outlined, the period for which we have detailed data limits how far back we can go in making such comparisons. Nonetheless, by charting how different five-year and ten-year birth cohorts have fared over one or two decades, comparisons are possible. Below, we take this approach for each of the three components of family wealth we analyse, separately and in combination. Additional analysis on each of these is presented in Annex 1.

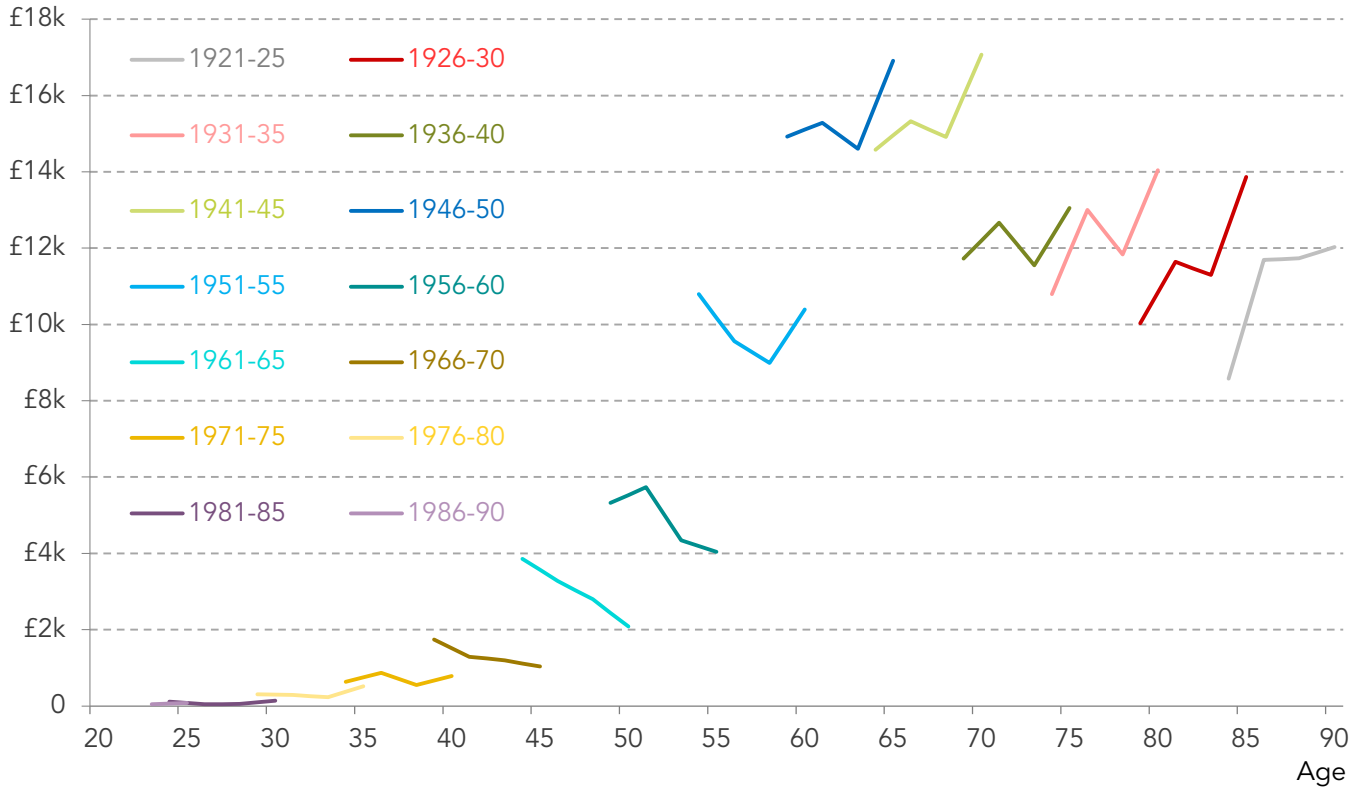
Younger cohorts are not tracking their older counterparts on financial wealth, driven not by increased debt but by lower gross wealth

As set out in Figure 3, net financial wealth – money in current accounts, savings accounts, ISAs, shares, gilts and other financial products, less any unsecured (non-mortgage) debts – is the smallest of the three components of wealth we consider in this report. It therefore plays less of a role in explaining overall wealth shifts but, as we have touched on above, it is also a particularly uneven form of wealth and so still merits attention.

Figure 13 compares median net financial wealth across 14 five-year birth cohorts over the period 2006-08 to 2012-14, with the horizontal axis indicating the median age of that cohort at each point in time.

Figure 13: **Median family net financial wealth per adult, by cohort: 2006-08–2012-14, GB**

CPIH-adjusted to 2017 prices



Source: RF analysis of ONS, *Wealth and Assets Survey*

Two trends become immediately clear. First, there is something of a three-way split in how the net financial wealth of these different cohorts has changed of late: that is, the lines are broadly flat for younger cohorts (born in the 1970s and 1980s); downward-sloping for slightly older cohorts (born in the 1950s and 1960s); and upward-sloping for the oldest cohorts (born in the 1940s or earlier).

Given that this period covers the fall-out from the financial crisis, some caution is required in interpreting this apparent split, but the division is nonetheless marked. Increasing median net wealth among older groups is particularly worthy of mention, given that it might run contrary to the expectation that those cohorts that have reached retirement will be spending down their financial assets. However, the role of morbidity and divorce in changing the composition of families and cohorts as they age complicates these assumptions, with wealthier individuals more likely to live longer for example. This is something that our longitudinal analysis in Section 4 unpicks.

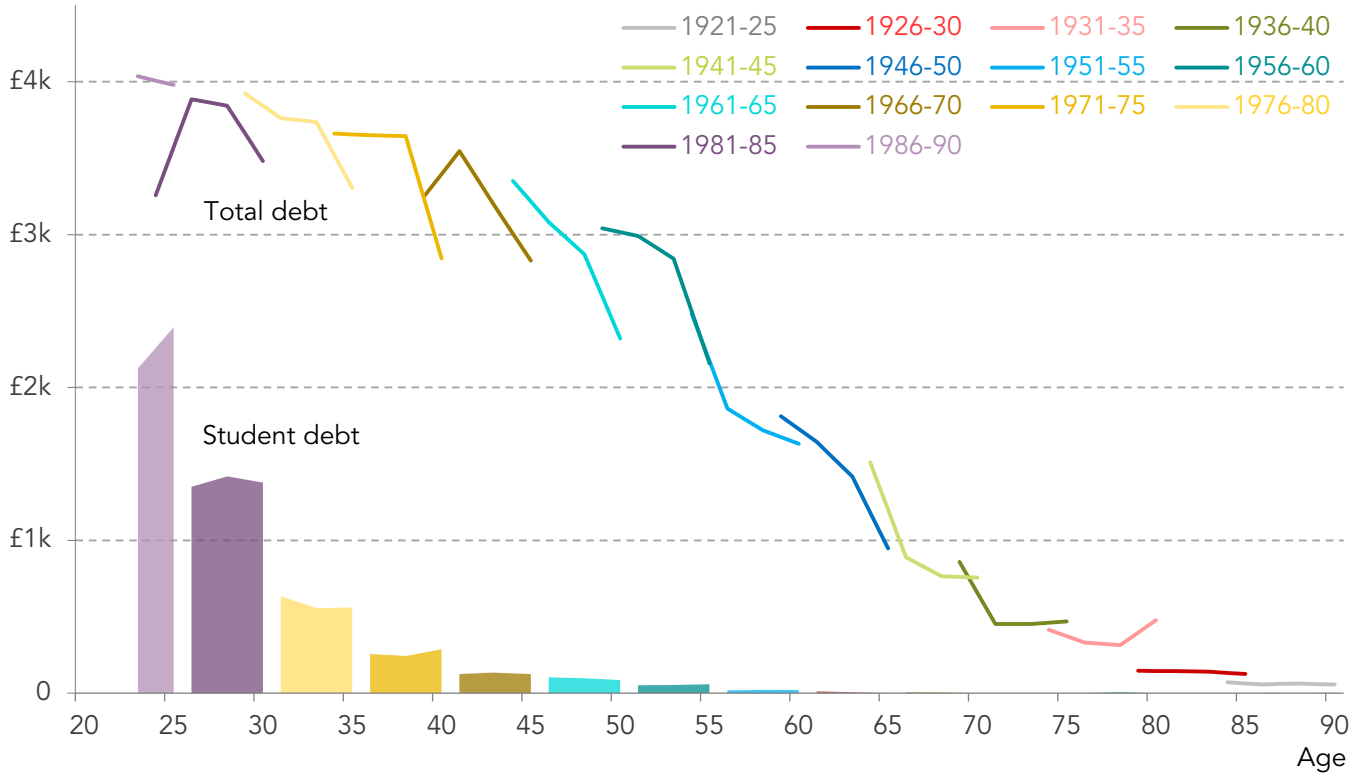
The second trend evident from Figure 13 centres on the points of overlap between the cohorts. Given expectations that each generation should do better than the last, we might suppose that each cohort would record higher median net wealth than the one immediately before it for any given age. Yet such a pattern is only visible among the older cohorts. For instance, at age 80 the 1931-35 birth cohort had 30 per more net financial wealth than the 1926-30 cohort did after adjusting for inflation. A similar pattern holds across subsequent cohorts, until we reach those born 1951-55. After this tipping point,

each successive cohort has lower net financial wealth than predecessors at the same age. For example, at age 55 typical net financial wealth within the 1956-60 cohort was just 40 per cent of what those born five years earlier held at the same age.

This pattern of younger cohorts lagging their predecessors could be driven either by reductions in gross financial wealth or increases in financial debt – student debt in particular might be expected to feature. Yet Figure 14 indicates that increased debt does *not* appear to be the primary driver, with younger cohorts in general having marginally less debt on average than the cohort before them at the same age (we prefer to measure median wealth or debt, but here and in other instances where lots of families have nothing, the mean is more illuminating). This finding is supported by evidence on a relative lack of movement in the share of families who have positive net financial wealth, shown in Figure 39 in Annex 1: 57 per cent of those born in 1981-85 have positive net financial wealth at age 30, compared to 58 per cent of those born five years earlier.

Figure 14: **Mean family debt per adult, by cohort: 2006-08–2012-14, GB**

CPIH-adjusted to 2017 prices



Notes: Student debt includes student-related loans from both banks and the Student Loans Company. Data on student debt is only available on a consistent basis in waves 2-4 of the Wealth and Assets Survey.

Source: RF analysis of ONS, *Wealth and Assets Survey*

We separate out student debt to help understand the impact it is having, and it appears levels *have* increased for younger cohorts (although we can't be sure given limited data prevents us from comparing them at exactly the same age). For example, average student debt at age 25 amounted to £2,400 among those born 1986-90, compared with £1,400 for those born 1981-85 at age 26. However, the magnitude of average student debt remains modest relative to the overall net financial wealth figures set out in Figure 13. And it remains the case that overall financial debt appears to have fallen across cohorts.

This narrative of falling debt may sound at odds with recent fears around the rise of unsecured borrowing, but it should be remembered that it relates to a time (our data only runs to the first half of 2014) when household deleveraging was more common. Future versions of this chart, which include those increases in consumer credit that occurred over the course of 2016, may well paint a different picture of how families are taking on and managing debt. Similarly, it will be a little while before significant numbers of those who entered university after tuition fees had risen to a maximum of £9,000 per year will arrive in these figures, which will change the profile described in Figure 14.

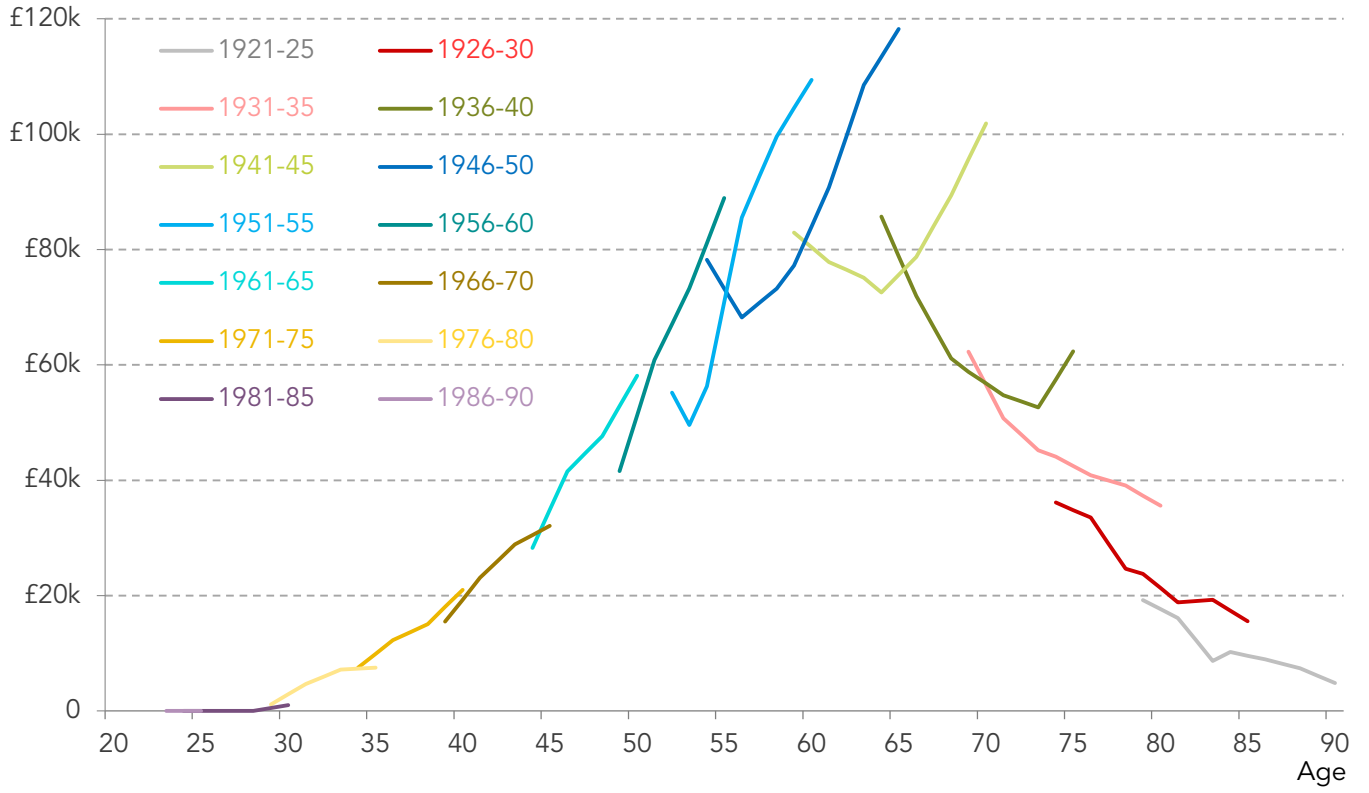
It remains the case for now, however, that rising debt does not appear to have been a factor in explaining the trends depicted in Figure 13. The implication is that lower gross financial wealth accumulation – perhaps driven by large falls in real pay for younger workers after the crisis and weak subsequent pay growth, as illustrated in Figure 1 in Section 1 – is likely to have played the dominant role in explaining falling net financial wealth across cohorts.

Taken at face value, trends in private pension wealth seem more encouraging, but there are big question marks over future trajectories

On our second aspect of wealth – private pension wealth – Figure 9 sets out median wealth for the same 14 birth cohorts over the course of 2002-03 to 2012-14. For those in later life, unlike with financial wealth and unsurprisingly given how pensions operate, we see a much clearer pattern of decumulation. Those born in the 1940s appear to be bucking that trend so far, with sharp increases even as they enter their seventh decade. Compositional factors relating to morbidity and divorce will again affect this picture, as will the way in which DB pensions are valued. Section 4 discusses these factors in more detail, but for now it is worth noting that reassessments of longevity expectations and shifts in interest rates produced sizeable increases in DB pension valuations precisely over the period shown here.

Figure 15: **Median family private pension wealth per adult, by cohort: 2002-03–2012-14, GB**

CPIH-adjusted to 2017 prices



Notes: Cohort trends in private pension wealth in England for cohorts aged 50 and over in the English Longitudinal Study of Ageing are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. It should be noted that the methodology for calculating private pension wealth and the geography covered are somewhat different in these two studies; however cohort estimates are relatively consistent during the period where the data overlap.

Source: RF analysis of UCL et al., *English Longitudinal Study of Ageing*; ONS, *Wealth and Assets Survey*

The fortunes of younger cohorts appear more promising at first look. Cohort-on-cohort progression in private pension wealth is evident all the way through to at least the 1961-65 group. Thereafter, median private pension wealth looks to be broadly following the pattern among older cohorts at the same age. Yet this apparent 'tracking' cannot be taken as a sign that all is well on this front for younger groups. As is clear from Figure 9, private pension wealth among the 1940s and 1950s cohorts has surged dramatically in recent years, and there are big questions over the likelihood of younger cohorts following a similar pattern as they age.

First and foremost, younger cohorts are less well-placed to benefit from the DB revaluations that underpin the trajectories for older groups because many fewer of them are members of such schemes. Fewer than one-in-ten private sector employees born in the early 1980s were active members of a DB scheme at age 30, compared with nearly four in ten of those born in the 1960s when they were that age.[24] While some young people are members of such schemes, DB pensions are unlikely to be as important a share of millennial wealth in future as they are for baby boomers (as illustrated by Figure 43 in Annex 1).

24 J Cribb, A Hood & R Joyce, *The Economic Circumstances of Different Generations: The Latest* Picture, Institute for Fiscal Studies, September 2016

Second, even among those in younger cohorts who *are* members of a DB sheme there is no guarantee that the recent period of rapid revaluation will be repeated. At the same time, the cost of being a member of DB schemes has also risen. Contribution rates have risen in response to concerns over how firms can afford these schemes, meaning younger cohorts will pay more to get these pensions: between 2011 and 2015, the average employee contribution rate amounted to 5 per cent of salaries.[25] And it's worth noting that future revaluations may act to reduce the value of defined benefit entitlements: although longevity is unlikely to fall in the long term, interest rates could well increase in future.

A third factor to consider when studying Figure 15 is the extent to which simply 'tracking' older cohorts' private pension wealth trajectories will provide for an equivalent standard of living in retirement for today's younger groups. If younger generations are still expected to earn more and have higher incomes than those that went before over their lifetime, their pension pots will have to exceed those of their older counterparts in order to deliver constant adequacy (usually measured relative to pre-retirement earnings). The issue of pensions adequacy is one the Intergenerational Commission will explore in greater depth in a forthcoming report.

What does all this suggest for younger cohorts and their future private pension wealth? The overall picture certainly looks slightly rosier than on financial wealth, with the 1970s and 1980s cohorts accruing private pension wealth at a similar pace to older cohorts so far. In addition, auto-enrolment – the rollout of which has mostly occurred after the period covered by our analysis – should act as a tailwind in coming years by raising pension coverage and lifting contribution rates a little. But, given doubts about the accessibility of much more generous DB schemes, the future shape of pension saving among younger groups is far from clear. It's fair to say, though, that it is unlikely to include big surges in value of the kind recently experienced by older cohorts.

Property booms in the 1990s and 2000s boosted baby boomers in particular

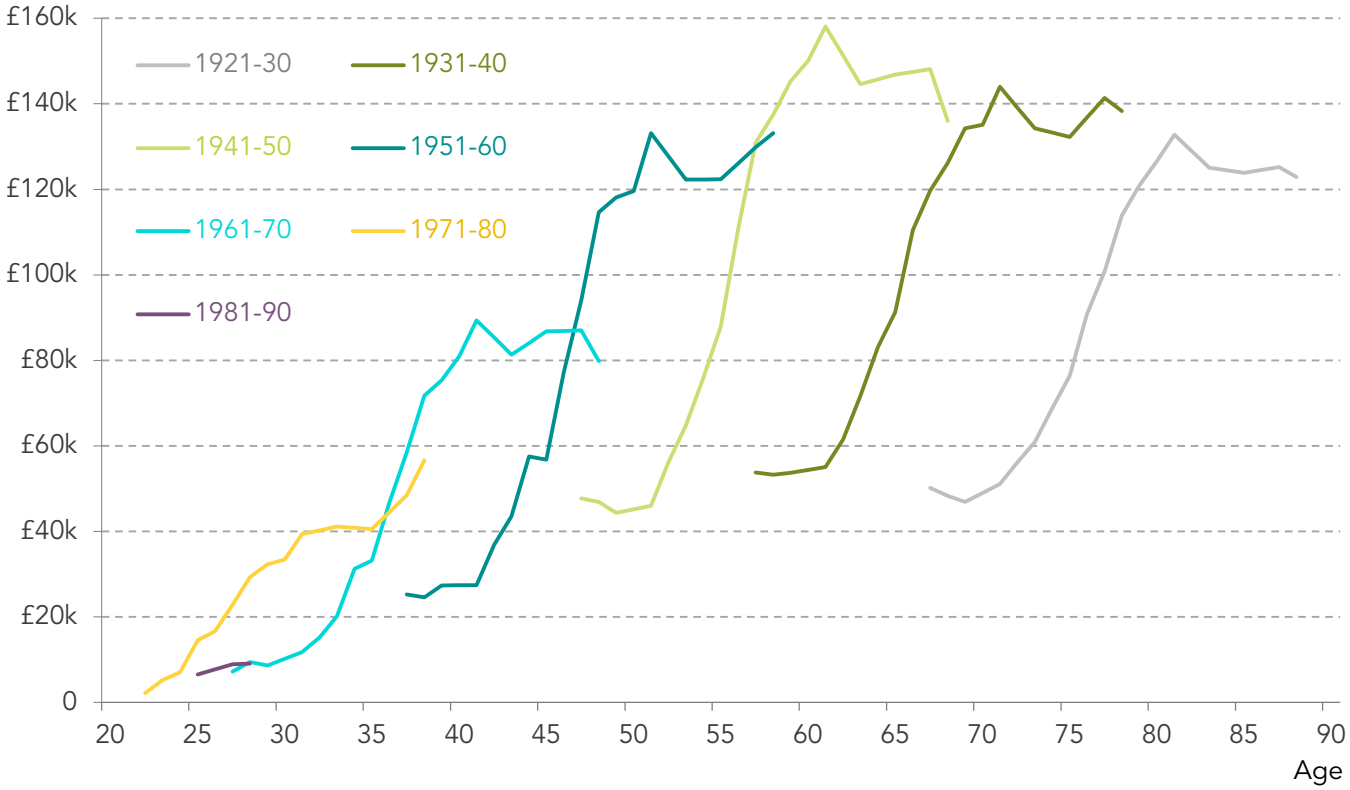
The third component we examine is property wealth. Again we focus on net values; that is, the value of all properties minus any outstanding mortgage debt. Figure 16 presents a similar approach to that taken above for financial and pension wealth – this time covering seven ten-year birth cohorts over the period 1993 to 2015 (and using the mean in this instance to separate trends for younger cohorts with median wealth of zero). The longer timeframe lets us establish more overlaps between the cohorts and highlights some very large cohort-on-cohort gains at the same age.

25 Source: ONS, *Occupational Pension Scheme Survey*

For example, at age 48 the 1941-50 cohort had average net property wealth of just under £47,000; those born just 10 years later more than doubled that value, recording mean net property wealth of £115,000 at the same age. Gains of this scale among older cohorts primarily reflected sharply rising house prices, a topic picked up on in Section 4.

Figure 16: **Mean family net property wealth per adult, by cohort: 1993-2015, GB**

CPIH-adjusted to 2017 prices



Notes: Cohort trends in net property wealth in the British Household Panel Survey / Understanding Society are used to extend trends observed in the Wealth and Assets Survey backwards before 2006 and after 2014. Cohort trends are relatively consistent during the period where the data overlap.

Source: RF analysis of ISER, *British Household Panel Survey / Understanding Society*; ONS, *Wealth and Assets Survey*

The impact of house price changes is also evident in the slight reductions in net property wealth recorded across most of the cohorts as we move towards the end of the time period. With house prices falling in many parts of Britain after the financial crisis – before recovering at different speeds in different parts of the country – the wealth associated with being a home owner fell back slightly. As a result, by the end of the period those born in the 1950s recorded net property wealth that fell short of those coming before them.

More interesting, though, is the shift we observe among those born in the 1960s and later. At age 48, those born 1961-70 had mean net property wealth some 30 per cent lower than what those born in the 1950s had at the same age. The 1970s cohort also recorded lower average net property wealth than those ten years before them from the age of 36 onwards, while mean net property wealth among the 1980s cohort was lower again at all ages.

Among these later cohorts we appear to be seeing two things. First, home owners in these groups were less likely to have benefitted from the full duration of the house price booms of the 1990s and 2000s; some will only ever have owned during a period of flat or falling prices (our data largely misses the most recent phase of house price growth). Secondly, as we saw in Figure 2 the proportion of members in these younger cohorts entering into home ownership has fallen – in part precisely because the house price rises of the 1990s and 2000s pushed ownership out of reach – pulling down the average wealth value across the group.

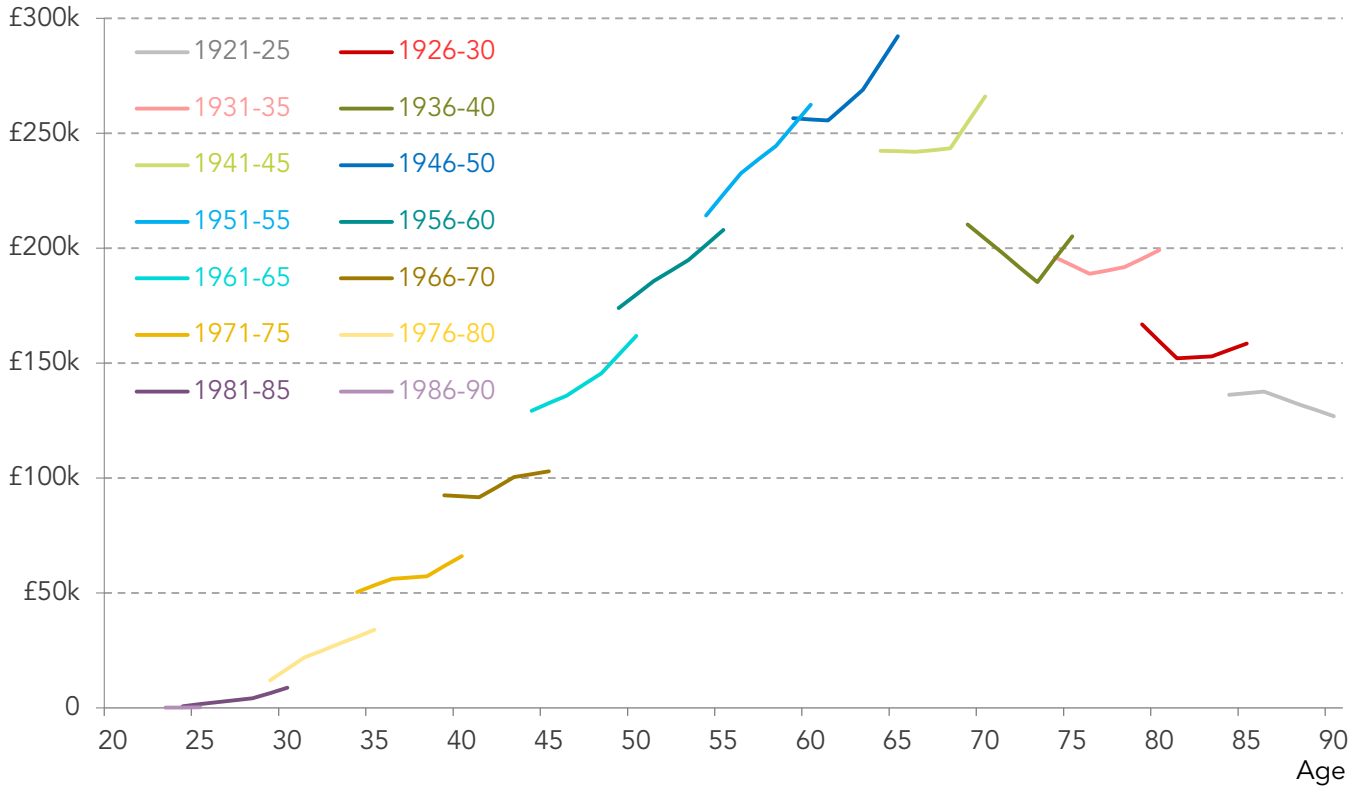
Importantly, this second point reduces the average gains that younger cohorts can expect to achieve from any future house price rises. As we discussed in Section 2, declining home ownership means that house price rises are likely to be less good at lowering overall wealth inequality over the coming years.

Overall, younger cohorts are not accumulating wealth at the same pace as earlier cohorts

Having discussed the different kinds of wealth and their growth for different cohorts, we now combine net financial, private pension and net property wealth by looking at total net wealth. Figure 17 illustrates the striking finding that younger cohorts are significantly less wealthy at the same age than their older counterparts were.

Figure 17: **Median family total net wealth per adult, by cohort: 2006-08–2012-14, GB**

CPIH-adjusted to 2017 prices



Notes: Excludes physical wealth.

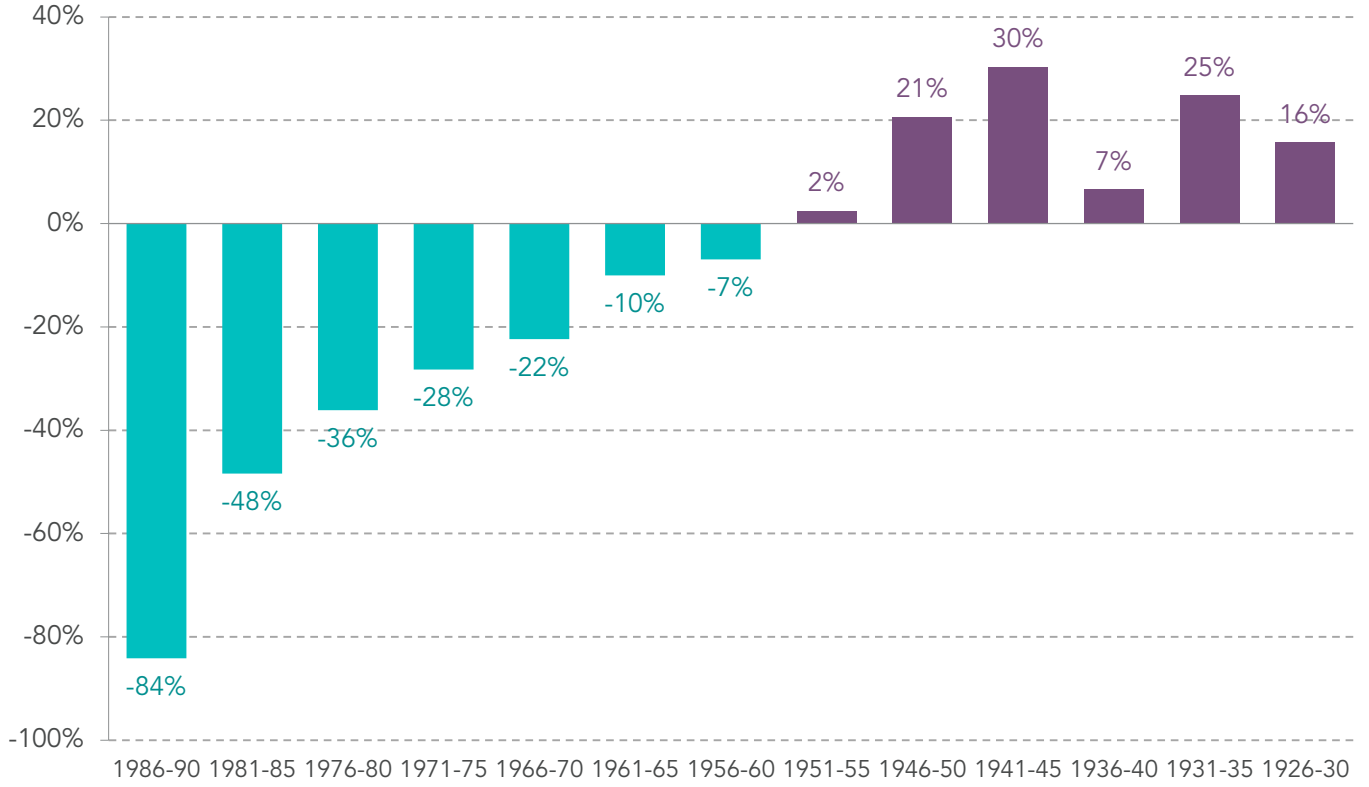
Source: RF analysis of ONS, *Wealth and Assets Survey*

Because of the different data sources and their varying components, we first present this analysis based solely on WAS and therefore covering just 2006-08 to 2012-14. Even over this shorter period it is evident that the expectation that every generation will do better than the one before it does not appear to be holding up. The crossover happens for those born in the second half of the 1950s and gets bigger with each subsequent group. For example, the 1976-80 cohort records 36 per cent less wealth at age 35 than the 1971-75 cohort.

Figure 18 details the 'tipping point' at which cohorts begin to fall behind those who came before in more detail. It shows that the older cohorts all enjoy a wealth premium over the cohort that went before them, but that this advantage was small for the 1951-55 cohort and reversed thereafter. Contrary to the perception that it is only millennial cohorts that have fallen behind, Figure 18 highlights that all of generation X and even the younger baby boomers have failed to accumulate as much wealth as those born five years before them had at the same age.

Figure 18: **Median family total net wealth per adult in 2012-14 as a proportion of the preceding cohort's wealth at the same age: 2006-08–2012-14, GB**

Younger cohort in 2012-14 compared to preceding cohort at that age five years previously, CPIH-adjusted



Notes: Excludes physical wealth.

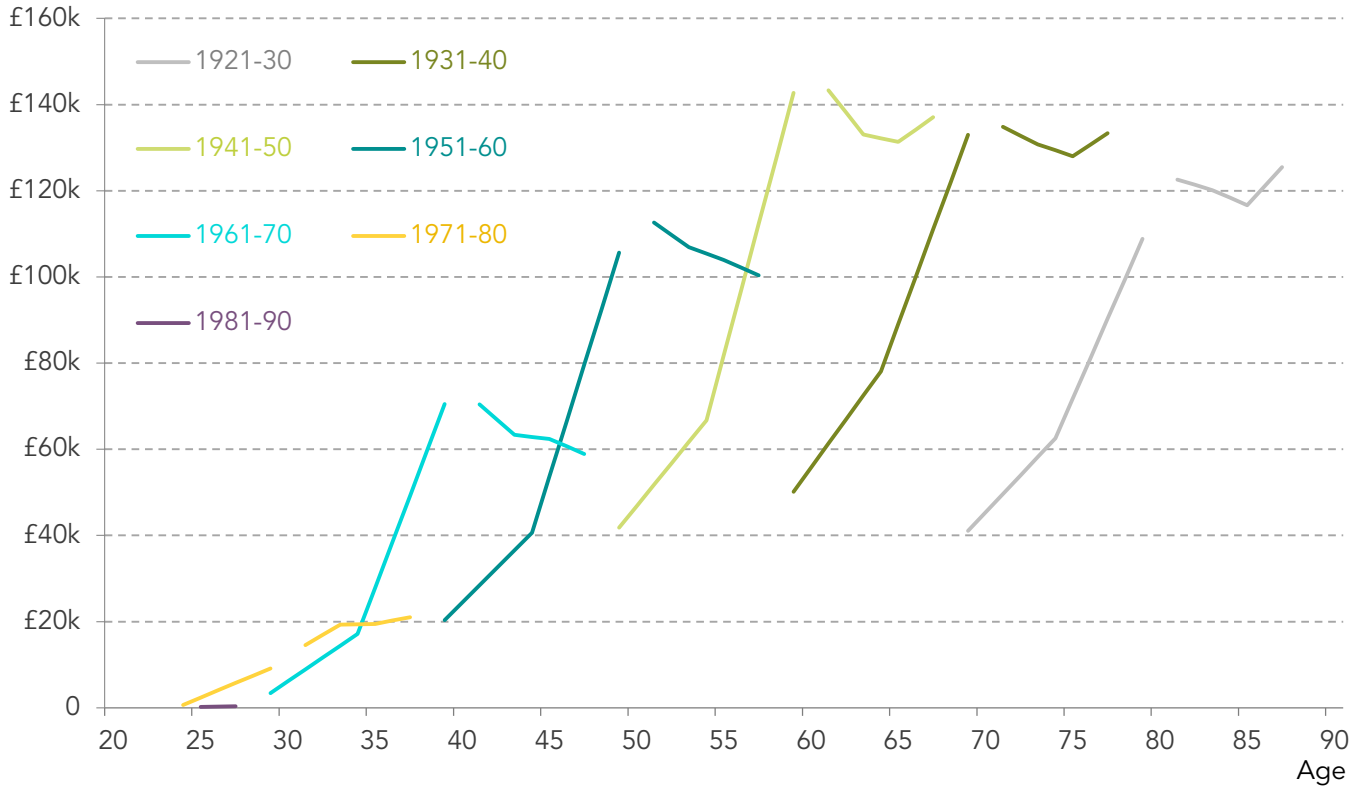
Source: RF analysis of ONS, *Wealth and Assets Survey*

The fact that the WAS data covers the period immediately before and after the financial crisis should give us some pause when making judgements about how persistent these gaps and trends will be; notwithstanding the failure of successive governments to arrest the slide in home ownership, a return to strong earnings growth and an increase in pension contribution rates are both possible.

For a longer-term perspective that incorporates earlier data, we turn to a more limited measure which excludes pensions. Deciphering the trends in Figure 19 becomes slightly more complex, dominated as they are by rapid house price rises, but the same pattern emerges. That is, we again see younger cohorts trailing older cohorts at the same age.

Figure 19: **Median family net property and financial wealth per adult, by cohort: 1995–2012-14, GB**

CPIH-adjusted to 2017 prices



Notes: Trends in total net property and net financial wealth from BHPS and WAS are presented alongside one another (with a break in the series between 2005 and 2006-08), but it should be noted that these datasets capture slightly different components of wealth, particularly in respect of financial assets.

Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *Wealth and Assets Survey*

Intergenerational gaps are not uniform across the country

This overall trend described above has not played out identically across Britain. Figure 20 (which uses the mean, in contrast to trends at the median shown in Figure 18) shows that, regardless of geography, the oldest millennials (born 1981-85) have less wealth

than the youngest members of generation X (born 1976-80) had at age 30. But the size of this gap varies widely, with the younger cohort 48 per cent worse off than the preceding one at the same age in Wales, compared to only 9 per cent in Yorkshire and the Humber.

Figure 20: **Mean family total net wealth per adult in 2012-14 as a proportion of the preceding cohort's wealth at the same age, by region/country: 2006-08–2012-14, GB**

Younger cohort in 2012-14 compared to preceding cohort at that age five years previously, CPIH-adjusted

Notes: Excludes physical wealth.

Source: RF analysis of ONS, *Wealth and Assets Survey*

Possibly more interesting is the fact that the 'tipping point' at which younger cohorts' total net wealth no longer exceeded that of the cohort before them appears to have arrived at different times in different parts of the country. As noted in relation to Figure 18, across the country as a whole it was the 1956-60 cohort that first recorded a cohort-on-cohort decline at the median – Figure 20 shows that across Great Britain they still slightly outperformed at the mean. But we see a marked backward step in the East, South East, and in Yorkshire and the Humber, and continued strong cohort-on-cohort improvements in London, the North East and the South West.

The suggestion is that the fraying of generational progress on wealth has happened at different speeds across Britain, meaning intergenerational concerns are likely to be more apparent in some parts than others.

Inequalities within cohorts are arguably just as concerning as those across cohorts

Although these trends across cohorts are hugely significant – and worrying – it is also worth considering how different groups *within* each of these cohorts are faring. It's little consolation to someone with few assets to know that their cohort as a whole is considered 'wealthy'. Likewise, given that wealth opens up opportunities to its holders, the extent to which within-cohort gaps have altered over time is an important consideration for those interested in future living standards and inequality.

In the analysis presented above, we alternated between median and mean measures, determined primarily by the availability and accuracy of the data. But only considering these measures overlooks the potential for vastly different outcomes for people within the same cohort. Differences between the so-called 'haves' and 'have-nots' of any one cohort have important consequences for our understanding of the analysis set out in this section so far but also when considering policy responses.[26]

As well as the absolute levels of wealth at different points within the distribution of a cohort, questions around the trends matter too. Are, for example, the rapid average gains in net property wealth repeated for those with less wealth within a cohort or do they move in a different way? The rest of this section explores these issues, again taking each component part of wealth individually before assessing the overall picture.

Financial wealth inequality has widened across cohorts, with significant a number of families recording zero or negative net financial wealth

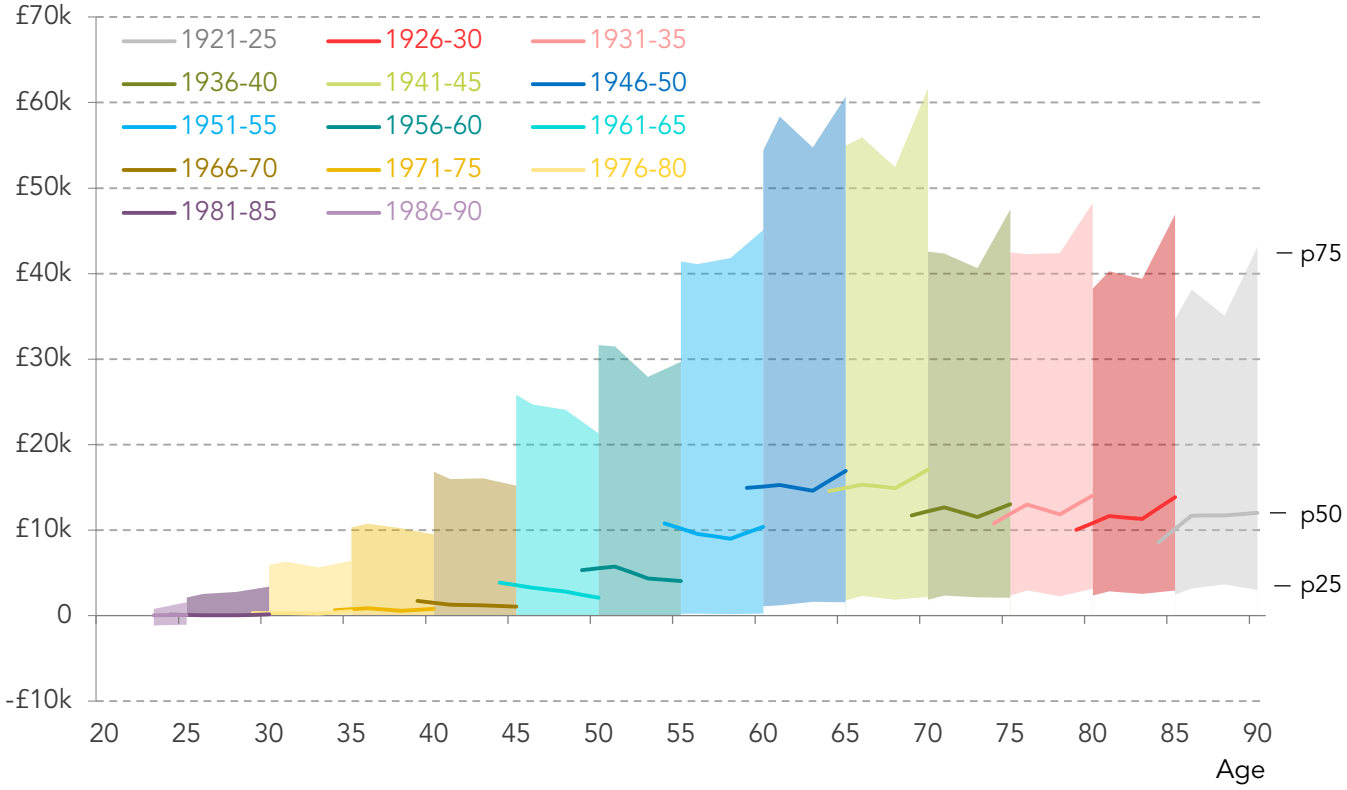
Rather than consider every point across the distribution, we present those at the 25th percentile (those wealthier than 25 per cent of families), the median (those wealthier than half of families) and the 75th percentile (those wealthier than 75 per cent of families). In Figure 21, we show the spread between these different percentile points across our 14 different five-year birth cohorts over the period 2006-08 to 2012-14; with the lines depicting the median family net financial wealth per adult,[27] the bottom of the shaded area representing the 25th percentile and the top of the shaded area showing the wealth of those at the 75th percentile.

26 An important reminder before exploring the separate components of wealth is that families at the lower quartile, that is, those who are wealthier than 25 per cent of their cohort but less wealthy than the other 75 per cent, for financial wealth are not necessarily the same families as those who are at the 25th percentile for pension or property wealth. For example, a family could have large amounts of financial and property wealth but little pension wealth.

27 Effectively repeating the presentation provided in Figure 13.

Figure 21: **Percentiles of family net financial wealth per adult, by cohort: 2006-08–2012-14, GB**

25th, 50th (median) and 75th percentiles, CPIH-adjusted to 2017 prices



Source: RF analysis of ONS, *Wealth and Assets Survey*

The chart draws our attention to two aspects of intra-cohort inequality in particular. First, the fact that those at the 25th percentile have zero or negative net wealth until we reach the point at which the 1946-50 cohort turns 60 is striking. A lack of savings has long been flagged as a concern, making dealing with unexpected expenses and changes in circumstance difficult for many families. Although it may be the case that people with little or no financial assets are building up their property or private pension wealth, for those with absolutely no net short-term savings the proposition remains difficult.

The second aspect worthy of note in Figure 21 is that the general trend we identified for median net financial wealth in Figure 13 – that younger cohorts have not kept pace with older ones at the same age – holds across the distribution. Indeed, in absolute terms the cohort-on-cohort decline appears even more marked at the 75th percentile. Overall, in terms of within-cohort changes over recent years, changes at different points in the distribution have moved broadly in tandem.

However, comparing different cohorts at the same age does show signs of widening intra-cohort inequality, with Gini coefficients rising for most cohorts, even including baby boomers. (Annex 1 provides Gini coefficients across cohorts for net financial, private pension and net property wealth.) The absolute gap between the 25th and 75th percentiles rises to as wide as £60,000 among the 1941-50 cohort – that is, among those

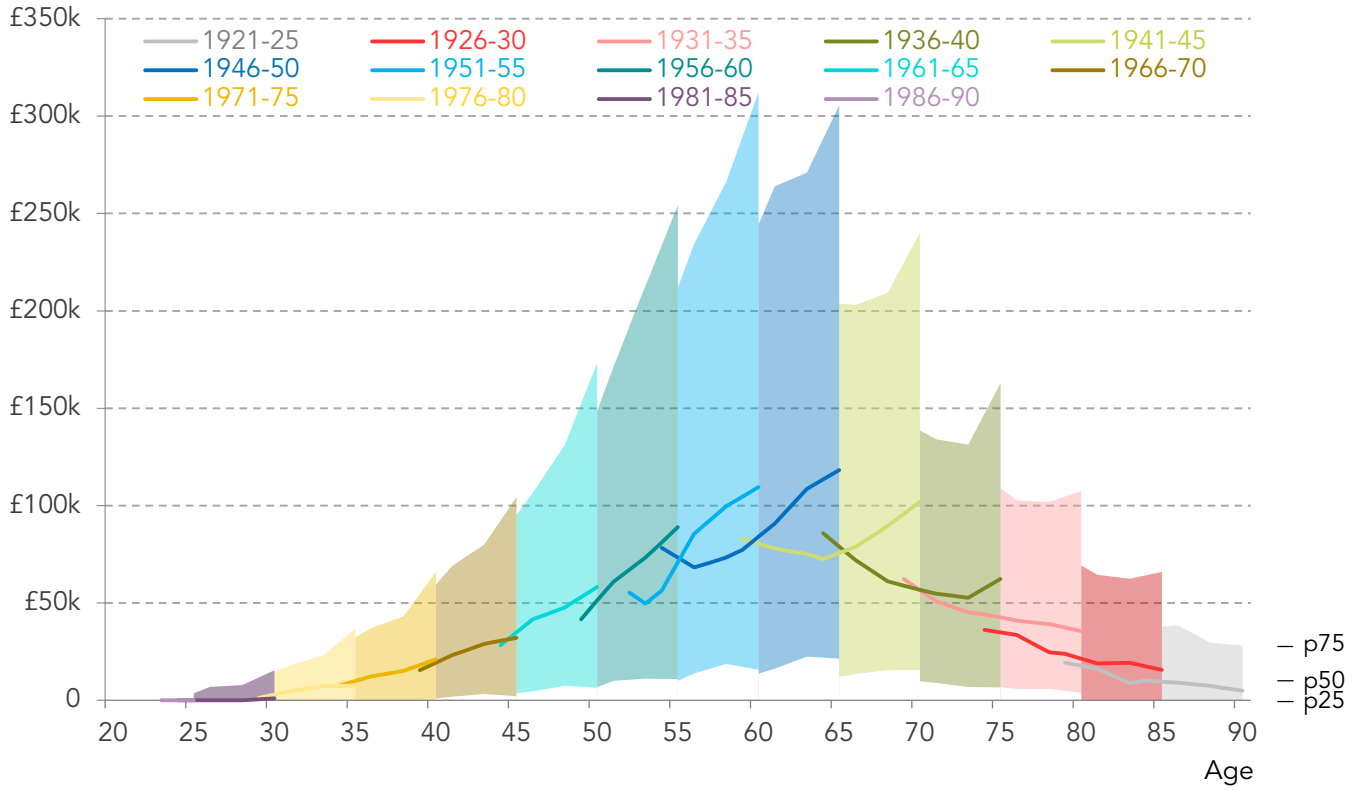
in their 60s over the period considered. This acts as a welcome reminder that treating baby boomers as a homogeneous group who are all wealthy is not only incorrect but can also point to flawed conclusions when it comes to policy responses.

Pension wealth gaps are enormous within cohorts and have widened rapidly

In absolute terms, the inequalities in net financial wealth are dwarfed by those relating to pensions. But, as Figure 22 shows, families at the 25th percentile of the private pension wealth distribution at least have *some* assets in most instances (in all cohorts before 1970), unlike the position of those at the 25th percentile of the net financial wealth distribution.

Figure 22: **Percentiles of family private pension wealth per adult, by cohort: 2002-03–2012-14, GB**

25th, 50th (median) and 75th percentiles, CPIH-adjusted to 2017 prices



Notes: Cohort trends in private pension wealth in England for cohorts aged 50 and over in the English Longitudinal Study of Ageing are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. It should be noted that the methodology for calculating private pension wealth and the geography covered are somewhat different in these two studies; however cohort estimates are relatively consistent during the period where the data overlap.

Source: RF analysis of UCL et al., *English Longitudinal Study of Ageing;* ONS, *Wealth and Assets Survey*

What's also clear from the chart is that private pension wealth has improved cohort-on-cohort not just for those at the median and at the 75th percentile, but also for those at the 25th percentile, across most of the cohorts shown. For example, the private pension wealth of the 25th percentile of the 1961-65 cohort grew from £3,500 to £6,400 between

2002 and 2012-14. However, for many of these 'late' baby boomers with retirement on the horizon, pots of this size are unlikely to greatly enhance their living standards in the coming years.

From a cross-cohort perspective, the conclusions we drew from Figure 15 in relation to median private pension wealth appears to hold across the bottom half of the distribution: namely that younger cohorts are broadly 'tracking' the experiences of those who came before them at the same age. That being the case, the same concerns we raised above in relation to the likelihood of younger groups continuing to follow previous trajectories apply here.

The position looks somewhat different towards the top of the private pension wealth distribution though. Here we observe both large increases over the period from 2002-03 to 2012-14 within given cohorts (for example, wealth at the 75th percentile of the 1956-60 cohort rose by more than £100,000 after adjusting for inflation, to £254,000) and marked cohort-on-cohort improvements even among some of the youngest groups in our study. Indeed, it is only for 1986-90 birth cohort that private pension wealth at the 75th percentile fails to exceed the wealth of the previous cohort at the same age. Despite these gains towards the top however, comparing the Gini coefficient for different cohorts at the same age shows a less clear-cut trend. We are unable to conclude that private pension wealth is any more equally distributed at the same age among a given cohort than the one that preceded it.

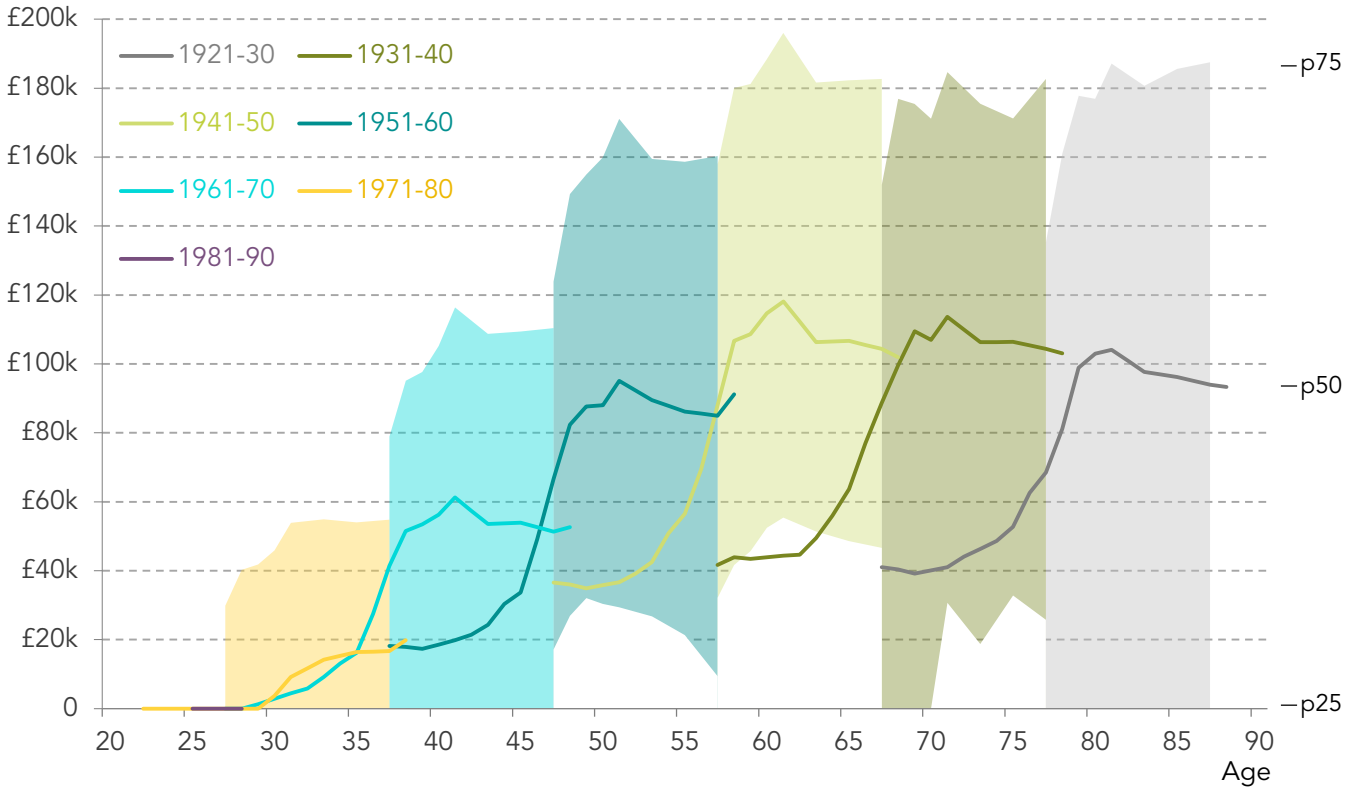
A final point to note on private pension wealth for those at the 75th percentile is the lack of decumulation at older ages compared to families at either the median or 25th percentile of the distribution. We don't believe this to be evidence of wealthier pensioners continuing to build up pension pots. Rather, it appears to be driven by compositional changes (due to morbidity rates) and the way DB pensions and pensions in payment are valued in these data. This is an issue we return to in the following section.

Property wealth is more evenly distributed, but post-crisis falls in wealth have been most marked towards the bottom of the distribution

As discussed in Section 2, one of the consequences of rising home ownership in the 1990s and 2000s was narrowing wealth inequality overall. It is therefore unsurprising that Figure 23 shows at least some net property wealth at the 25th percentile for the cohorts old enough to be best placed to benefit from the expansion of home ownership in this period: primarily baby boomers born earlier than 1960. In contrast, the relative difficulty members of generation X and millennials have had accessing home ownership is illustrated by the fact that the 25th percentile of the net property wealth distribution sits at zero across those cohorts born after 1960.

Figure 23: **Percentiles of family net property wealth per adult, by cohort: 1993-2015, GB**

25th, 50th (median) and 75th percentiles, CPIH-adjusted to 2017 prices



Notes: Cohort trends in net property wealth in the British Household Panel Survey / Understanding Society are used to extend trends observed in the Wealth and Assets Survey backwards before 2006 and after 2014. Cohort trends are relatively consistent during the period where the data overlap.

Source: RF analysis of ISER, *British Household Panel Survey / Understanding Society*; ONS, *Wealth and Assets Survey*

The property wealth experience of families in the middle of the distribution and those at the 75th percentile has been roughly similar over the period shown (1993 to 2015): namely, sharp initial growth in net property wealth before a plateau associated with the financial crisis. But, worryingly, the trend for those in older cohorts who *do* record some net property wealth at the 25th percentile looks somewhat different. In both the 1950s and 1940s birth cohorts, net property wealth at the 25th percentile declines over the second half of the period – representing a far larger proportional hit to their smaller net property wealth than is recorded higher up the distribution. For example, within the 1951-60 cohort, those at the 25th percentile had accumulated property wealth of £32,000 by age 50; eight years later, this figure had fallen to a little over £9,000.

It should be noted that for older cohorts, declines in net property wealth at the 25th percentile may be linked to separations within families. In addition, it's worth noting that given the huge variation in house prices across Britain, trends at the top and bottom will be closely linked to changing house prices in particular parts of the country. For instance, house prices in both Wales and the North East of England are both lower than the national average and fell further in the years following the financial crisis than elsewhere. In contrast, property prices in London are above the national average and proved relatively resilient over the course of the financial crisis, way surpassing

pre-crisis levels in recent years. These contrasting trends are likely to form a large part of the explanation for differences at the 25th and 75th percentiles of cohorts' net property wealth distribution.

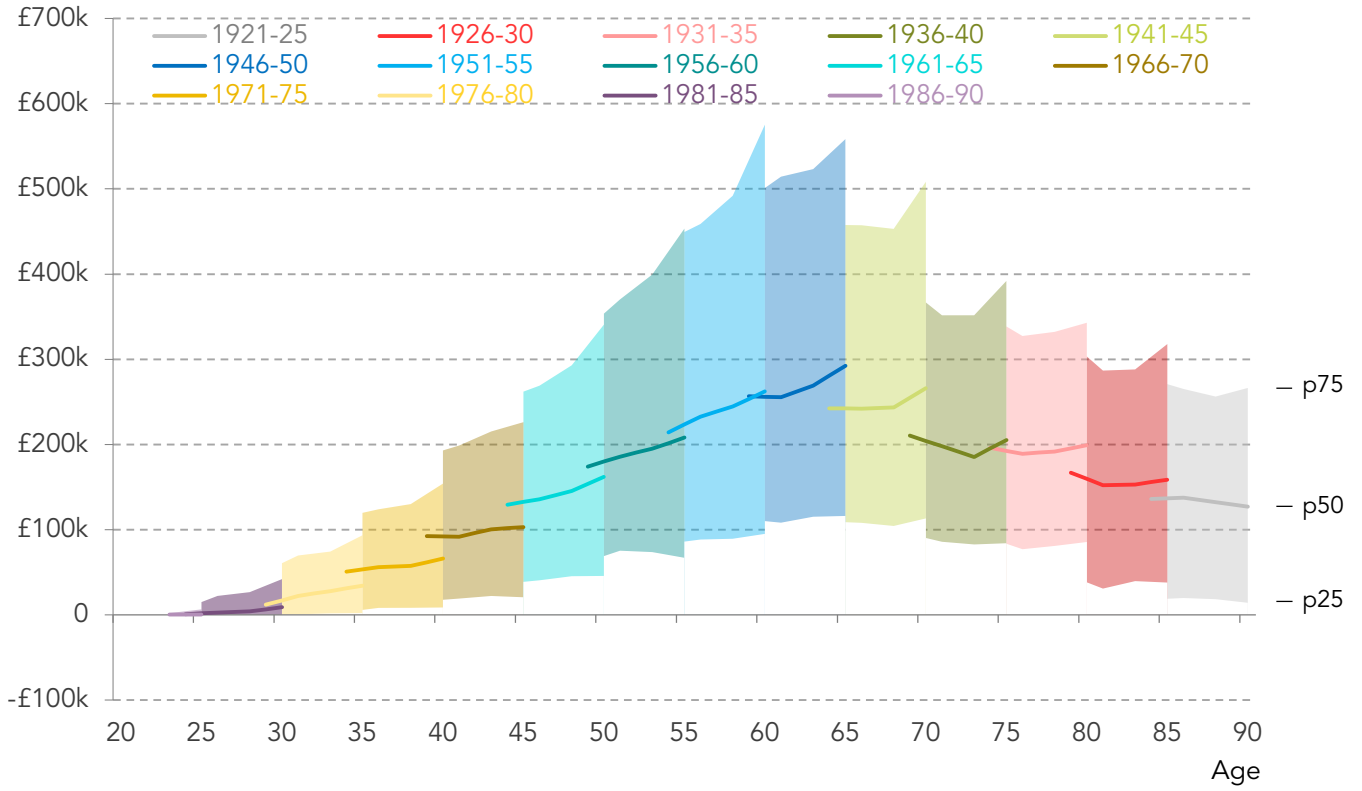
Reflecting these trends, Gini coefficients for net property wealth have risen for some cohorts. Within-cohort net property wealth inequality among those born in the 1940s and 1950s fell relative to those born ten years before; but for those born in the 1960s, 1970s and 1980s that trend has been reversed, with falling home ownership driving rising within-cohort inequality in recent years.

Inequalities within cohorts remain large, with evidence of growing gaps for millennials and generation X

Figure 24 brings each of these component elements of wealth together, allowing us to test a number of hypotheses. First, is there evidence that within-cohort inequalities are rising? Restricting our coverage to the period covered by WAS (2006-08–2012-14) there *is* evidence that successive cohorts are more unequal than the ones that went before them. On average, the Gini coefficient within cohorts in the 1960s, 1970s and 1980s is 5.4 per cent higher than the cohort born five years before them at the same age (these within-cohort Gini coefficients are shown in Figure 42 in Annex 1).

Figure 24: **Percentiles of family total net wealth per adult, by cohort: 2006-08–2012-14, GB**

25th, 50th (median) and 75th percentiles, CPIH-adjusted to 2017 prices



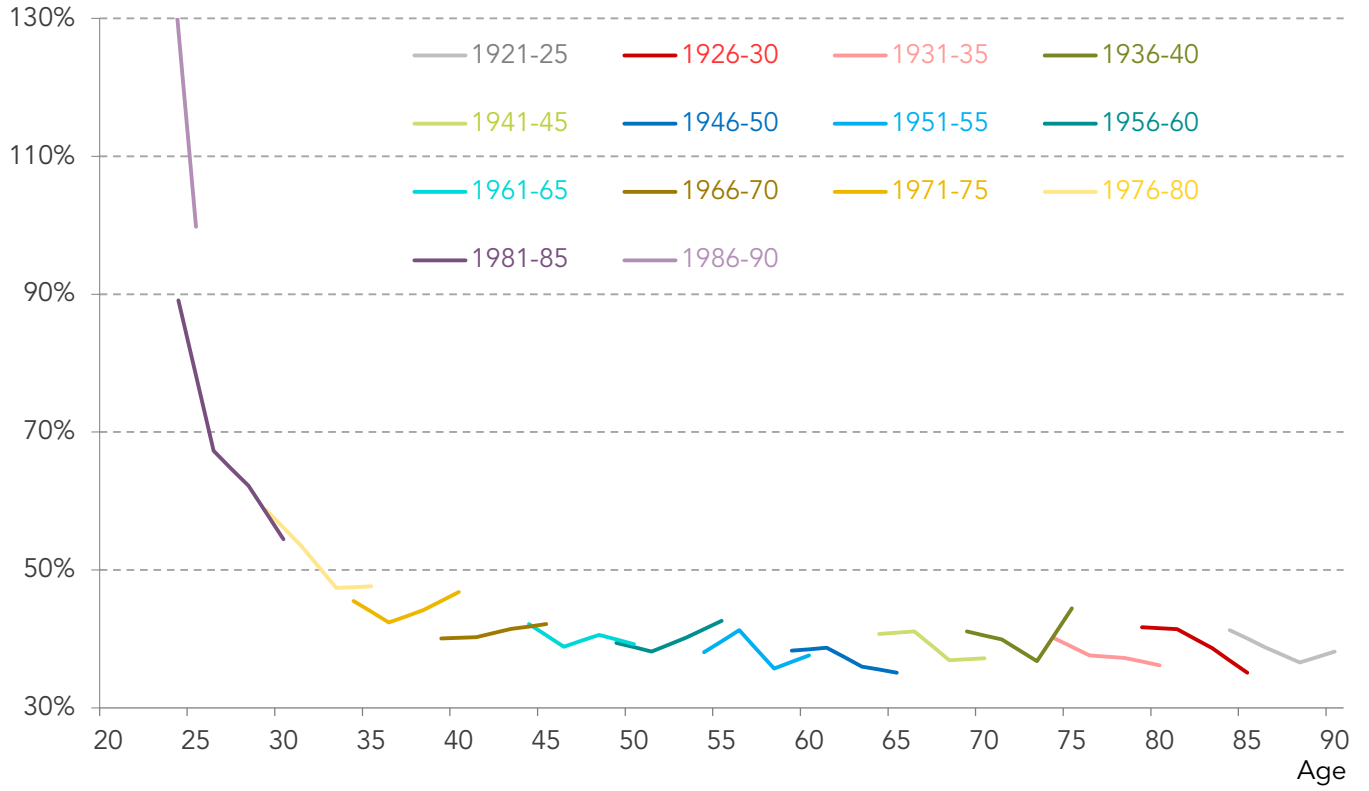
Notes: Excludes physical wealth.

Source: RF analysis of ONS, *Wealth and Assets Survey*

The trend of older cohorts having greater wealth than those coming after that we uncovered at the start of this section is also continued as we look across the distribution. This is true for cohorts from the 1950s onwards at the 25th percentile, from the 1956-60 cohort onwards at the median and from 1961-65 onwards at the 75th percentile. The erosion of generational progress is visible across the distribution, though it appears to manifest itself first at the less wealthy end of the spectrum.

While a focus on differing trends across the 25th, 50th and 75th percentiles gives a good sense of what is happening to inequality within cohorts, considering the share of total net wealth held by those at the top is another valuable approach. As we noted in Figure 9 in the previous section, the wealthiest families hold vast sums of net financial, private pension and net property wealth. Figure 25 presents a cohort-specific version of that analysis by setting out the share of total net wealth held by the wealthiest 10 per cent within each cohort at each age. Cohort-specific Gini coefficients for total net wealth – shown in Figure 42 in Annex 1 – give a similar picture to this 10 per cent share measure.

Figure 25: **Share of family total net wealth per adult held by top 10 per cent, by cohort: 2006-08–2012-14, GB**



Notes: Excludes physical wealth. Because net wealth can be negative, it's possible for a subset of the population to hold more than 100 per cent of net wealth.

Source: RF analysis of ONS, Wealth and Assets Survey

In most cohorts this share averages around 40 per cent, but it is drastically higher among younger cohorts. There is some initial evidence that for the 1970s and 1980s cohorts, this concentration of wealth could be on the rise. Consider for instance the extent to which the share held by the top 10 per cent increases at age 40 among the 1971-75 cohort

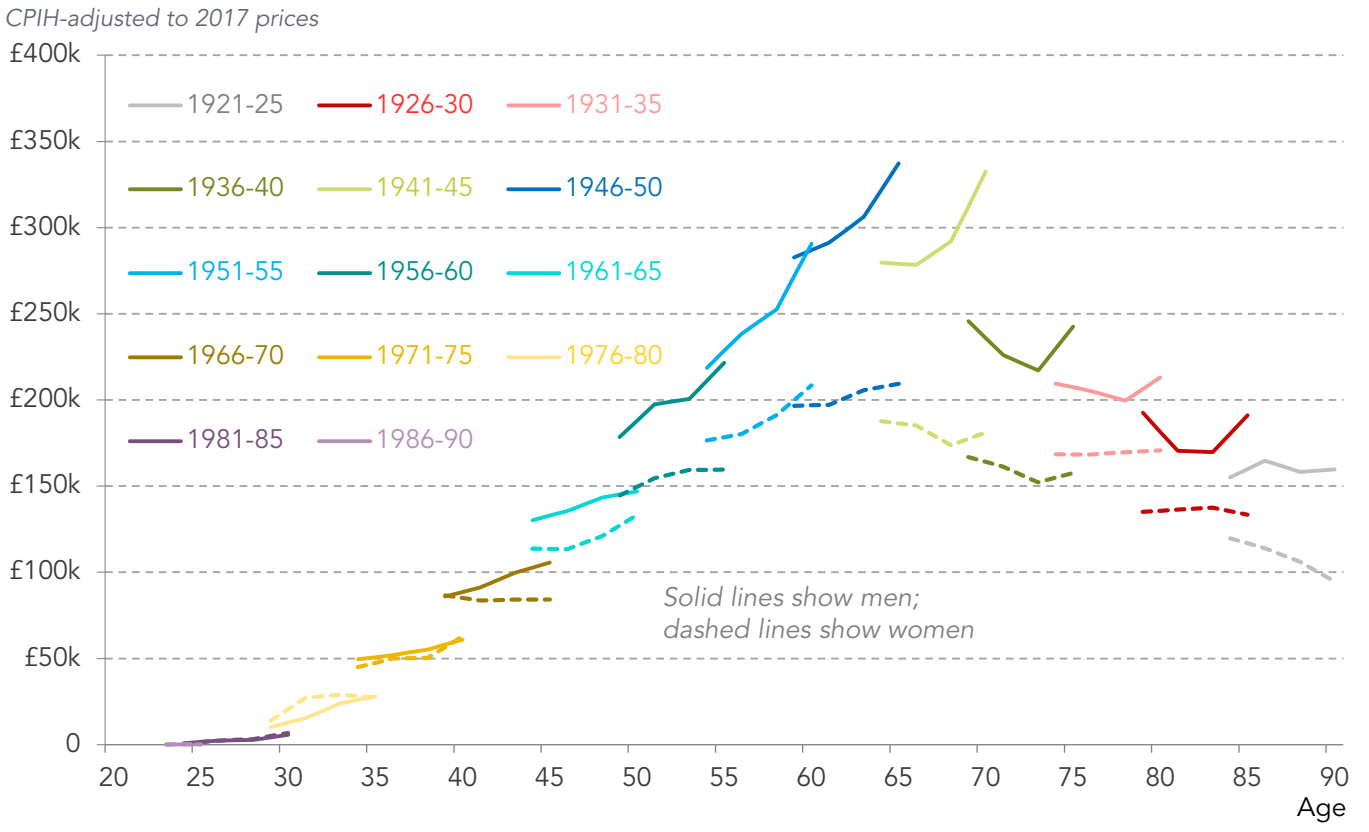
relative to the 1966-70 one; likewise, the share of total net wealth held by the top 10 per cent in 1986-90 cohort is significantly higher at age 25 than the share recorded in the previous cohort. As noted elsewhere however, the period covered in this chart centres around the financial crisis and should therefore be approached with some caution.

Differences between men and women are another key aspect of intra-cohort inequality

As we noted in Section 2, an important element of inequality that our preferred measure of wealth – family units on a per adult basis – overlooks is the different outcomes for men and women within those families. Depending on how families accumulate and use wealth, this divide may be relatively less important if assets are broadly accrued and shared equally. But of course, not all families will do so, and the issue of who owns what becomes much more relevant if a couple separates.

Figure 26 presents total net wealth but split along gender lines. Men and women have roughly similar amounts of wealth until we reach the 1966-70 cohort at age 40, with the gap then widening among those born earlier. Whether this pattern among younger cohorts represents a genuine shift towards greater wealth equality arising from women's increased participation in the workplace, or whether this is a life-course trend – with mothers being less likely to work and lower paid on average leading to a gap opening up – is unclear.

Figure 26: **Median individual total net wealth, by cohort and sex: 2006-08–2012-14, GB**



Notes: Excludes physical wealth.

Source: RF analysis of ONS, Wealth and Assets Survey

It is potentially telling, however, that at the point at which we see a divergence opening up between men and women (among the 1966-70 cohort) it is flat-lining of wealth growth for women rather than particularly rapid accumulation for men that appears to be responsible for the disparity. Given that men and women in this cohort started the period with comparable levels of wealth, the implication is that something occurs at this age which pushes against further gains in asset accumulation among women.

Tackling wealth accumulation challenges requires an acknowledgement of differences both across and within cohorts

This section has considered inequalities across cohorts and inequalities within cohorts. A number of trends are clear. Most pointedly, we can see strong signs that cohort-on-cohort improvements in asset-owning have shifted into reverse. Indeed, the 'tipping point' looks to have arrived much further up the age range than is often supposed.[28] While the worrying shifts outlined in Section 1 on earnings and home ownership in particular are often presented as clear warning signs in terms of the prospects of millennials, we have now shown how even younger baby boomers have been affected by the apparent end to generational progress on wealth.

While these gaps between generations are stark, it is apparent that inequalities *within* generations are also an issue worthy of consideration. It is undoubtedly true that baby boomers on average appear to have better prospects on wealth than do their younger counterparts, but it would be a mistake to assume that all members of the generation are equally set fair. This matters especially when we turn to policy considerations. With wealth inequalities appearing to widen across younger generations – driven in no small part by changing patterns of home ownership – it is essential that policy makers seek to tackle both within- and across-generation inequalities over the coming years.

Also of importance when contemplating policy action is an understanding of the means via which different cohorts have secured wealth gains, be they related to 'active' or 'passive' factors. That is, to what extent differences in asset building have stemmed from proactive individual action and to what extent they flowed from wider economic circumstances over which the individual has no real control. That's the topic we turn to in Section 4.

28 Annex 1 presents further analysis showing which cohort marks this tipping point for each of the different components of wealth.

Section 4

How cohorts build up and run down wealth: active and passive accumulation

So far in this report we have summarised trends in total family wealth per adult and its components. We have highlighted headline changes, movements across the wealth distribution, and trends within and across different birth cohorts. In this section we turn to consideration of the factors that have driven these trends.

In particular, we use a method that exploits the longitudinal nature of our data to distinguish between 'active' wealth accumulation (that which is driven by behaviours like putting income into savings or accruing pension rights) and 'passive' saving (that which is driven by broader economic trends like interest rate changes and house price growth). We find that cohorts containing the baby boomers (those born in the 1940s, 1950s and 1960s) have been the main beneficiaries from passive forms of accumulation, because they were very often possessors of houses and defined benefit pensions when the biggest of these economic shifts took place. Moreover, there are few reasons to believe such windfall gains are likely to be repeated to anything like the same extent for younger cohorts as they age.

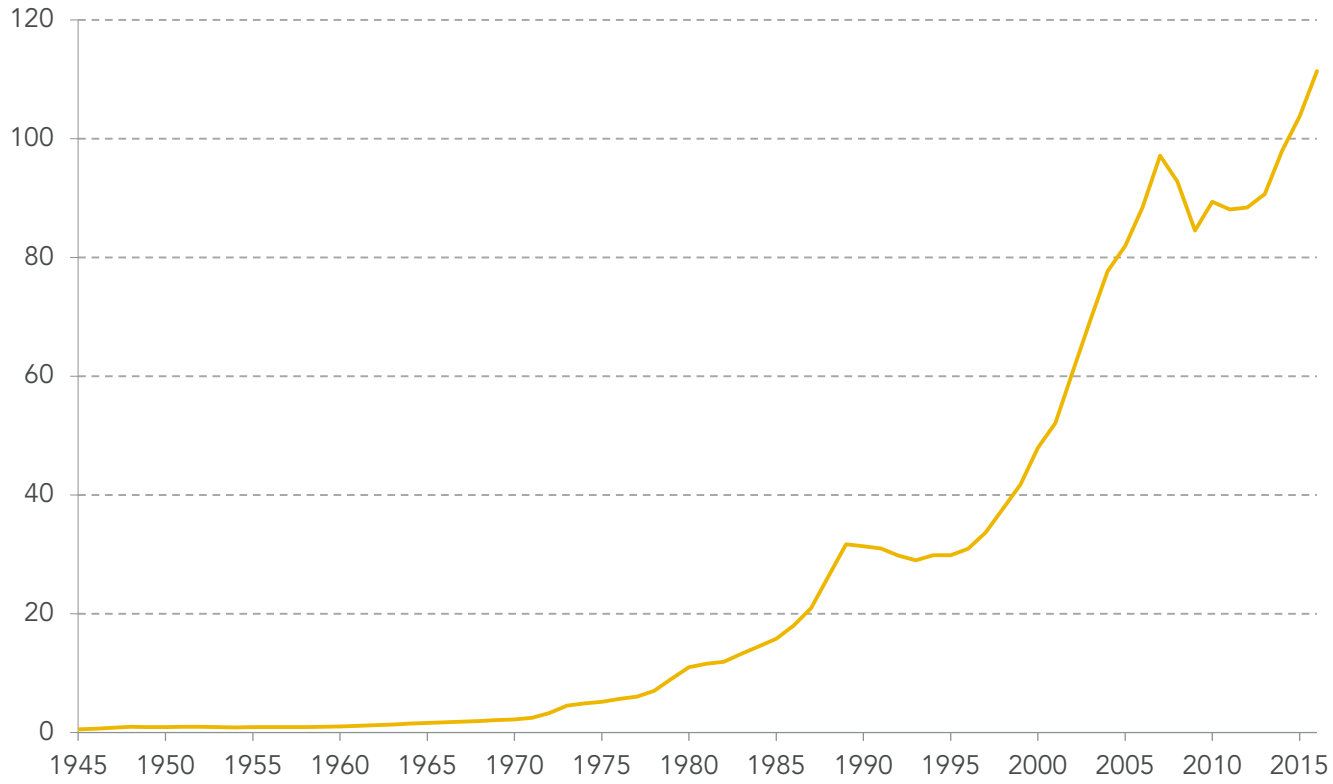
By isolating the same families over time and separating out the impact of wider economic shifts from active behaviours around wealth, the analysis in this section also provides insights on the extent to which families run down wealth in later life. Removing passive wealth impacts shows that, on average, older cohorts are decumulating substantial amounts. This supports the idea that wealth is important for delivering living standards in retirement. However, active decumulation is not as rapid as one might expect if providing income to families in retirement were the sole function of wealth. The competing purposes wealth serves highlight the overlapping policy challenges relating to wealth accumulation and decumulation, which we touch on briefly in Section 5.

Macroeconomic shifts have had a large impact on both aggregate wealth in Britain and the distribution of wealth across families

As discussed in previous sections, the increase in aggregate wealth in recent decades can in part be attributed to particularly rapid house price growth from the mid-1990s to the mid-2000s. These trends are clearly visible in Figure 27, with house prices more than tripling between 1993 and 2007.

Figure 27: **House price index: 1945-2016, GB/UK**

January 2015 = 100, nominal prices



Notes: Composite measure derived from a combination of different sources. Corresponds to the UKHPI series from 2005 onwards.

Source: Bank of England, *Three Centuries of Data*

Since the financial crisis, private pension wealth has played a dominant role. In particular, falling annuity rates have dramatically increased valuations of defined benefit pension entitlements.

But how do these and other wider economic trends play out at the family and cohort level, and what can they tell us about how different families and cohorts build up and run down wealth?

Previous research and the popular narrative certainly recognise the salience of these questions. Analysis of the impact of house price growth on personal wealth between 1995 and 2005 has shown that rising prices explain the large majority of household net property and financial wealth increases.[29] Driven by the fundamentals of the housing market pushing up land values, this has been described as a 'housing windfall' experienced by those in possession of property.[30]

29 F Bastagli & J Hills, 'Wealth Accumulation, Ageing and House Prices', in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

30 D Maxwell & S Sodha, *Housing Wealth: First Timers to Old Timers*, Institute for Public Policy Research, June 2006

Similarly, the rising 'cost' to employers (which translates into an individual wealth gain) associated with meeting DB pension obligations in the face of longevity increases and falling interest rates is something previous research for the Intergenerational Commission has set out in detail.[31]

The implication of these trends across age-groups and generations is something that analysis for the Intergenerational Commission has also highlighted. Most obviously this can be seen in the lower proportions of younger generations possessing houses and DB pensions at the point when macroeconomic trends have rapidly increased their value.[32]

In addition, there are compounding factors from a generational perspective. We've previously shown that the concentration of multiple property ownership among prime age and older households means baby boomers received £4 billion per year in rent during 2012-14, primarily from younger people.[33] This is in effect a transfer from the incomes of younger generations that supports the wealth accumulation of older ones. And our analysis suggests that firms that are forced to close the deficits that have opened up in their DB pension funds are reducing the pay of current employees. This pay penalty exists even among (usually younger) lower-earning workers who've never been a member of the firm's pension scheme, reducing earnings by an average of £200 a year.[34]

As well as the overall generational perspective, parts of these debates have focused on the degree of 'active' behaviour or astute investment decision-making associated with rising wealth holdings, as opposed to the role of 'unexpected' external forces or 'luck'. It's common to talk of people's houses having 'earned more than they have',[35] perhaps implying a distinction in terms of the level of personal endeavour associated with each type of 'earning'. The fact that the house price boom and its impact on the asset holdings of mainly-older families came as something of a surprise is a common theme,[36] as is the idea that the relative value of DB pension rights has risen far beyond what anyone was expecting when they joined schemes.[37]

In this context, the remainder of this section presents new analysis of the respective roles of 'active' behaviours for accumulating wealth and 'passive' gains associated with (often unexpected) wider economic shifts, overall and for different cohorts. The purpose of this analysis is to aid understanding of how overall and cohort wealth patterns have come about, and what this might mean for policies associated with wealth and its accumulation, uses and tax treatment.

31 B Bell & M Whittaker, *The pay deficit: Measuring the effect of pension deficit payments on workers' wages*, Resolution Foundation, May 2017

32 L Gardiner, *Stagnation generation: The case for renewing the intergenerational contract*, Resolution Foundation, July 2016

33 L Gardiner, *Stagnation generation: The case for renewing the intergenerational contract*, Resolution Foundation, July 2016

34 B Bell & M Whittaker, *The pay deficit: Measuring the effect of pension deficit payments on workers' wages*, Resolution Foundation, May 2017

35 M Robinson, 'Does your house make more than you?', *BBC News*, 1 August 2014

36 For example, see: B Gordon, 'Buying a house is like a game of Monopoly, where the young always lose', *The Telegraph*, 19 February 2014

37 D Willetts, 'The generational pensions divide', *Intergenerational Fairness Bulletin Issue 2*, Institute and Faculty of Actuaries, April 2017

We can draw a distinction between 'active' saving (and dis-saving) and 'passive' wealth accumulation

Our approach to distinguishing between active and passive saving makes use of the longitudinal nature of our data to assess how individual families' wealth holdings change over time. Box 2 summarises our methods, with further detail provided in Annex 2.

Very briefly, for property and financial wealth we characterise all changes in debt as active saving, as well as instances where families appear to move house; put money into property, savings products and investments; or take it out (active dis-saving). In contrast, passive accumulation is the element of wealth changes that reflects the return on already-held assets, as determined by a combination of reported gross property wealth changes, regional house prices indices and average returns on different types of financial investment.

We don't have the necessary information to apply a similar method to private pension wealth changes, but we can calculate 'valuation' (similar to passive) changes in private pension wealth associated with shifts in annuity and discount rates due to longevity and interest rate movements. Because DB pension wealth is valued in our data as the equivalent DC fund required to purchase that level of future income on the market today, these 'valuation' changes can lead to big shifts in measures of DB wealth (and wealth associated with pensions in payment).

i Box 2: Decomposing active and passive saving in property, financial and private pension wealth

Our approach to distinguishing between active and passive saving (which is described in more detail in Annex 2) draws heavily on previous analysis by the Institute for Fiscal Studies in *The Evolution of Wealth in Great Britain: 2006-08–2010-12*.[1] This analysis used the first three waves of the *Wealth and Assets Survey* (WAS); we extend it by including the fourth wave of this survey and by replicating the method in the earlier *British Household Panel Survey* (BHPS) in the case of property wealth.

As opposed to the 'cross-sectional' analysis set out in Section 3, here we make use of the longitudinal nature of our data to assess how the assets of 'stable' families (benefit units in which the composition of the adults doesn't change due to coupling, separation or death) change between two periods of time. To minimise the compositional distortions associated with focusing only on 'stable' families, we create successive short-panel longitudinal samples of each pair of adjacent waves of survey data, and adjust weights to account for attrition or compositional changes to families excluding them from these samples.

Within these short panels, our approach decomposes changes in each of the three main asset classes into active and passive elements, as follows:

» **Net property wealth**: For home-owning families in both waves that don't move house (movers) or report extending their main residence (improvers), all changes to gross main property wealth are considered to be passive saving. For movers, improvers, and those owning other property, passive saving is estimated using gross property wealth in the first wave and the average change in regional property prices according to published house price indices. Active saving for these groups is therefore the difference between the reported change in gross property wealth and this estimate of the passive element.

  The gross wealth changes of those who take on gross property wealth (e.g. first-time buyers) or go from having some to having none (e.g. exiters from home ownership) are all active, as are all changes to mortgage debt levels.

» **Net financial wealth**: Passive changes to gross financial wealth are estimated using gross holdings of different types of financial assets (for example distinguishing between 'safe' and 'risky' investments) in the first wave, and the average returns to such assets at that time according to published indices. Active saving is then estimated as the difference between the reported change in gross financial wealth and this estimated passive change. All changes to financial debt levels are active saving (or dis-saving).

» **Private pension wealth**: The data on pension contributions in WAS does not allow us to decompose active and passive pension saving in a similar manner to our approach to property and financial wealth. This is because we don't have the information to distinguish between personal, employee and employer contributions on the one hand, and the passive return received on previously-accumulated funds on the other.

  Instead, we exploit the method for valuing defined benefit (DB) pension wealth (and the wealth associated with pensions in payment) in this survey. This converts these obligations into the size of defined contribution (DC) fund that would be required at the time to purchase that future income stream, valued according to annuity rates and a discount factor that takes into account interest rates (and the number of years until retirement in the case of pension not in receipt). Our method calculates 'valuation' (similar to passive) changes to pension wealth as the difference between wealth in the second wave, and wealth in the second wave when valued using the annuity and discount rates from the first wave.

  'Non-valuation' (similar to active) changes are the difference between the total change in private pension wealth and the 'valuation' change, i.e. those changes deriving from changing accruals or earnings affecting the (future) income stream the pension will provide. This decomposition is not relevant for DC and personal pensions, in which wealth is simply the accumulated fund.

1 R Crawford, D Innes & C O'Dea, *The Evolution of Wealth in Great Britain 2006-08–2010-12*, Institute for Fiscal Studies, November 2015

Our analysis is of nominal wealth changes, which we then convert to real cohort wealth trends as presented in Section 3 in order to show the role of active and passive saving in driving the patterns we've so far discussed. In addition, in what follows we distinguish between the element of passive accumulation that is in line with what might have been expected as a reasonable growth rate for that type of asset upon active investment in it, and the element over and above what might be considered reasonable expectations.

While we think this method is informative in terms of understanding how overall and cohort wealth patterns have come about and what this might mean for policies associated with wealth, it has its limitations:

- As previously mentioned, one is that we cannot estimate the passive accumulation associated with the investment returns on already-held DC and personal pension funds in the way that we do for property and financial wealth returns.

- Our approach – by focusing on the narrow 'benefit unit' definition of families and not the intergenerational relationships between them – doesn't specifically account for inheritances and intergenerational gifts. This means that the occurrence of such transfers will be treated as active accumulation, when in many people's eyes it might be more properly thought of as passive. A future report for the Intergenerational Commission will explore intergenerational family wealth transfers in more detail including the question of the role they play in some younger families' wealth accumulation. But for this analysis, it should be noted that the exclusion of gifts and inheritances could be considered to understate levels of passive accumulation.

- In the case of property wealth, we take no account of the depreciation of assets over time. What this means is that – apart from for those who report extending their main residence – our method doesn't capture the expense (which would be thought of as a part of active saving) associated with maintaining houses or increasing their value.[38] So in this sense we may be under-capturing active property wealth accumulation.

- In the case of private pension wealth from DB pensions, an element that our method doesn't capture is the changes to some pensions associated with the indexation of benefits. For example, changes to the inflation index most people judge to be the most accurate;[39] legislative changes requiring indexation of future pension rights in line with inflation;[40] and changes to the law surrounding property rights and fund protection have all increased the level of future income and strengthened members' claim on it in recent decades. Such changes might be thought of as unexpected at the time when individuals joined schemes and therefore part of passive accumulation or 'valuation' changes, meaning our method may be thought of as under-capturing non-active elements of pension wealth growth.

With these as caveats, the following sub-sections set out our findings on cohorts' active and passive saving in property, financial, and private pension wealth. Because active positive saving in one of these might often be associated with active dis-saving in another – for example a family that takes money out of financial assets to buy a house – we also present combined active and passive changes to total net wealth.

38 Calculations of imputed rents would be one way of getting at this question, but this information is not available in our data.

39 See: S Clarke, *The going rate: Moving from CPI to CPIH and the inflation experiences of UK households*, Resolution Foundation, March 2017

40 Aviva, 'The rise and fall of defined benefit pensions', *Aviva news and views*, June 2016

The vast majority of property wealth growth over the past two decades has been driven by the house price boom rather than active savings behaviour

We turn first to net property wealth, for which our method describes changes associated with the rising value of already-held property assets that aren't improved[41] as passive changes; while changes to debt and those associated with moving and improving property are active.

Figure 28 summarises our results (in nominal terms) over the period from 1993 to 2012-14. Our findings cover the whole population and different ten-year birth cohorts, in both cases including non-owners who by definition have zero net property wealth.

We estimate that the vast majority (94 per cent) of overall nominal net property wealth increases over these two decades came about as a result of passive accumulation driven by house price growth, rather than active savings behaviour associated with putting money into property or paying off debt. This estimate is in line with previous work that conducted a similar exercise using the BHPS over the period from 1995 to 2005,[42] and the post-2006 estimates are in line with those in the Institute for Fiscal Studies report we base our method on.[43]

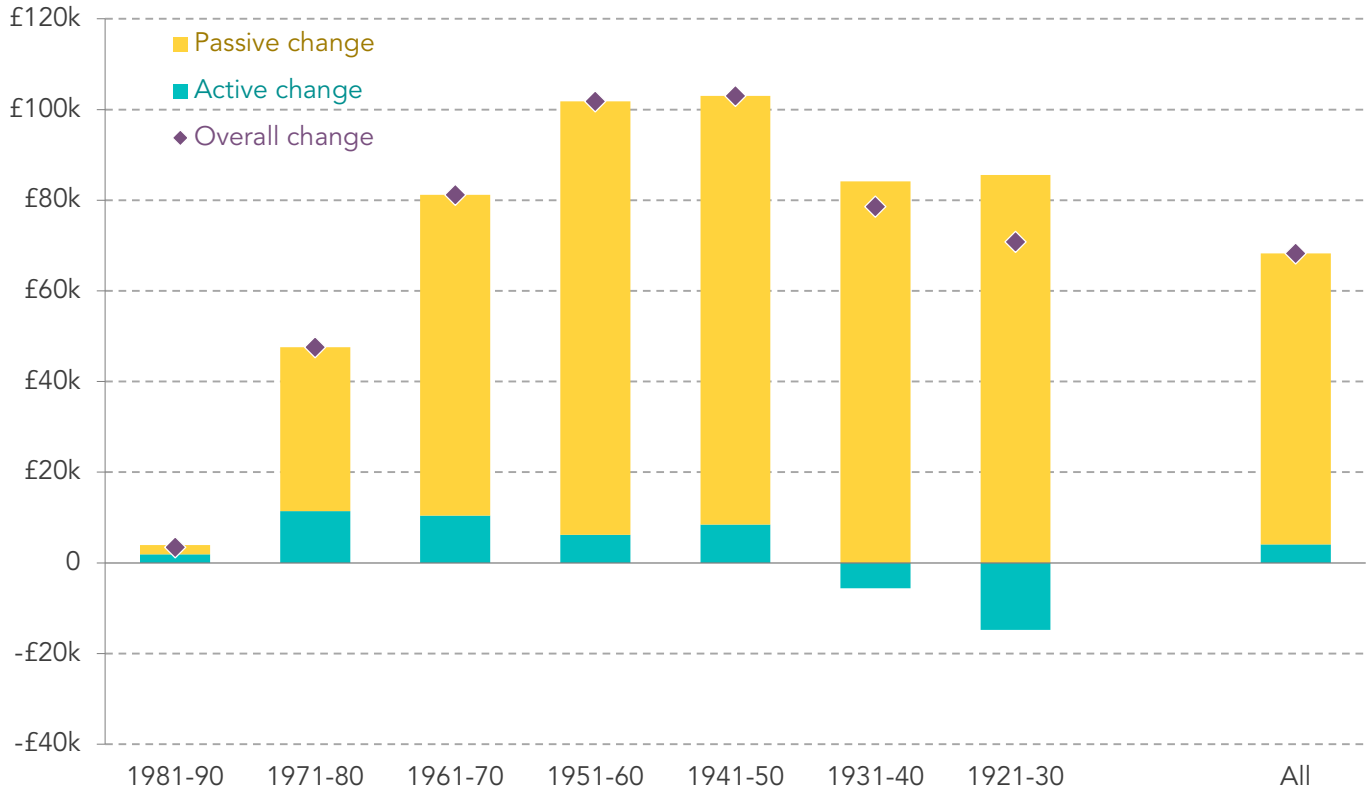
41 We are only able to identify 'improvers' – families that have extended their main residence – in the period covered by the Wealth and Assets Survey (2006-08–2012-14), as this information is not captured by the British Household Panel Survey.

42 F Bastagli & J Hills, 'Wealth Accumulation, Ageing and House Prices', in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

43 R Crawford, D Innes & C O'Dea, *The Evolution of Wealth in Great Britain 2006-08–2010-12*, Institute for Fiscal Studies, November 2015

Figure 28: **Active and passive changes to family net property wealth per adult, by cohort: 1993–2012-14, GB**

Mean, nominal prices



Notes: Cohort trends in active and passive changes to net property wealth in the British Household Panel Survey are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. Cohort trends are relatively consistent during the period where the data overlap. See Annex 2 for full details of the method for deriving active and passive changes.

Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *Wealth and Assets Survey*; ONS, *UK House Price Index*

Part of the reason why active changes make up such a small part of the average change for the population of adults as a whole is that, as Figure 28 shows, families actively save in property wealth at some points in their lives and actively decumulate at other points. Active net property wealth changes are negative on average for cohorts born in the 1920s and 1930s over this period (mainly in their 60s, 70s and 80s at the time). We look in more detail at the decumulation of net property wealth and other kinds of wealth by older families at the end of this section.

For cohorts containing the baby boomers (those born in the 1940s, 1950s and 1960s) active changes are positive on average, but passive changes compose around 90 per cent of net property wealth accumulation. The 1970s and 1980s cohorts were not adults throughout the whole period in question which is one reason why their nominal accumulation is lower overall, but Figure 28 also shows that a smaller proportion of these cohorts' net property wealth changes is passive (76 per cent and 59 per cent respectively). This is perhaps unsurprising given that many families first move into home ownership (and therefore actively invest in property) when young.

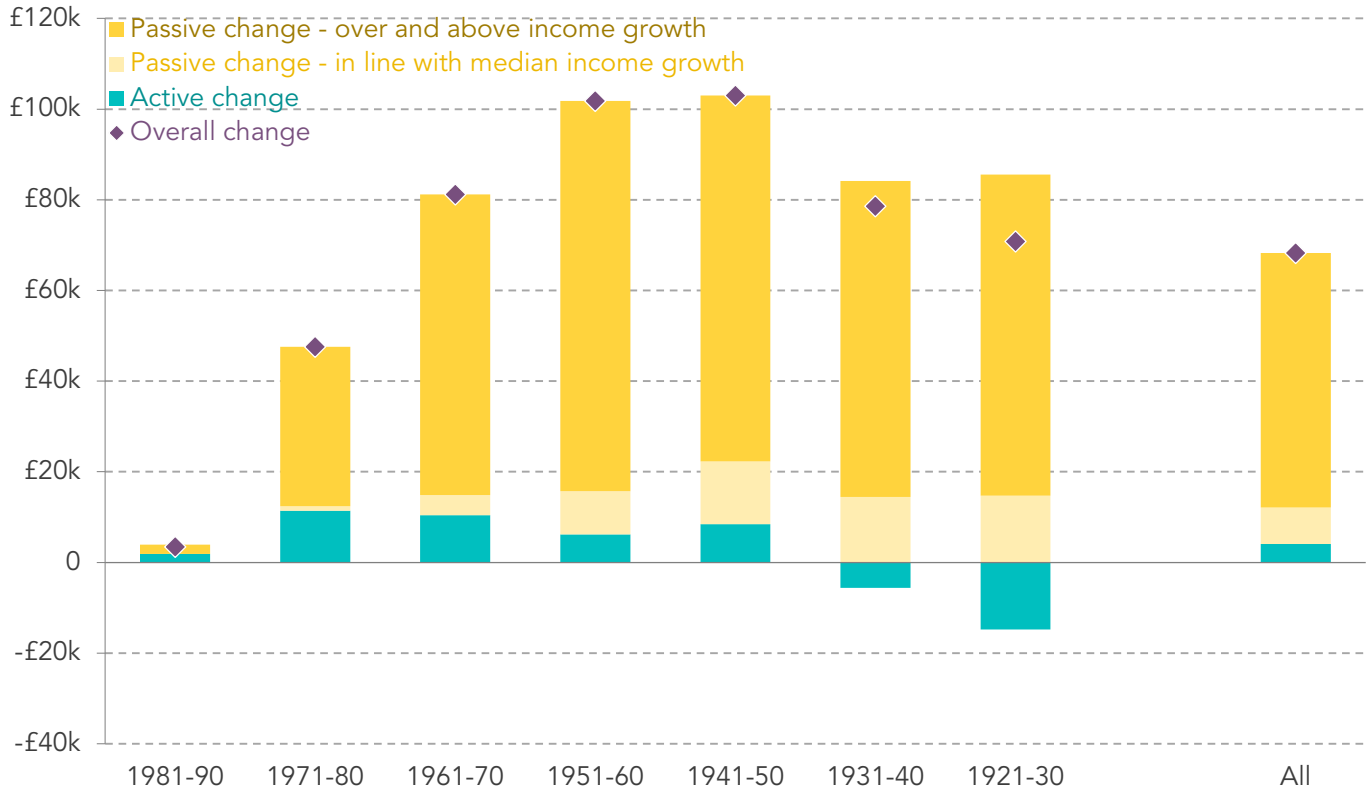
Of course, grouping the entirety of passive nominal changes together could be considered an overstatement. This is because it implies that part of passive accumulation is just house prices keeping up with the wider economy.

To account for this, Figure 29 separates out the element of passive saving that is in line with median income growth, which historical experience in the UK and the economic literature suggest would be a reasonable benchmark for how property price growth might behave and therefore what families might expect to get as a return.[44] It shows that the in-line-with-income-growth element of passive net property wealth changes is larger for older cohorts (due to their higher property values). But even with this qualification in place, passive changes continue to dominate overall and for all cohorts old enough to own property during this period.

Across cohorts, passive changes over and above income growth account for 82 per cent of the growth in net property wealth between 1993 and 2012-14, equivalent to real growth of £2.3 trillion at the aggregate.[45]

Figure 29: **Active, passive and income growth-consistent changes to family net property wealth per adult, by cohort: 1993–2012-14, GB**

Mean, nominal prices



Notes: Cohort trends in active and passive changes to net property wealth in the British Household Panel Survey are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. Cohort trends are relatively consistent during the period where the data overlap. See Annex 2 for full details of the method for deriving active and passive changes.

Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *Wealth and Assets Survey*; ONS, *UK House Price Index*

44 P Arestis et al., *Modelling the Housing Market in OECD Countries*, Levy Economics Institute, May 2013

45 CPIH-adjusted to 2017 prices. Trends in aggregate net property wealth in the British Household Panel Survey are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. Trends are relatively consistent during the period where the data overlap.

Although secondary to this description of how the market outperformed reasonable benchmarks, it's worth noting that median earnings grew at a similar rate to median incomes in this period. A stylised interpretation of the residual passive element shown in Figure 29 is the extent to which housing capital has rewarded owners over the past couple of decades over and above the reward accruing to those possessing *human* capital.

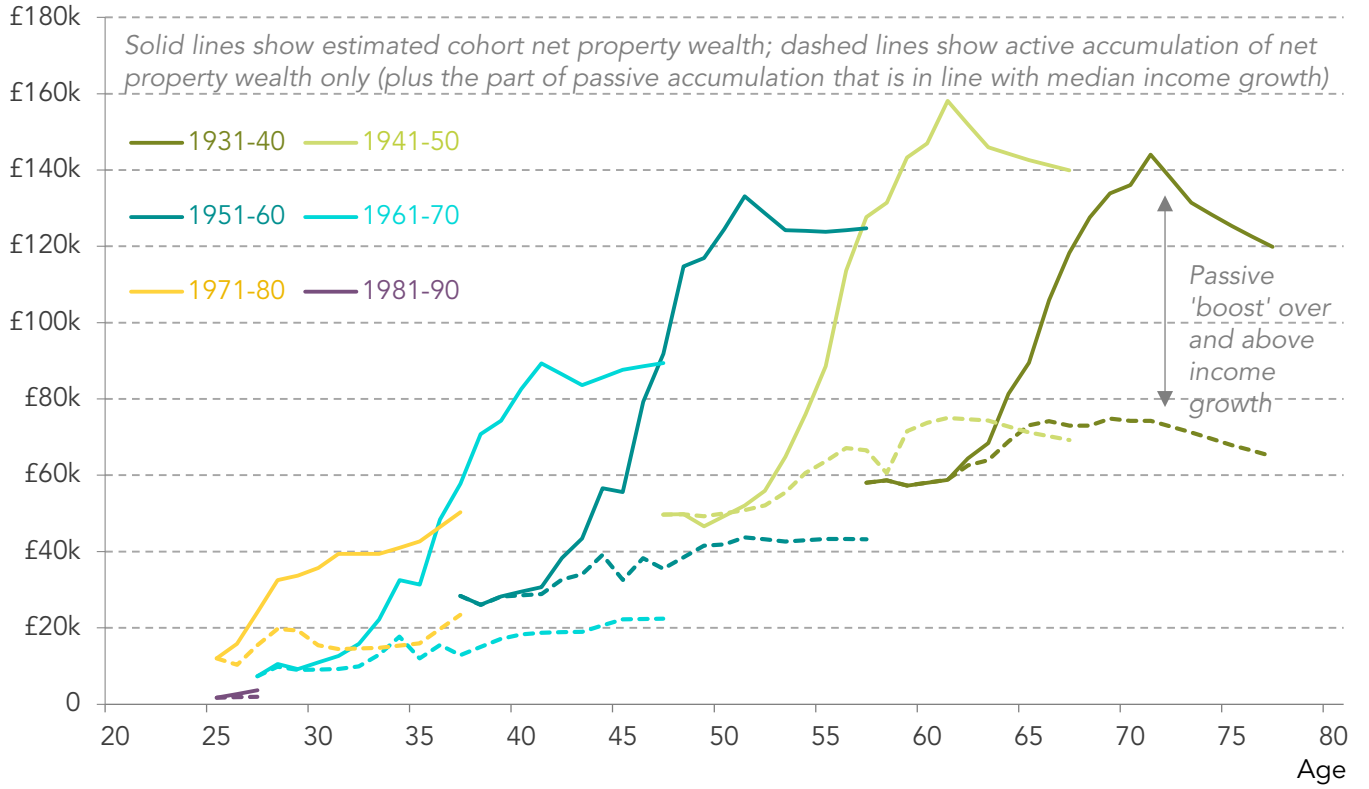
Figure 30 displays the trends shown in Figure 29 in the same format as we presented average cohort wealth trends in Section 3. The solid lines show overall net property wealth for each cohort at each age, and the dotted lines show what accumulation would have looked like during this period had active saving been the same but property values increased only in line with incomes. Echoing the story in Figure 29, it's clear that passive property gains benefitted those born in the 1940s and 1950s in particular. For example, the 1950s cohort experienced an average real housing windfall (above-income passive net property wealth growth) of £80,000 over these two decades. This is compared to a passive boost of just £35,000 for those born in the 1970s (who were only old enough to benefit from the later years of the house price boom).

Unsurprisingly, absent these above-income-growth passive changes, the pattern is of considerably more muted net property wealth growth for all cohorts. Nonetheless, net property wealth would still have grown by 37 per cent in real terms in the two decades to 2012-14, and by 39 per cent for the 1940s cohort and 52 per cent for the 1950s cohort. Again, these trends for different cohorts are in line with those found in a similar exercise that used the BHPS to assess the impact of house price growth on property wealth at different ages.[46]

46 F Bastagli & J Hills, 'Wealth Accumulation, Ageing and House Prices', in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

Figure 30: **Overall family net property wealth per adult including and excluding post-1993 passive changes, by cohort: 1993–2012-14, GB**

Mean, CPIH-adjusted to 2017 prices

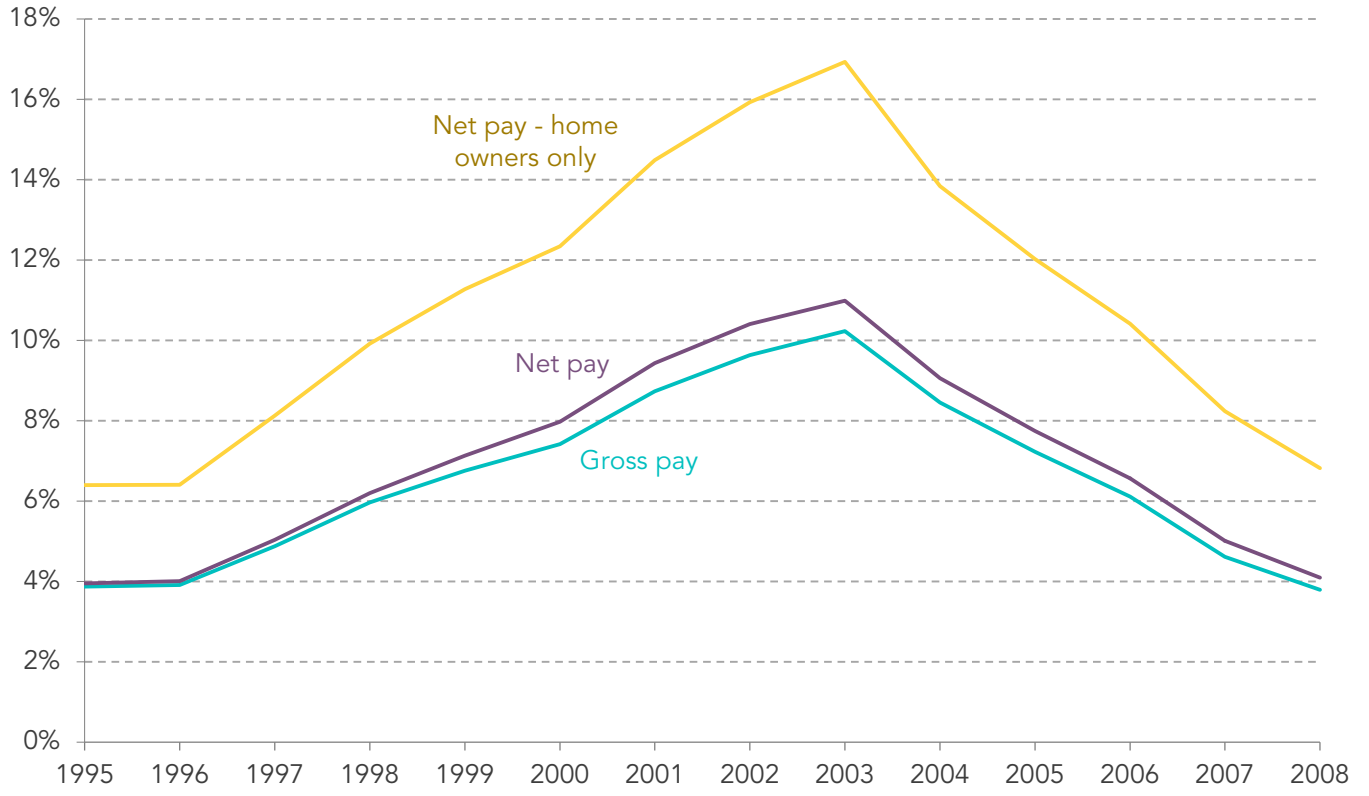


Notes: Cohort trends in active and passive changes to net property wealth in the British Household Panel Survey are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. Cohort trends are relatively consistent during the period where the data overlap. See Annex 2 for full details of the method for deriving active and passive changes.

Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *Wealth and Assets Survey*; ONS, *UK House Price Index*; DWP, *Households Below Average Income*

So large have these passive wealth gains been, the adage that people's houses have earned more than they have has rung true for a not-insignificant minority of families each year in recent decades. Figure 31 illustrates this by setting out the proportion of adults in families who had passive nominal net property wealth growth that was higher than family earnings in that year in the period between 1995 and 2008. The figures include families in which no one works and present results associated with both gross pay and net (after-tax) pay. We present a separate line that considers the trends just among home owners.

Figure 31: **Proportion of adults in families in which annual passive net property wealth growth is greater than annual earnings: 1995-2008, GB**



Notes: The sample is limited to families in which all adults are aged under 60, including all workless families and non-home owning families (apart from the 'home owners only' series). Earnings cover gross/net pay from employment and gross/net profits from self-employment. See Annex 2 for full details of the method for deriving active and passive changes.

Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *UK House Price Index*

At the peak in 2003, 2.6 million adults aged under 60 (11 per cent of the total, or 17 per cent of home owners) were in families who had passive nominal net property wealth growth that was higher than net family earnings in that year. Close to two-thirds (63 per cent) of this group were born in either the 1940s or 1950s (900,000 and 750,000 respectively), reflecting a combination of both high home ownership rates for these cohorts, and the inevitable tailing-off of family earnings as retirement approaches.

Another way of illustrating this finding is that between 1995 and 2008, passive net property wealth growth provided, on average, a 38 per cent 'bonus' on gross earnings to families in which all adults were aged under 60. This far outstrips the average tax take on those earnings in the same period, which was equivalent to 22 per cent of families' gross pay. In the five years when house price growth was strongest – between 2000 and 2005 – passive net property wealth growth provided a 'bonus' on gross earnings of 69 per cent for these families (compared to a tax take of 23 per cent of gross pay).

This analysis of the active and passive elements of net property wealth accumulation provides clear evidence of the dominant role played by rising house prices in wealth accumulation. This has benefited cohorts old enough to own property at the time (those born in the 1940s and 1950s in particular) and has likely been part of the cause for the subsequent fall in home ownership rates among younger groups.

Of course these figures are averages, and so mask the fact that a substantial proportion of older cohorts don't own property and so have not benefited from house price growth at all. Indeed, our analysis of net property wealth distributions *within* cohorts in Section 3 suggested that less wealthy members of these cohorts are currently doing worse than their less wealthy predecessors at the same age, even as their wealthier peers continue to surge ahead.

While not forgetting these inequalities within cohorts, the picture at the average is of very different experiences of passive property wealth accumulation across cohorts. The key question is whether younger groups – currently falling behind their predecessors in terms of real net property wealth at a given age on average – might experience these same kinds of housing windfall gains in future.

In our view, there are at least two reasons why these patterns for older cohorts look unlikely to be replicated. The first is that even in the medium- to long-term, another house price boom similar to that of the past decades is outside of most forecasters' range of expectations[47] (although there are some who think it's possible[48]). Indeed it is perfectly possible that house prices might fall and drive passive changes to net property wealth in the other direction, as they have in some years since the financial crisis. It should be noted that such an outcome would all-else-equal reduce the property wealth of mainly-older home owners and effectively cancel out some of the windfall gains we describe here.

But the second and more important reason is that, unless younger generations' home ownership rates (shown in Figure 2 in Section 1) catch up with those of predecessors at the same age, a smaller proportion will be in a position to benefit from any future house price boom that *does* materialise. Given rising prices and somewhat tighter mortgage market conditions have raised the entry barriers to home ownership, the outlook on this front is far from promising.

In sum, there are strong reasons to believe a housing windfall of the magnitude we've described here was a one-off: a potent combination of high property ownership and spiralling house prices that delivered a disproportionate benefit to a subset of cohorts in possession of large property assets at the time.

Over the nearer term, passive financial wealth accumulation has played a smaller role, but has again delivered the largest absolute wealth gains to older cohorts

Next we apply a similar approach to decomposing net financial wealth changes into active and passive elements. Changes associated with the rising value of already-held financial assets (estimated using published average returns on different asset classes) are passive, while putting money into (or taking money out of) savings and investment products, and changes to debt, are active. This analysis covers a shorter period of time (2006-08–2012-14) than the above discussion of property wealth changes because it is not possible to apply the method accurately to the BHPS data.[49]

47 PwC, *UK Housing market outlook*, July 2016

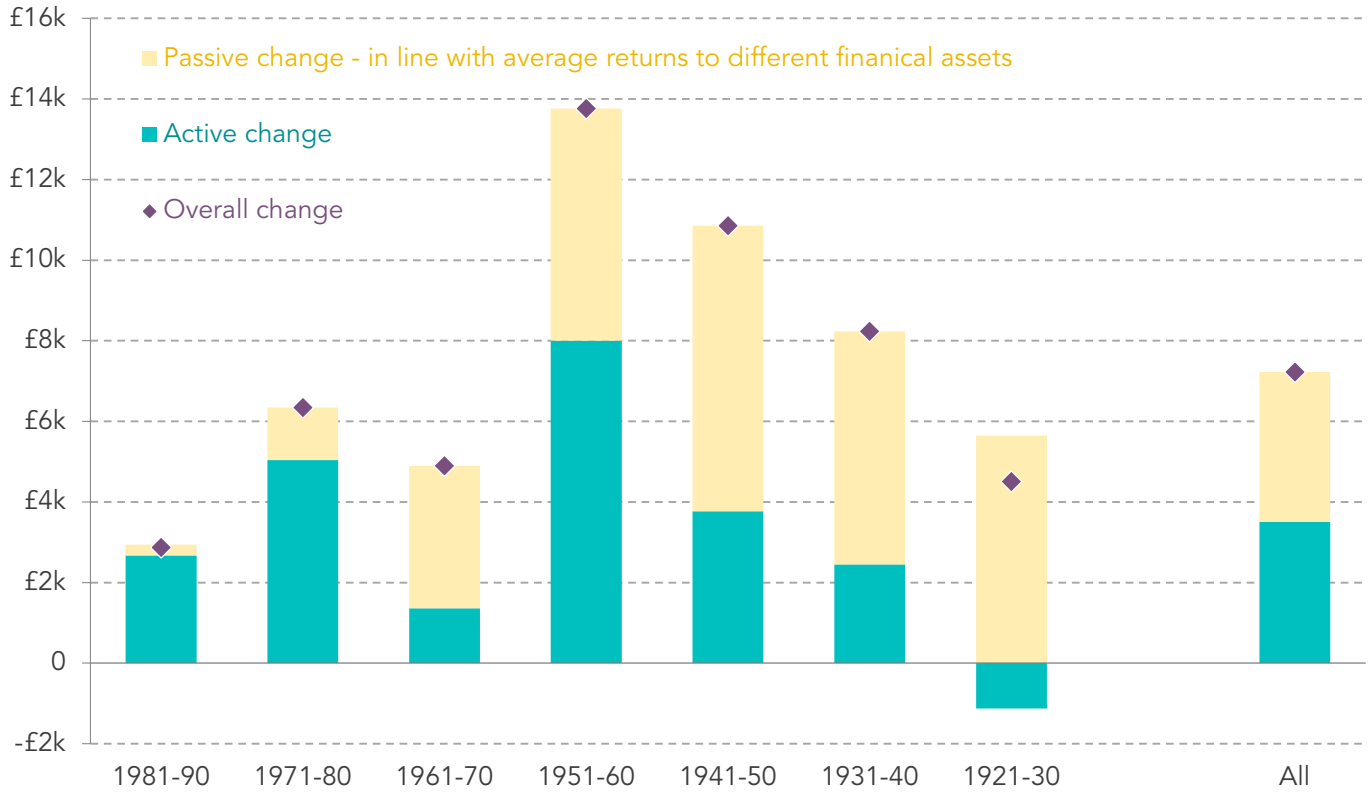
48 D Miles, 'Could houses become like jets: Too expensive to own?', *Imperial College Business School*, 24 February 2017

49 This is principally because the BHPS lacks detailed information on savings and investments held in different types of products. In addition, the five-year gaps between waves containing financial wealth information in

Figure 32 presents our estimates for the active and passive elements of nominal changes to net financial wealth in this period. Overall, half (51 per cent) of net financial wealth growth was passive over these eight years, rising to around two-thirds for cohorts born in the 1930s and 1940s. The pattern is a bit uneven but in general – and unsurprisingly – cohorts that were of working age in this period engaged in more active financial saving (or active debt reduction). Passive gains played a smaller role for these cohorts, largely due to the fact that they held smaller amounts of net financial wealth.[50] Only the 1920s cohort (mainly in their 80s during this period) actively decumulated financial wealth.

Figure 32: **Active and passive changes to family net financial wealth per adult, by cohort: 2006-08–2012-14, GB**

Mean, nominal prices



Notes: See Annex 2 for full details of the method for deriving active and passive changes.

Source: RF analysis of ONS, *Wealth and Assets Survey*; Bank of England, *Statistical Interactive Database – interest & exchange rates data*

However as with the discussion of the element of passive net property wealth growth that exceeds income trends above, it's important to benchmark these passive gains against expectations. Conceptually things are rather different here, as it is much easier to invest or remove wealth from financial assets in response to market fluctuations than in the case of net property wealth. Essentially, contemporaneous information on the

this survey mean compositional effects on the sample are more of an issue here.

50 A different mix of assets may also have played a role, with riskier assets that generally outperformed safer ones over this period concentrated in older cohorts' wealth.

returns to different asset classes is what's likely to set those expectations – the very data we use to estimate the passive element of financial saving. In this sense, then, for the relatively small portion of wealth that is held in financial assets, average gains overall and within broad birth cohorts are a product of active behaviours and market returns.

In terms of the future outlook, this analysis of active and passive net financial wealth accumulation perhaps raises fewer intergenerational concerns than our discussion of net property wealth. But two further points are worthy of note that we pick up again later in this section. The first is that net financial wealth is often a stepping-stone on the way into (or out of) property ownership, and so active negative changes may be accompanied by active positive changes to families' net property wealth (and vice versa). This is something our analysis of active and passive changes to total net wealth later in this section accounts for. The second is that even abstracting from passive net financial wealth accumulation, older cohorts do not appear to be running down their financial wealth very much. This suggests either that the return on assets rather than the capital itself is sufficient to support living standards for some older families, or that financial assets may be serving other purposes than delivering retirement living standards.

Passive changes to pension wealth associated with rising longevity and falling interest rates have boosted the assets of baby boomers in particular

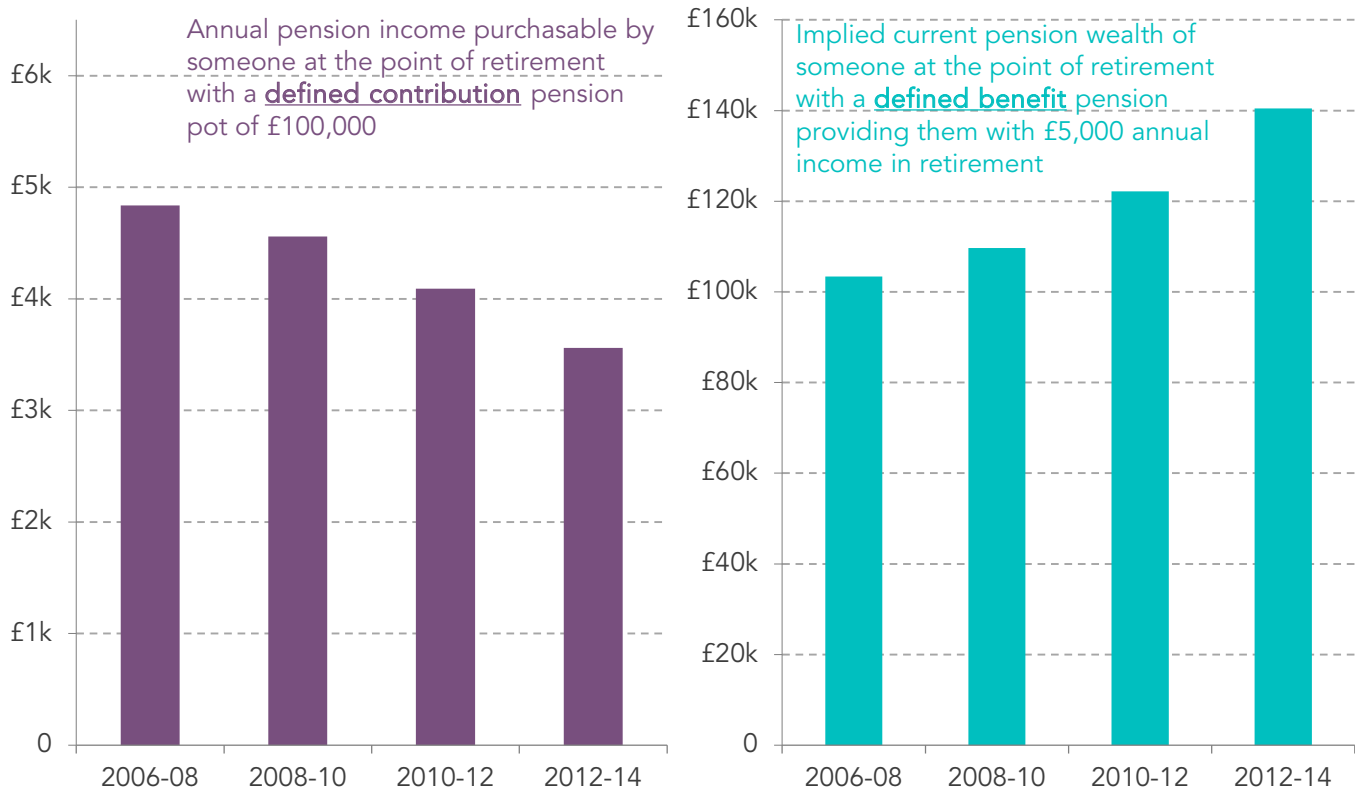
We turn next to the drivers of private pension wealth changes – analysis which again covers only the recent 2006-08–2012-14 period due to the availability of appropriate data. In particular, WAS is the first survey to value different kinds of private pension wealth on an equivalent and comparable basis. It does this by expressing DB pension rights (and rights from pensions in payment) in terms of the equivalent DC fund required to purchase that (future) income stream on the market at the time given prevailing annuity and discount rates. As set out earlier in this section, this means that the value of certain elements of private pension wealth can change not just because of changing accruals, but also due to movements in these wider market factors.

We cannot determine active and passive private wealth changes using the methods described above for property and financial wealth due to lack of information, but we can exploit the way the value of DB pensions is calculated to distinguish between the similar concepts of 'non-valuation' and 'valuation' pension wealth changes.

The wider context for both the period our analysis covers (2006-08–2012-14) and indeed the past four decades as a whole is of falling annuity and discount rates, which are shown in Figure 46 in Annex 2. These trends – driven by longevity improvements and the long-term decline in interest rates – serve to reduce the level of retirement income an individual at the point of retirement could purchase with a given pension pot. The impact across the period our analysis covers is shown for a hypothetical individual at retirement age with a DC pension fund of £100,000 in the left-hand panel of Figure 33: the income stream this pot can buy falls from just under £5,000 in 2006-08 to around £3,500 in 2012-14.

Figure 33: **The hypothetical impact of changing annuity and discount rates on the value of defined benefit and defined contribution pensions: 2006-08–2012-14, GB**

Nominal prices



Notes: Annuity rates for men retiring at age 65. Annuity rates and discount factors based on those used to calculate the value of defined benefit pension wealth in each wave of the Wealth and Assets Survey.

Source: RF analysis using ONS, *Annuity rates and discount factors for all waves of the wealth and assets survey*, April 2017

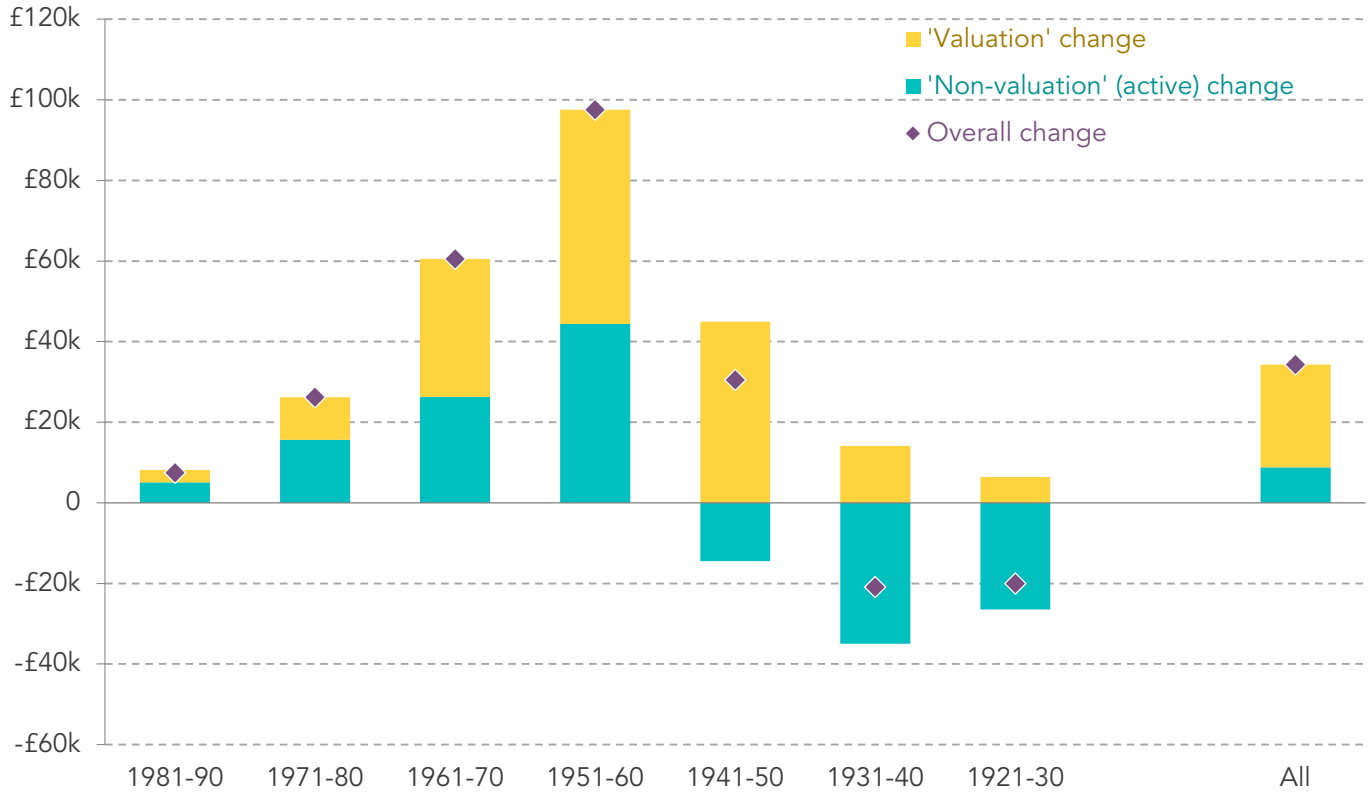
An alternative way of expressing this pattern is to say that DB pensions and pensions already in payment (where the income stream is fixed in nominal or real terms) have become more valuable relative to a constant DC fund over the same period. That alternative pattern is shown in the right-hand panel of Figure 33.

This *increase* in private pension wealth is the way in which deteriorating market conditions for those buying pension products feeds through to our analysis. It may seem counter-intuitive that a likely *decrease* in future pension income for many pensioners is expressed as an *increase* in private pension wealth, but this is a function of the methods required to assess the value of different types of pensions in a comparable way. In addition, this approach is fair when considering comparisons across different components of wealth.

So how does this feed through to the ways in which private pension wealth has changed? Figure 34 summarises our estimates of the impact of 'valuation' effects on pension wealth changes overall and for different cohorts. That is, those wealth *increases* in pensions that are protected against market risks that are only driven by the *deterioration* in annuity market conditions over this period.

Figure 34: 'Valuation' and 'non-valuation' changes to family private pension wealth per adult, by cohort: 2006-08–2012-14, GB

Mean, nominal prices



Notes: See Annex 2 for full details of the method for deriving 'valuation' and 'non-valuation' changes.

Source: RF analysis of ONS, *Wealth and Assets Survey; ONS, Annuity rates and discount factors for all waves of the wealth and assets survey*, April 2017

As with much of the discussion of active and passive determinants of housing and financial wealth changes above, we find that cohorts born in the 1940s and 1950s are again the biggest beneficiaries of such changes in nominal terms.

Across cohorts, 'valuation' changes account for 74 per cent of the growth in private pension wealth between 2006-08 and 2012-14, equivalent to real growth of £800 billion at the aggregate.[51]

It's worth re-iterating that the approach here is not the same as our method for determining passive changes to net property and financial wealth above. In particular, our estimate of 'valuation' changes doesn't account for the fact that many DB scheme members in the public sector and some in private companies now make an often-rising contribution from their earnings to help meet the costs of scheme provision that are being driven up by these 'valuation' effects.

Of course, such contributions are only possible for those with current DB wealth, as opposed to retained DB and pensions in payment. Across the population as a whole, current DB makes up only around 35 per cent of these three types of pensions that are

51 CPIH-adjusted to 2017 prices.

exposed to 'valuation' effects (and only 23 per cent on average for the cohorts born in the 1940s and 1950s). Moreover, the average DB employee contribution was only 5 per cent during 2011 to 2015,[52] a much lower proportion of average salaries than the scale of 'valuation'-driven increases uncovered by this analysis (especially given the averages in Figure 34 are for the whole of each cohort and not just those with current DB wealth or indeed any private pension wealth at all).

Figure 35 expresses this picture in terms of real cohort wealth trends at each age. It is clear that 'valuation' changes were more important for older cohorts. For example, the 1950s cohort experienced a pensions 'valuation' windfall of £45,000 in the period since 2006-08, compared to an average boost of just £10,000 for those born in the 1970s.

Figure 35 also makes clear that decumulation patterns for older cohorts are stronger if the 'valuation' impact on private pension wealth is removed, an issue to which we return shortly.

Figure 35: **Overall family private pension wealth per adult including and excluding post-2006 'valuation' changes, by cohort: 2006-08–2012-14, GB**

Mean, CPIH-adjusted to 2017 prices

Notes: Nominal median income growth was just below zero over this period, so we do not separate passive changes into the element that is in line with incomes and the above-income element. See Annex 2 for full details of the method for deriving 'valuation' and 'non-valuation' changes.

Source: RF analysis of ONS, *Wealth and Assets Survey*; ONS, *Annuity rates and discount factors for all waves of the wealth and assets survey*, April 2017

52 Source: ONS, *Occupational Pension Scheme Survey*

In terms of the prospects for younger cohorts in future, the questions are similar – and similarly concerning – to those in relation to housing. First, it is fair to say that to the extent that falling annuity rates have been driven by an upward shock to longevity expectations (as opposed to the interrelated trend of falling interest rates, for example), a 'valuation' effect of this magnitude is very unlikely to be repeated. The zero lower bound on nominal interest rates also provides something of a floor to real interest rates while we maintain a 2 per cent inflation target.

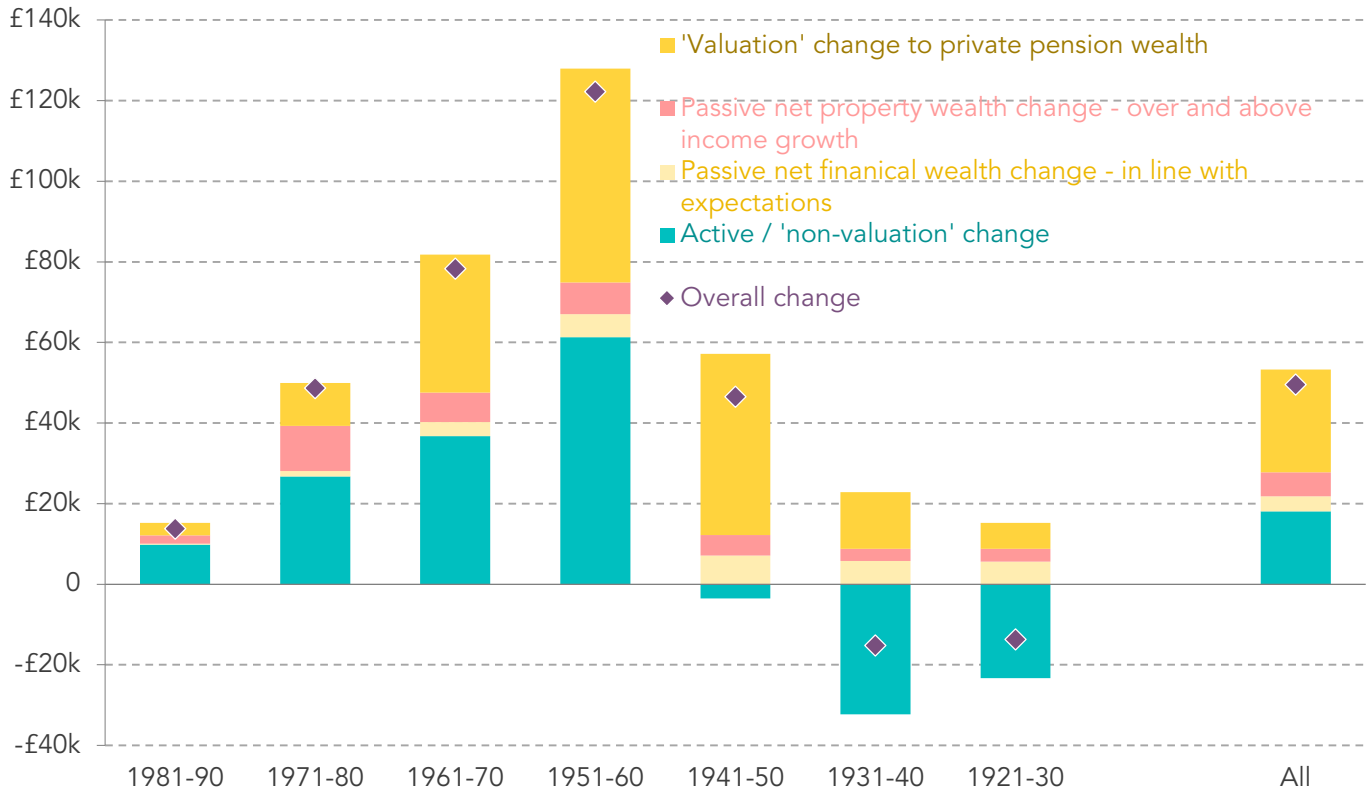
Secondly, the expectation for much lower access to DB schemes among employees in future means a greater share of cohorts will have their wealth exposed to such market risks rather than protected from them, limiting the role for any future 'valuation' changes to boost wealth relative to active saving. As with net property wealth, the story is of an effective wealth windfall disproportionately benefitting older cohorts who owned a large share of the assets the shock put upward pressure on.

In combination, passive changes have provided a large boost to total net wealth over the past decade, particularly for baby boomer cohorts

Recent trends in active and passive saving (or 'non-valuation' and 'valuation' changes) for each of the three components of wealth we described above are brought together in Figure 36. This confirms that the trends we've so far described in isolation hold in combination, with cohorts containing the baby boomers (and some others – those born between 1940 and 1960) benefitting from the largest windfall wealth gains in nominal terms.

Figure 36: **Active, passive and 'valuation' changes to family total net wealth per adult, by cohort: 2006-08–2012-14, GB**

Mean, nominal prices



Notes: No passive net property wealth changes in line with income growth are shown, as median incomes fell very slightly in nominal terms over this period. See Annex 2 for full details of the method for deriving active and passive changes and 'valuation' and 'non-valuation' changes.

Source: RF analysis of ONS, *Wealth and Assets Survey*; ONS, *UK House Price Index*; Bank of England, *Statistical Interactive Database – interest & exchange rates data*; ONS, *Annuity rates and discount factors for all waves of the wealth and assets survey*, April 2017

Note that the passive gain from above-income-growth nominal net property wealth is much smaller here (and generally slightly negative in real terms) than in our discussion above. That's because due to data limitations this combined analysis necessarily covers a much shorter period – and one which omits the house price boom of the mid-1990s to mid-2000s and instead mainly captures price falls around the financial crisis. In this instance no 'in line with income growth' passive net property wealth benchmark is visible, because median incomes actually fell slightly in nominal terms over this period.

We find that in the period since the financial crisis, the combined impact of pension 'valuation' effects and the above-income-growth housing windfall accounted for 108 per cent of the 1940s cohorts' nominal wealth gains (more than 100 per cent due to the presence of active dis-saving) and 50 per cent of the 1950s cohorts' gains. Across cohorts, these elements account for nearly two-thirds (64 per cent) of wealth gains in this period.

These cohorts that have benefited most from windfall gains are the same ones that our analysis in Section 2 suggests are faring best in terms of wealth accumulation

compared to predecessor and subsequent cohorts at the same age. Therefore it appears that wealth changes driven by largely unexpected economic shifts rather than active savings behaviour form an important part of the story on cohort wealth differences.

As we've discussed, on current trends there is little reason to believe that these passive gains will be repeated to anything like the same degree as younger cohorts age. This is because the broadly contemporaneous longevity and house price shocks that have driven changes to pensions and net property wealth look unlikely to be repeated at the same magnitude. In addition, there look set to be many fewer members of younger cohorts in possession of these assets should further house price booms or pension 'valuation' increases occur. A wealth windfall of this degree is very likely to have been a one-off.

Of course the net property wealth of older cohorts won't disappear when they die, but will instead be passed down to younger generations. We might therefore expect a different type of 'passive' saving to be the driving force behind younger cohorts' wealth accumulation as they reach prime age. But with inheritances likely to drive wealth concentrations within cohorts,[53] the implications for inequality are profound. This report does not deal with the role of inheritances and other intergenerational family wealth transfers in detail – these will be the topics of a subsequent report for the Intergenerational Commission.

Active decumulation of wealth in retirement is happening, but appears to expend only a small proportion of wealth holdings

Much of this section has focused on the role of active behaviours in wealth *accumulation*. But, by tracking families longitudinally and removing the role of 'passive'- and 'valuation'-driven wealth boosts, our approach also shines a light on *decumulation* behaviours.

We find that removing windfall wealth gains and compositional effects within cohorts shows clearer evidence of wealth decumulation than our analysis in Section 2 did. For example, the 1930s cohort ran down around 40 per cent of their real-terms wealth during the period between 2006-08 and 2012-14, when they were mainly in their 70s. Previous analysis has shown that it is the wealthier members of different age groups that tend to actively dis-save most in later life.[54] This evidence supports the idea that, while decumulation across cohorts is not as rapid as we might expect if wealth's only purpose were to provide an income in retirement, it is an important feature of what wealth does for families.

So what else might be going on here to explain the lack of greater active wealth decumulation? We speculate that there may be multiple factors at play. First, it's possible that for various historical or structural reasons older cohorts have 'over-accumulated' wealth (even abstracting from passive shifts which have acted to inflate accumulation patterns, as our analysis does), such that they have far more than they need for consumption purposes. Indeed, previous research has shown that the wealth of the 1940s cohort in particular was sub-optimally high as they approached retirement from a lifetime living standards perspective, with some of these assets likely to have been more use earlier in life.[55]

53 A Hood & R Joyce, *Inheritances and inequality across and within generations*, Institute for Fiscal Studies, January 2017

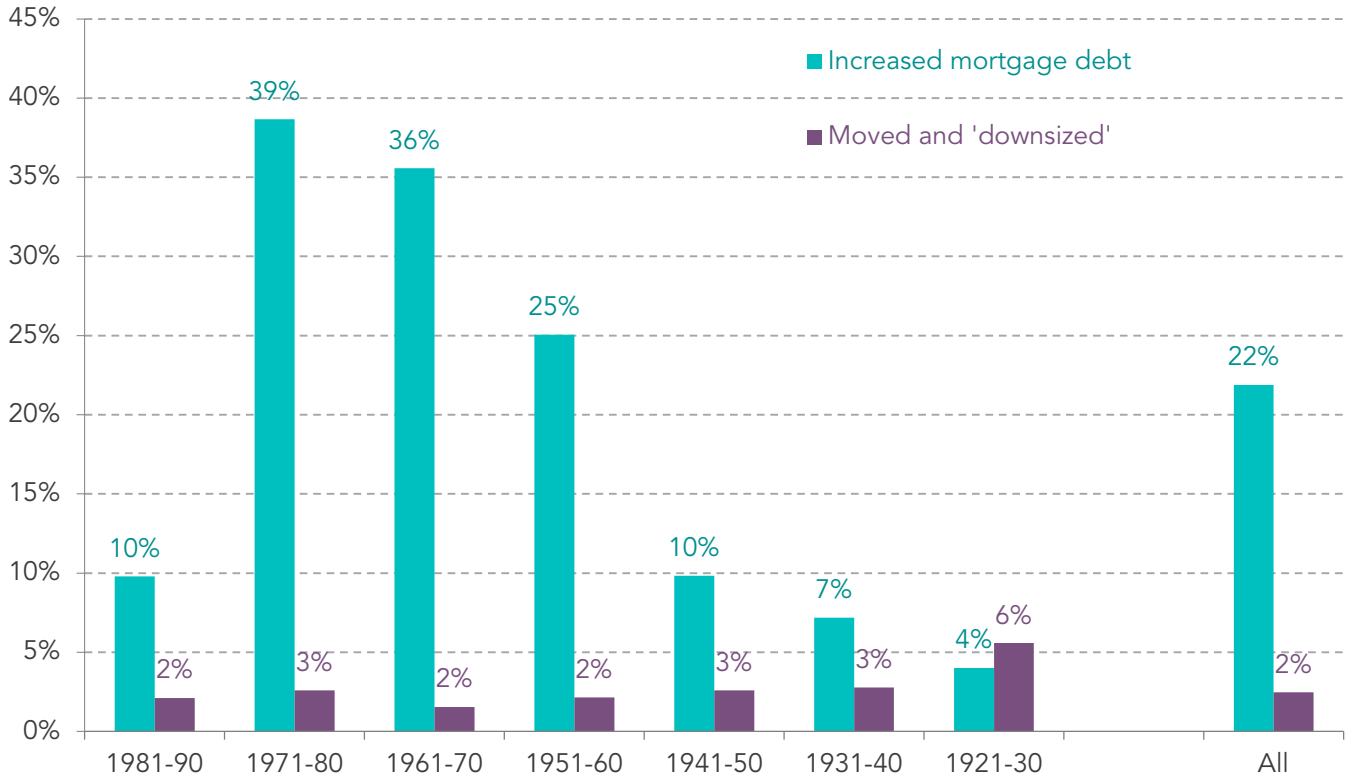
54 E Karagiannaki & J Hills, 'Inheritance, Transfers, and the Distribution of Wealth, in J Hills et al., *Wealth in the UK: Distribution, Accumulation, and Policy*, Oxford University Press, 2013

55 R Crawford & C O'Dea, *Retirement sorted? The adequacy and optimality of wealth among the near-retired*, Institute for Fiscal Studies, September 2014

Second, reflecting on the multiple purposes wealth serves within multi-generational families discussed in Section 1, it's probably the case that much of older cohorts' wealth is being reserved for things other than retirement income. These might include the relative economic security of living in an owner-occupied home and so being protected against housing cost shocks, or a desire to pass on wealth to descendants.

Third, given the structural and practical barriers to releasing value from property, it's possible that some older people that want to divert this wealth to consumption find themselves unable to do so. As Figure 37 shows, dis-saving behaviours around net property wealth are extremely rare among older cohorts.

Figure 37: **Proportion of adults in families with active changes in net property wealth consistent with downsizing or increasing mortgage debt, by cohort: 2006-08–2012-14, GB**



Notes: Sample consists of stable families present in all four waves of the survey only. Families that increased mortgage debt are those in which mortgage debt went up between any two waves, and which had some property wealth in the first of those waves (i.e. excluding first time buyers taking on mortgage debt). Families that moved and downsized are those that moved house between any two waves, and whose gross main property wealth in the second of those two waves was less than in the first. See Annex 2 for full details of the method for deriving active and passive changes.

Source: RF analysis of ONS, *Wealth and Assets Survey*; ONS, *UK House Price Index*

It's very likely that all of these decumulation headwinds play a role for certain families at certain points in time. Given that they each reflect sub-optimal outcomes or competing demands on a resource, patterns of decumulation are a fruitful area for policy thinking, and will be returned to in future reports for the Intergenerational Commission.

The distinction between 'active' and 'passive' asset-building provides an important perspective on policy responses to the wealth accumulation challenge

In this section we have lifted the lid on how the cohort wealth patterns discussed in Section 3 have come to pass. In particular, we have identified the role that economic trends that would reasonably be considered beyond the expectations of those holding wealth in property and DB pensions have played in delivering a windfall to possessors of these assets.

Although there were benefits to all cohorts who were adults at the time of the house price boom and in the period of falling annuity rates, this windfall appears to have come at the right time for cohorts containing the baby boomers (and some others – those born between 1940 and 1960) in particular. And it looks unlikely to be repeated to anything like the same extent for younger cohorts as they age. This is both because the extent to which such economic shifts will bite to the same degree in future is doubtful, and because fewer people in younger cohorts will be in possession of such assets in the first place. And of course, it's possible that house prices and interest rates could go in the other direction altogether, as house prices did for a period after the financial crisis for example. This would bring an end to passive boosts to wealth across cohorts, and could potentially cancel out some of the windfalls previously experienced by older cohorts in particular.

The role of active behaviours around wealth should not be forgotten within this striking story of windfall gains. In particular, our analysis identifies stronger decumulation trends than are found in standard analysis that doesn't separate out passive effects. Nonetheless, it looks like decumulation remains a complicated business, with potential practical barriers to running down certain kinds of wealth, and assets often earmarked for purposes other than just a retirement income.

So the feed-through from wealth to lifetime living standards – while undoubtedly strong – is complex, something future policy thinking must take into consideration. It is what the analysis in this report tells us about the broad parameters for such policy thinking that we turn to in our concluding section.

Section 5

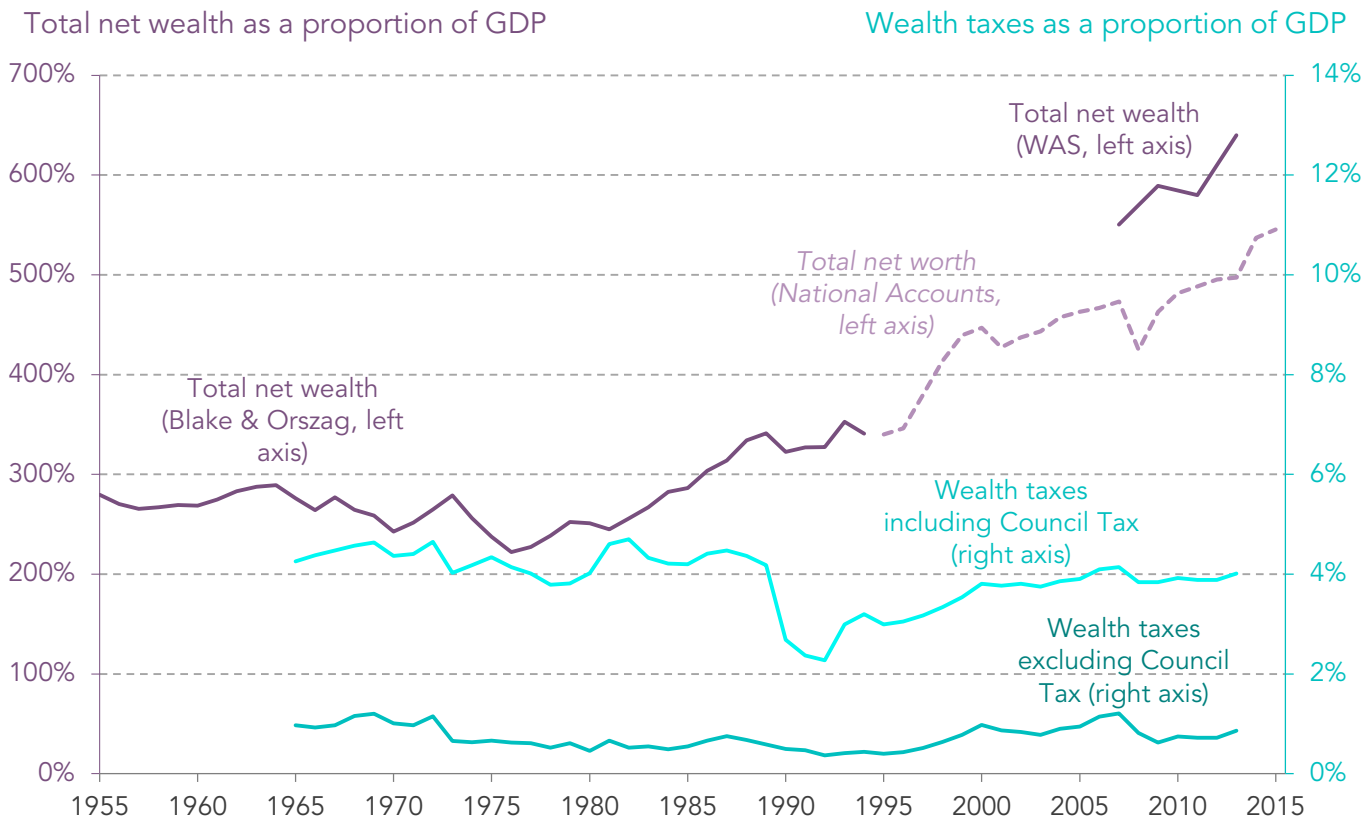
Concluding remarks: the implications of this analysis for policy

The analysis in this report provides an up-to-date and comprehensive picture of wealth in Britain today; its distribution across society and in particular across and within different birth cohorts; and the combination of active accumulation and wider economic shifts that have got us to this position. In this final section we briefly reflect on what our findings indicate for those interested in policy prescriptions related to wealth and intergenerational fairness.

The growing importance of wealth in society means how we raise revenue from it is an issue that can no longer be ignored

The first and most fundamental lesson from the analysis contained in this report is that the sheer growth in the size of aggregate – and average – wealth over a long and shorter timeframe is something that cannot be ignored. This is particularly true from the perspective of raising revenues for the Exchequer. However, as Figure 38 shows, this lesson appears to have been missed by successive governments in recent decades. The chart reproduces the analysis of aggregate wealth in relation to the size of the economy from Figure 5 in Section 2, but this time also shows the size of revenues from taxes generally thought of as relating to wealth.

Figure 38: **Aggregate wealth and wealth taxation as percentages of GDP: 1955-2015, GB/UK**



Notes: Wealth measures cover net property wealth, net financial wealth, private pension wealth and physical wealth. Blake & Orszag and National Accounts measures, and tax and GDP data, cover the UK; the WAS measure covers Great Britain.

Source: D Blake & J Orszag, 'Annual estimates of personal wealth holdings in the United Kingdom since 1948', *Applied Financial Economics 9, 1999*; ONS, *UK National Accounts;* ONS, *Wealth and Assets Survey*; OECD.Stat

We show wealth taxation including and excluding Council Tax revenue. This is because although Council Tax acts on property and is therefore sometimes wrongly described as a wealth tax, its lack of differentiation in rates; lack of responsiveness to changes in property values over the past 25 years; rebates for those with low incomes and its impact on renters mean it doesn't really function like one at all.[56] Given Council Tax is really more like a particularly regressive version of the local income taxes levied in many other countries, this adjustment also corrects for the inaccurate perception that we are particularly zealous taxers of wealth in the UK when compared to other developed economies.[57]

What's immediately clear from Figure 38 is that taxation has failed to keep up with the meteoric rise in the size of the UK's wealth, something our more-often-discussed taxes on income and consumption tend to do by design. In a large part this is because wealth taxation in Britain is not sensitive to changes in value, such as those resulting from wider economic shifts like the house price boom that our analysis in Section 4 described.

56 A Hern, 'A council tax isn't a wealth tax', *New Statesman*, 12 March 2013

57 Removing Council Tax brings the UK's wealth taxes as a proportion of GDP roughly in line with the OECD average.

We believe that it is difficult to justify continuing on this path. Of course, optimising wealth taxation is difficult, with a range of concerns around efficiency, equity and how revenues can be maximised. It is beyond the remit of this report to present detailed recommendations in this area, but we believe that it is possible to do a better job than we do currently on all these fronts. This was also the conclusion of the prominent Mirrlees Review of the UK tax system.[58]

Others have already made detailed recommendations on how the UK's taxation of wealth could be improved. Mirrlees recommended the application of income tax rates to super-normal returns from savings and investments (rather than the mesh of different rates and exemptions we currently have); a lifetime transfer tax to replace the current partial system of inheritance and gift taxes; and a role for the taxation of land value in some instances. Other ideas often proposed include substantial reform and more regular revaluation of Council Tax rates; the levy of some form of Capital Gains Tax on primary residences; and changes to the taxation of pension pots. This list is by no means exhaustive or instructive of what should actually be done. A future report for the Intergenerational Commission will consider in detail possible changes to the UK tax system that would provide a firm basis for a renewed intergenerational contract.

The cohorts that have benefited most from wealth windfalls are those that will rely most on the resources of the greying state

Beneath the need for more of a focus on revenue-raising from wealth, our analysis is instructive in terms of where in society such revenue-raising would be most appropriately targeted.

In particular, as previous analysis for the Intergenerational Commission has discussed, the wider context for this debate is that with the large baby boomer cohorts now moving into retirement, the public costs of our ageing society are rising.[59] At the same time, the share of the population that is of working age – when contributions to the state via the current tax system are highest – is shrinking. In addition, we've noted that living standards are already under pressure for many younger working-age people – with earnings and incomes for these cohorts falling behind their predecessors at the same age.

Finally, it is clear that the cohorts who will be the main recipients of the health and care services and pensions that will drive up public spending over the coming years are the same ones appear to have fared best in relation to wealth over recent decades. In particular, those born in the middle of the last century are generally outperforming the groups both before and after them at the same age, and were the main beneficiaries of the windfall wealth gains from economic shifts we described in Section 4.

58 J Mirrlees et al., *Tax by Design*, Oxford University Press, September 2011

59 D Finch, *Live long and prosper: Demographic trends and their implications for living standards*, Resolution Foundation, January 2017

These are trends that policy makers looking to ensure the sustainability of the public services these cohorts will disproportionately use cannot ignore. This is something the Barker Commission acknowledged in its assessment of where the higher revenues for our future health and care system might be found.[60] How this can be done politically, practically, and equitably is not an easy question to answer. As the 2017 General Election furore over the use of housing assets to pay for care in later life neatly illustrated, policies in this area also need to take into account wider considerations including risk-pooling within cohorts. Again it is beyond the remit of this paper to detail recommendations, but future reports for the Intergenerational Commission will discuss taxation and other funding and spending options for meeting the needs of our ageing society in an intergenerationally fair way.

But wealth is also extremely unequal within cohorts, implying that a targeted approach is required

While there is a strong case for a focus on the very different experiences of different cohorts when thinking about how to capture more of wealth's meteoric growth and meet the needs of our ageing population, a blanket approach would be severely misguided. This is because, as our analysis has shown, wealth is extremely unequally distributed both across society as a whole and within even those birth cohorts that appear to be in the strongest wealth position.

In particular, the least wealthy within some baby boomer cohorts have fallen behind their counterparts in predecessor cohorts even as their wealthier peers have continued to surge ahead. And many of them won't have been in a position to benefit from the windfall wealth gains described in Section 4.

As such, any policy focus on wealth and its uneven distribution and patterns of accumulation *across* cohorts must be extremely sensitive to inequalities *within* these cohorts. In other words, a progressive approach is required both across and within cohorts. Indeed, the huge asset disparities across society as a whole as well as within generations – much higher than income disparities – mark wealth out as a prominent concern for anyone who cares about the progressivity of our welfare state in general. Given lively debates about progressive taxation around the 2017 General Election in particular, it's surprising that wealth has featured so little.

Just as important as the asset holdings of older generations is the wealth accumulation of younger ones

In addition to a focus on those cohorts who appear to have reaped the benefits of wider wealth trends most, and the differences within those cohorts, policy must not be blind to how those coming along behind them can be helped to catch up. (Or, if older cohorts have in fact over-accumulated to a sub-optimal degree,[61] at least achieve sustainable levels of wealth accumulation.)

In particular, to the extent wealth remains a central determinant of lifetime living standards, a greater revenue-raising focus on assets needs to avoid dis-incentivising

60 For example, in its suggestion of higher rates of National Insurance for older workers and those working above the State Pension age. See: K Barker, *A new settlement for health and social care: Final report of the Commission on the Future of Health and Social Care in England*, The King's Fund, September 2014

61 R Crawford & C O'Dea, *Retirement sorted? The adequacy and optimality of wealth among the near-retired*, Institute for Fiscal Studies, September 2014

their accumulation. At least conceptually, there is a clear benefit to targeting the windfall elements of wealth accumulation described in the previous section – windfalls unlikely to be repeated on the same scale for younger and future cohorts – as opposed to active savings behaviour.

On the accumulation front, it's welcome that policies aimed at helping younger generations to build up wealth now are already high on the political agenda. Each of the main parties made promising commitments on housing in their manifestos for the 2017 General Election.[62] In addition, the next phase of auto-enrolment will be closely watched towards the end of the decade. And the introduction of the Lifetime ISA – which provides incentives targeted at younger families to save for either a house deposit or towards retirement – cuts across these areas. These crucial questions – how successive generations build up property wealth and pensions – will be addressed in detail in subsequent papers published as part of the Intergenerational Commission.

The transfer of wealth down the generations is the inequality challenge of the future

Finally, beyond raising the resources to meet the needs of an ageing society in the coming decades in a fair way across and within cohorts, how wealth is redistributed across generations is perhaps the central question for generational living standards in future.

Most assets do not disappear when those in possession of them die – they are likely to be passed down to children and grandchildren. While the desire to help descendants is natural, the growing role inheritances play in our society and the concentration of assets in certain parts of it means they risk driving intra-generational inequalities and overall social inequalities upwards.[63]

The role for policy in determining how assets cascade down generations – and the 'collective' public assets each generation leaves to the next – is therefore a central part of current intergenerational debates.

In sum then, while we don't in this report set out policy prescriptions for addressing Britain's wealth divides and their future implications, we believe we have presented a compelling case for greater attention to be focused in this area, and some clear parameters for that focus. These issues will be picked up in many of the future outputs for the Intergenerational Commission.

62 L Judge, 'Looking for house and home', *Resolution Foundation blog*, 25 May 2017

63 A Hood & R Joyce, *Inheritances and inequality across and within generations*, Institute for Fiscal Studies, January 2017

Section 6

Annex 1: Supplementary analysis of cohort wealth trends

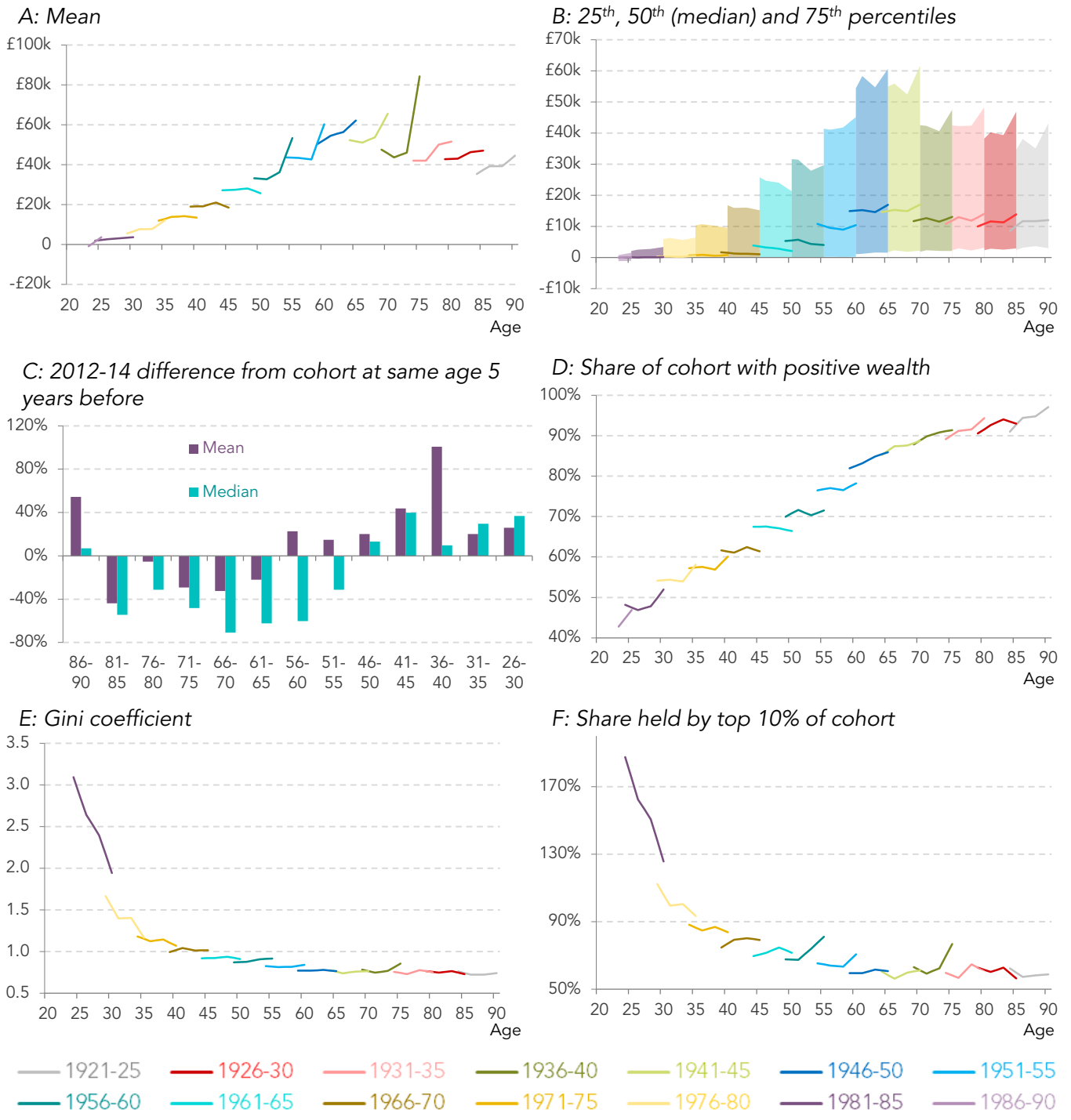
In this annex we provide a comprehensive breakdown of cohort wealth trends on a range of measures, to complement the discussion in Section 3.

The following four figures present a range of statistics for five-year birth cohorts looking at each of the three components of wealth, and at net wealth in total. In each of them:

- Panel A shows cohort trends in family wealth per adult at the mean.
- Panel B shows cohort trends at the median, and the 25th and 75th percentiles.
- Panel C shows the real-terms position of each cohort in 2012-14 compared to the cohort that was the same age five years previously, at both the mean and the median. Negative changes mean a worsening of the cohort's wealth position relative to predecessors; positive changes represent an improvement on predecessors at the same age.
- Panel D shows the share of adults in the cohort living in families with positive wealth.
- Panel E shows the Gini coefficient for family wealth per adult.
- Panel F shows the share of wealth held by the one-in-ten wealthiest adults in each cohort.

Figure 39: **Summary of family net financial wealth per adult, by cohort: 2006-08–2012-14, GB**

CPIH-adjusted to 2017 prices

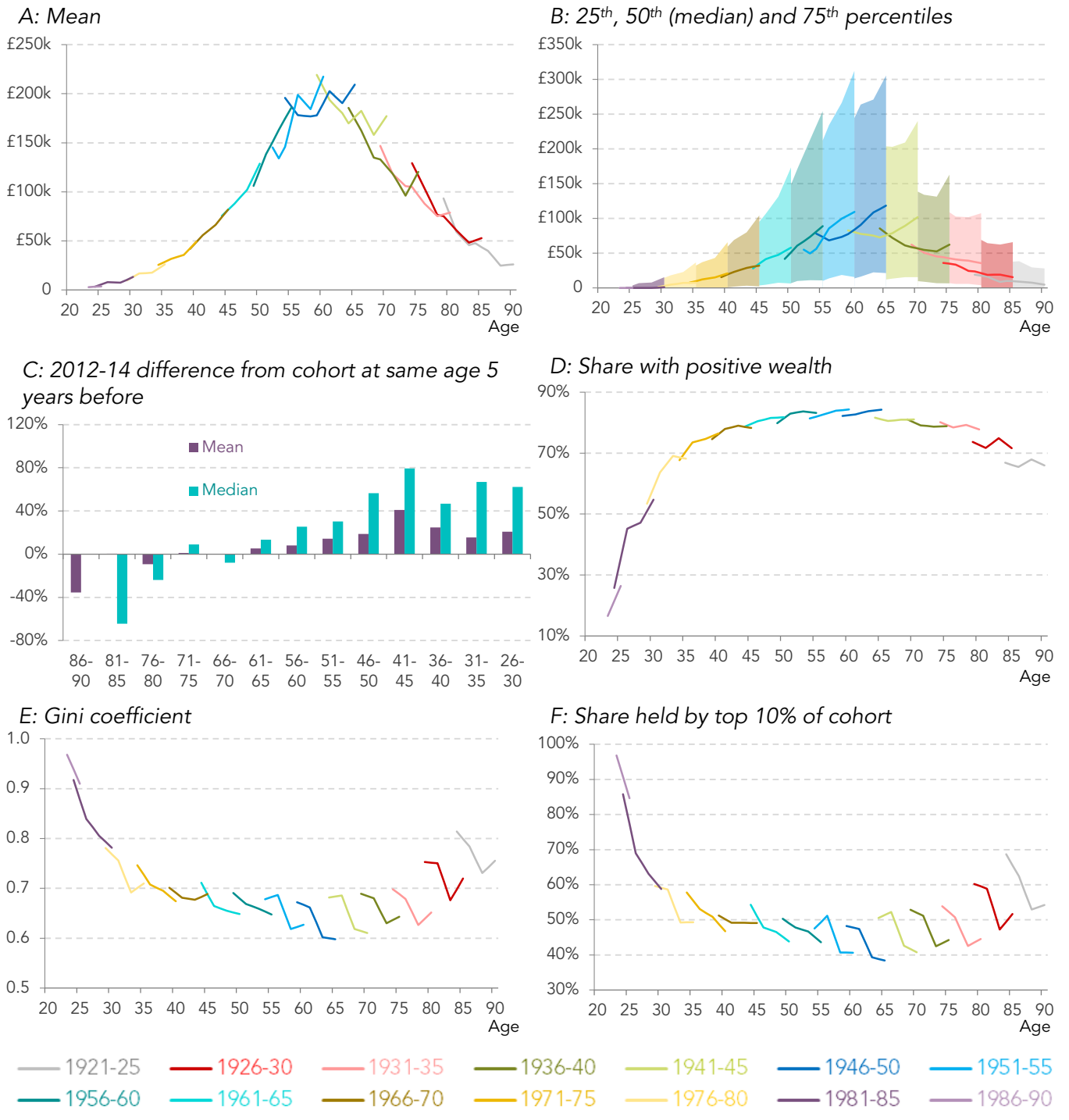


Notes: Because net financial wealth can be negative, it's possible for a subset of the population to hold more than 100 per cent, and for the Gini coefficient to be greater than 1.

Source: RF analysis of ONS, *Wealth and Assets Survey*

Figure 40: **Summary of family private pension wealth per adult, by cohort: 2002-03–2012-14, GB**

CPIH-adjusted to 2017 prices

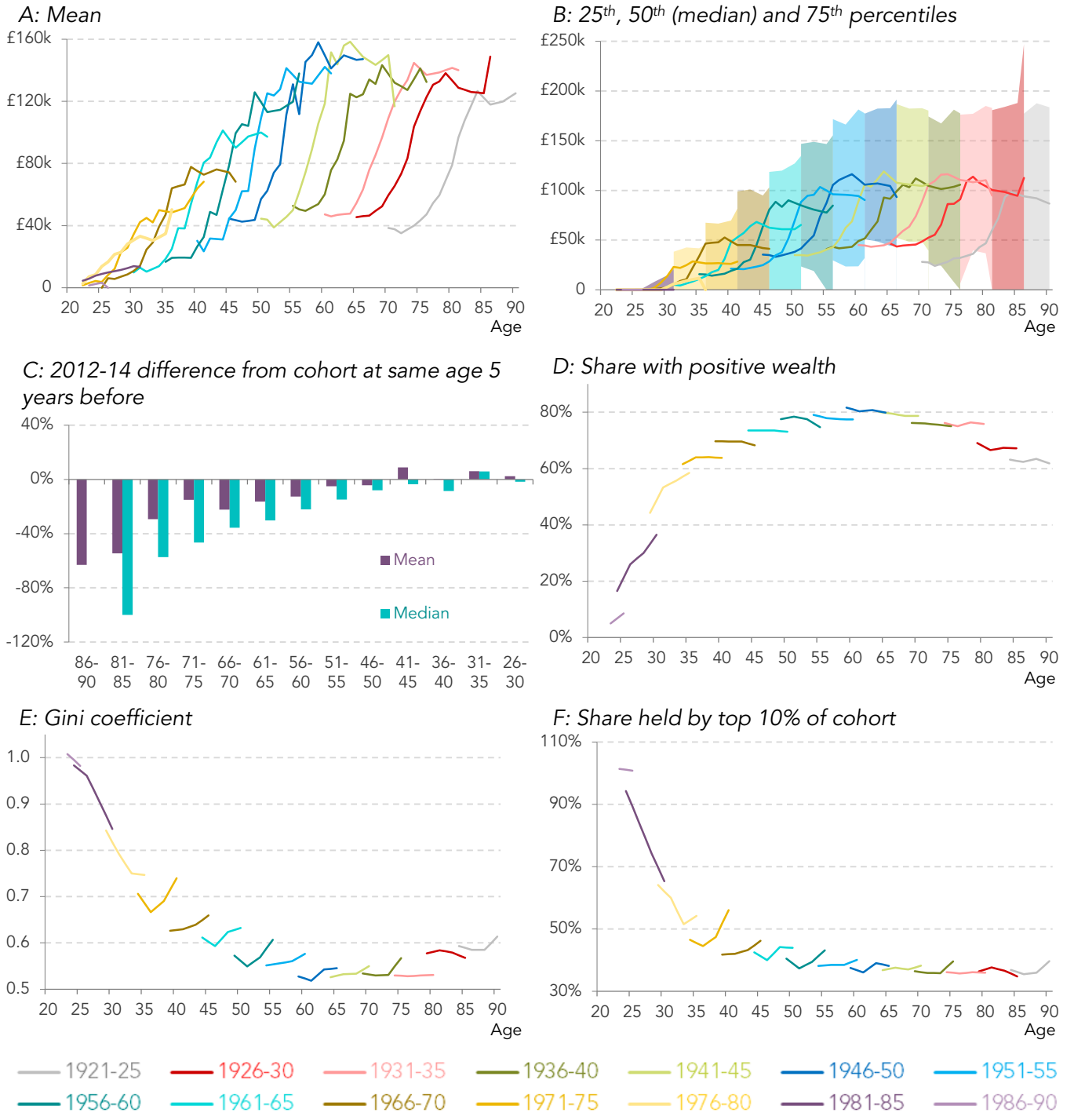


Notes: Cohort trends in private pension wealth in England for cohorts aged 50 and over in the English Longitudinal Study of Ageing are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. It should be noted that the methodology for calculating private pension wealth and the geography covered are somewhat different in these two studies; however cohort estimates are relatively consistent during the period where the data overlap.

Source: RF analysis of UCL et al., *English Longitudinal Study of Ageing*; ONS, *Wealth and Assets Survey*

Figure 41: **Summary of family net property wealth per adult, by cohort: 1993–2015, GB**

CPIH-adjusted to 2017 prices

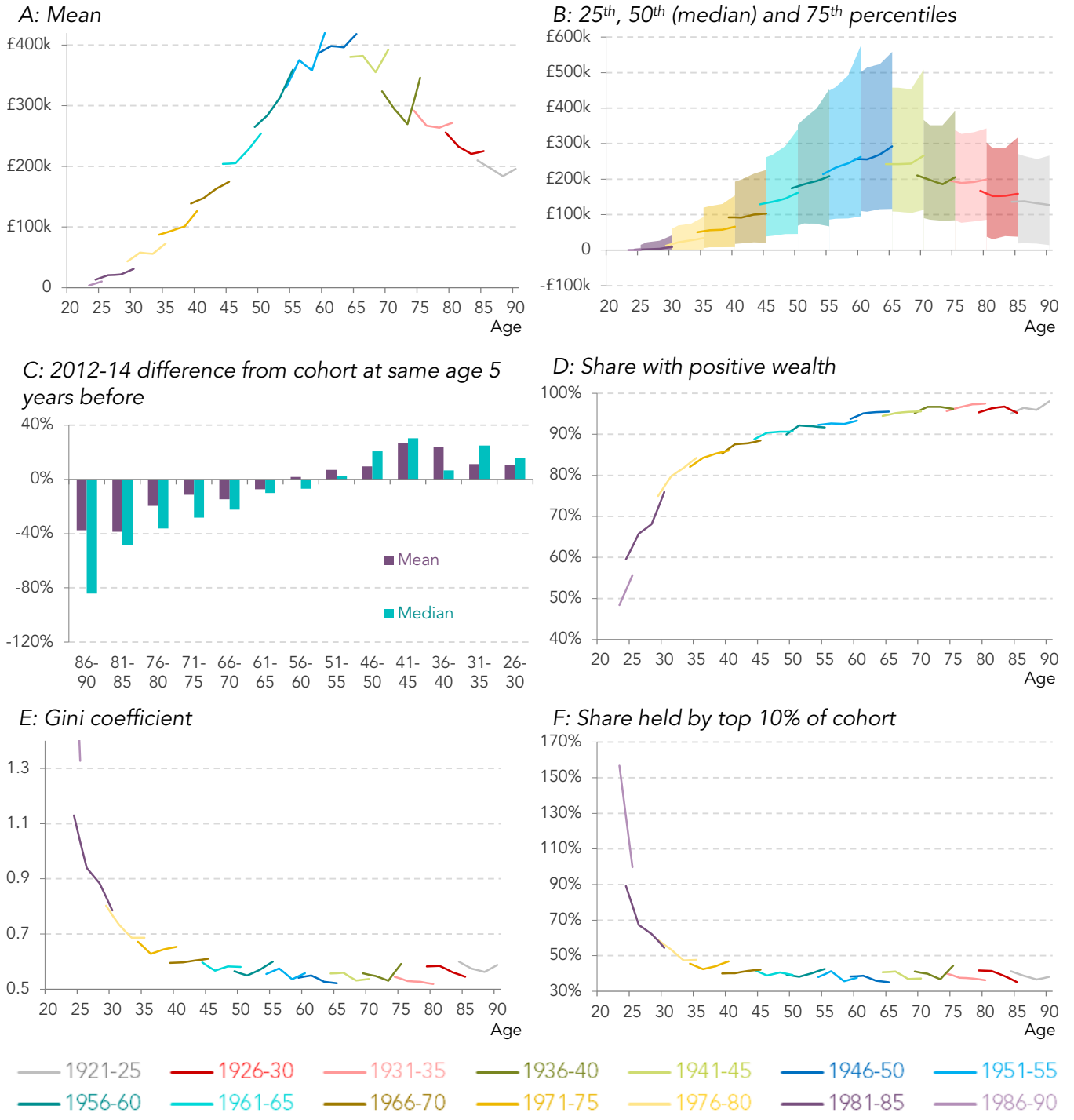


Notes: Because net property wealth can be negative, it's possible for a subset of the population to hold more than 100 per cent, and for the Gini coefficient to be greater than 1. Cohort trends in net property wealth in the British Household Panel Survey / Understanding Society are used to extend trends observed in the Wealth and Assets Survey backwards before 2006 and after 2014. Cohort trends are relatively consistent during the period where the data overlap.

Source: RF analysis of ISER, *British Household Panel Survey / Understanding Society*; ONS, *Wealth and Assets Survey*

Figure 42: **Summary of family total net wealth per adult, by cohort: 2006-08–2012-14, GB**

CPIH-adjusted to 2017 prices



Notes: Excludes physical wealth. Because total net wealth can be negative, it's possible for a subset of the population to hold more than 100 per cent, and for the Gini coefficient to be greater than 1.

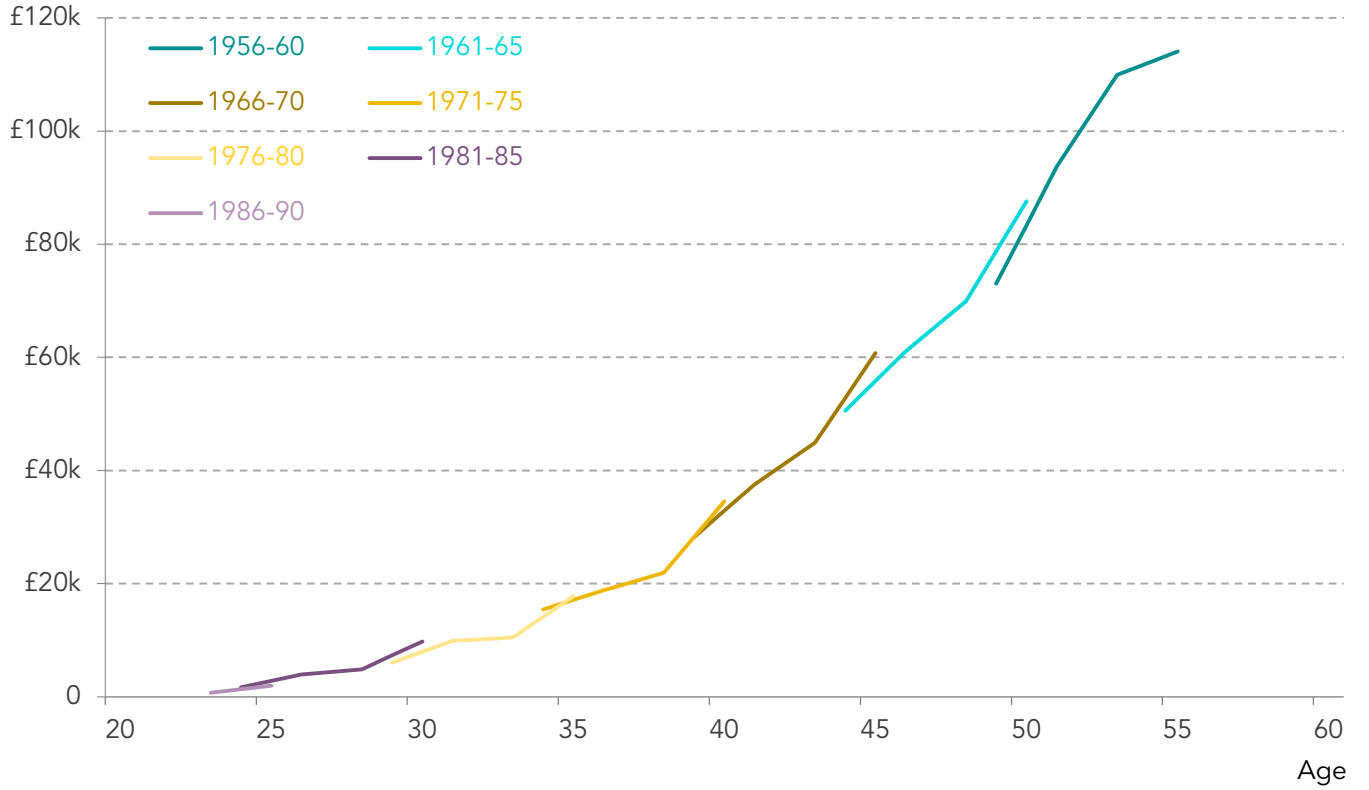
Source: RF analysis of ONS, *Wealth and Assets Survey*

The following figures provide further supplementary analysis to the discussion in Section 3.

Figure 43 shows the mean level of defined benefit pension wealth in each cohort at each age. As discussed in earlier sections of this report, the strong upticks more recently are in the main driven by the valuation of DB pension entitlements in relation to prevailing annuity and discount rates on the market at the time.

Figure 43: **Mean family defined benefit pension wealth per adult, by cohort: 2006-08–2012-14, GB**

CPIH-adjusted to 2017 prices



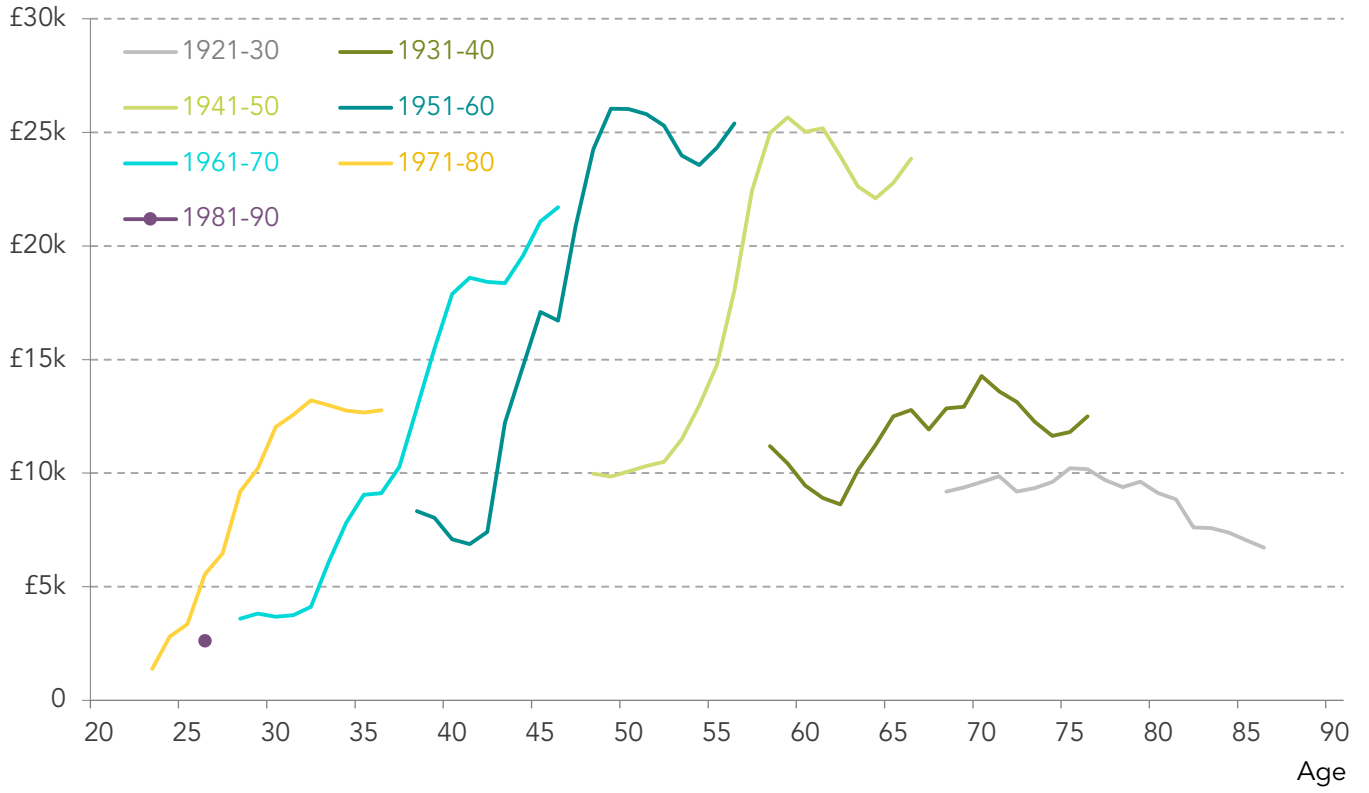
Notes: Defined benefit pension wealth covers current and retained DB pensions. It is shown for cohorts of working age only because it is not possible to identify whether pensions in payment are drawn from defined benefit or other sources.

Source: RF analysis of ONS, *Wealth and Assets Survey*

Figure 44 shows the average gross wealth in properties other than the main residence for each cohort. It shows that all cohorts apart from the older millennials born in the 1980s have exceeded their predecessors at the same age in terms of levels of other property wealth, the 1940s and 1950s cohorts appearing to have fared particularly well.

Figure 44: **Mean family gross second/other property wealth per adult, by cohort: 1993–2012-14, GB**

CPIH-adjusted to 2017 prices



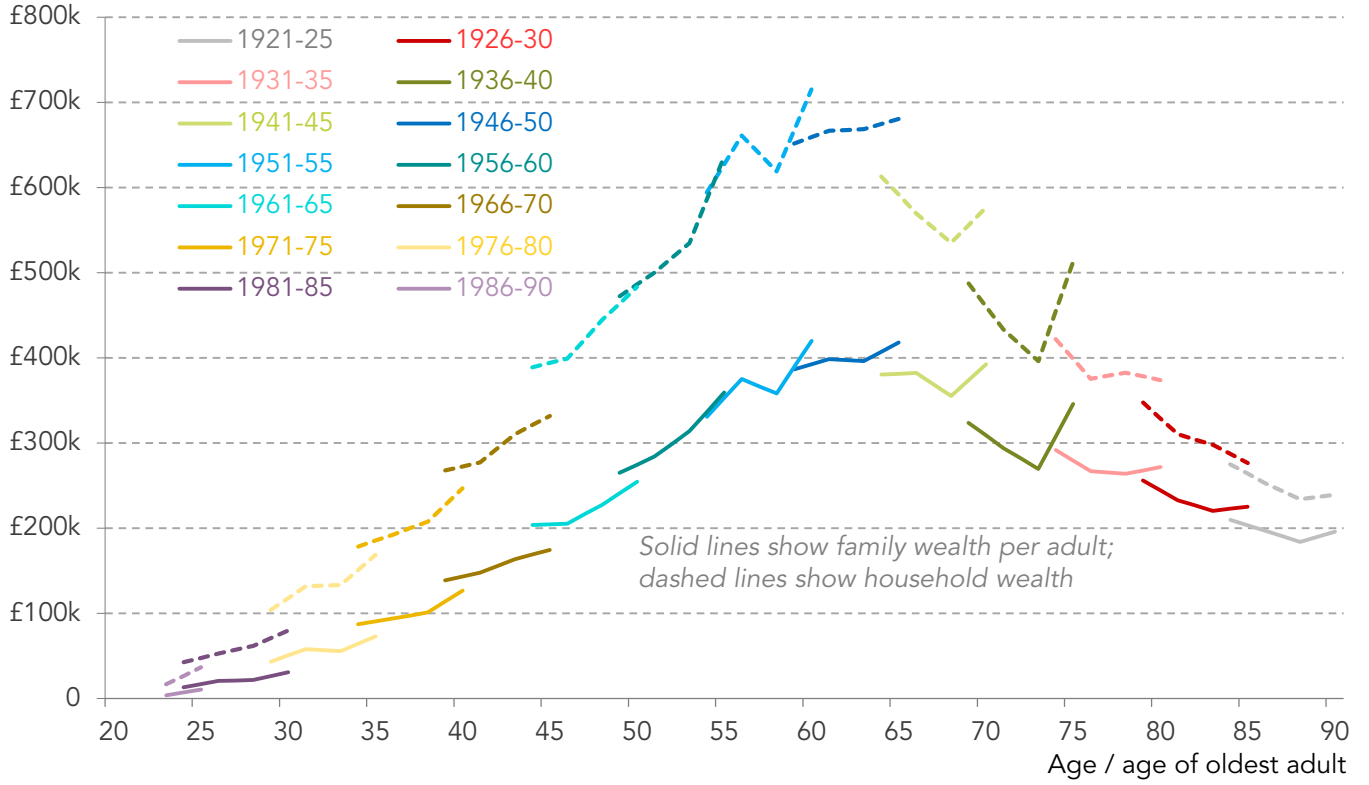
Notes: Data are smoothed using a three-year rolling average. Cohort trends in net property wealth in the British Household Panel Survey are used to extend trends observed in the Wealth and Assets Survey backwards before 2006. Cohort trends are relatively consistent during the period where the data overlap.

Source: RF analysis of ISER, *British Household Panel Survey*; ONS, *Wealth and Assets Survey*

Finally, Figure 45 serves as a reminder of the different picture of life-cycle wealth we get depending on the unit of analysis chosen, with much stronger life-cycle trends in household wealth than our preferred measure of family-wealth-per-adult. However, the story on cohort differences is roughly the same whichever measure is used.

Figure 45: **Mean total net wealth, by cohort and unit of analysis: 2006-08–2012-14, GB**

CPIH-adjusted to 2017 prices



Notes: Excludes physical wealth.

Source: RF analysis of ONS, *Wealth and Assets Survey*

Annex 2: Data sources and methods

In this annex we set out the data used in our analysis and provide a brief description of our methods.

Data used in this analysis

The most comprehensive data available for the analysis of wealth trends is the ***Wealth and Assets Survey*** (WAS) conducted by the Office for National Statistics. This is a longitudinal survey of households in Great Britain specifically designed for the purpose of accurately capturing wealth, including oversampling of wealthy households. As such, it is our preferred source for analysing wealth overall, and across and within cohorts. However, this survey only began in 2006-08, and the latest data is for 2012-14, so our ability to measure change over time is limited. For this reason, we use other datasets to extend trends observed in WAS backwards and forwards. These are:

- The ***British Household Panel Survey*** **(BHPS)** and ***Understanding Society***, covering the period 1993–2014-15.[64] These longitudinal surveys are conducted by the Institute for Social and Economic Research at the University of Essex. Sample boosts have been added at various points, but the original BHPS sample was designed to be representative of households in Great Britain, and was carried through into Understanding Society (which replaced and extended the BHPS from 2009-10 onwards) from wave 2. Because of this, our analysis only covers those who have entered the panel via the original sample (which includes children and partners of original sample members). We use this data to index trends in net property wealth observed in WAS back to 1993 and forward to 2014-15. Some information on net financial wealth was collected in the 1995, 2000, 2005 and 2012-13 surveys, however concerns about its reliability and consistency over time for certain cohorts mean we do not use these to extend our analysis of financial wealth. However we do present some high-level trends for net property and financial wealth combined in Sections 2 and 3.

- The **English Longitudinal Study of Ageing**, covering the period 2002-03–2014-15. This is a longitudinal survey of households containing adults aged 50 and over which covers England. It is conducted by a research consortium led by UCL. We use this data to index trends in private pension wealth observed in WAS for older cohorts back to 2002-03. It should be noted that the methodology for valuing DB pension wealth is slightly different in this survey to the approach in WAS.[65] However, trends are fairly consistent during the period in which the data overlap, so this approach is felt to be an appropriate approximation.

Details of our methodology for analysing wealth trends overall and for different birth cohorts

Our preferred unit of analysis in this report is families ('benefit units'), meaning single people or couples and any dependent children living with them. As the discussion in Section 2 sets out, we think this is the most appropriate unit at which to aggregate wealth. This is because capturing wealth at the individual level doesn't reflect how

64 The 1991 and 1992 surveys aren't used because they did not collect sufficient information on property wealth.

65 For information on this method, see: R Crawford, *ELSA Pension Wealth Derived Variables (Waves 2 to 5): Methodology*, Institute for Fiscal Studies, November 2012

resources are often shared within families. And capturing wealth at the household level (households can contain multiple benefit units) masks trends at certain ages, in particular when young adults live with their parents and when multiple singles or couples cohabit. This is particularly important for our analysis of wealth trends across cohorts. It means, for example, that a 25 year old living with her parents in 2012-14 has her wealth (or lack thereof) accounted for in the 1986-90 birth cohort, rather than her assets being grouped with those of her parents in their older cohort(s).

To account for the greater resources of two-adult families, we present trends in family wealth on a per-adult basis.

Our analysis covers the following components of wealth:

- **Net financial wealth**, which includes the value of savings, investments and money held in current accounts, less any unsecured debt.
- **Net property wealth**, which includes the value of owned main residences and any other property owned by the adults in the family, less any mortgage debt.
- **Private pension wealth**, which includes the current value of personal and DC pension funds, plus the current value of the future income stream provided by DB pensions and pensions in payment. What this means is that DB pensions and pensions in payment are valued according to the size of the DC pot required to purchase that income stream on the market today.[66] As such, they are sensitive to prevailing annuity and discount rates. We explore the effects of this approach in detail in Section 4.

In the main, we do not include physical wealth in our analysis, because of concerns about the way it is valued: respondents are asked for the replacement value of physical assets, which is generally much higher than their marketable value.[67] In order to avoid compositional effects on trends in individual families' wealth over time, we also exclude any (mainly financial) wealth owned by dependent children. However, our introductory description of aggregate wealth at the beginning of Section 2 includes both of these elements.

For the 'cross-sectional' analysis in Sections 2 and 3, we weight results from all surveys using available cross-sectional household weights. The exception is the BHPS / Understanding Society, where attrition over time appears to have biased the sample towards home-owning families compared to family home ownership estimates from other household surveys.[68] This would drive overestimates of the growth in family net property wealth in particular. For this reason, we reweight the published household weights using family housing tenure statistics from the ONS's *Quarterly Labour Force Survey*.

In Section 4 we exploit the longitudinal nature of our data. In particular, we assess how the assets of 'stable' families (benefit units in which the composition of the adults doesn't change due to coupling, separation or death) grow or decline between two

66 For more information of the valuation of these pensions in WAS, see: ONS, *Wealth in Great Britain Wave 4: 2012 to 2014*, December 2015

67 For more information, see: R Crawford, D Innes & C O'Dea, *The Evolution of Wealth in Great Britain: 2006-08 to 2010-12*, Institute for Fiscal Studies, November 2015

68 L Judge & A Corlett, 'Only half of families own their own home – how do the other half live?', *Resolution Foundation blog*, 27 December 2016

periods of time. To minimise the compositional distortions associated with focusing only on 'stable' families, we create successive short-panel longitudinal samples of each pair of adjacent waves of survey data.

In addition, the weights we use in Section 4 are adjusted to account for attrition or compositional changes to families excluding them from each of our short-panel samples. We do this by running probit regressions on whether a family in the cross-sectional sample in any wave appears in the sample in the following wave (and therefore in the relevant longitudinal short-panel) on a range of characteristics including wealth quintile, age, employment status and household type. We adjust published household weights by multiplying them by the inverse of the predicted values from these regressions.[69] This ensures our longitudinal analysis remains representative of the population of Great Britain.

We almost always express wealth and wealth changes in real terms, with values uprated using CPIH to prices in the first quarter of 2017.

Estimating 'active' and 'passive' saving

Our approach to distinguishing between active and passive saving in Section 4 draws heavily on previous analysis by the Institute for Fiscal Studies in *The Evolution of Wealth in Great Britain: 2006-08–2010-12*.[70] We conduct this analysis using WAS and BHPS (for net property wealth only) using the successive short-panel (two-wave) samples described above.

Our approach to decomposing changes in family wealth per adult into their active and passive elements is described below.

Net property wealth

For gross property wealth, a change in wealth can arise from three sources: house price growth that would have occurred if a family maintained the same property assets; price changes from improvements; and the net change from buying or selling any property. The first of these can be thought of as passive, the second and third active.

BHPS doesn't contain any information on property improvements, and while WAS doesn't contain comprehensive information either it does identify families that have extended their main residence. For these 'improver' families (identifiable in WAS only, meaning we are likely to understate active saving in some periods); for any families that have moved; and for other properties beyond the main residence, we estimate passive saving using published house price indices. We take gross property wealth in the first wave and index it forwards according to the average change in ONS *House Price Indices* at the regional level.[71] Active saving in gross property wealth for these groups is therefore the difference between the reported change in gross property wealth and this estimate of the passive element.

69 We base this approach on that taken by the Institute for Fiscal Studies in: R Crawford, D Innes & C O'Dea, *The Evolution of Wealth in Great Britain: 2006-08 to 2010-12*, Institute for Fiscal Studies, November 2015

70 R Crawford, D Innes & C O'Dea, *The Evolution of Wealth in Great Britain 2006-08–2010-12*, Institute for Fiscal Studies, November 2015

71 We don't know where other properties are located, so national house price indices are used to estimate passive gains in this type of property wealth.

National trends in the index of house prices we use for these calculations (and trends in predecessor indices) are shown in Figure 27.

Conceptually, it would be appropriate to apply the same method to estimate the passive saving of home-owning families in both waves that don't move house or report extending their main residence. When averaged across groups, the residual change in gross main property wealth over and above the estimated passive element should represent the value of any other property improvements not captured in the data. However, due to apparent misperceptions and temporal lags regarding changes in property prices for stable home-owning families that don't move or improve properties, we follow the Institute for Fiscal Studies in adopting a 'hybrid' approach in which all gross property wealth changes for these families are passive. This means we are likely to under-capture active saving via home improvements somewhat. However, given that at the aggregate and over a number of years the growth in the value of properties in our data fairly closely matches changes in published house price indices, this approach is unlikely to overstate passive saving to too great a degree.

The gross wealth changes of those who take on gross property wealth (e.g. first-time buyers) or go from having some to having none (e.g. exiters from home ownership) are all active. All changes to mortgage debt levels (including those relating to taking out a mortgage, re-mortgaging and paying off mortgage debt) are also active.

Net financial wealth

Changes to gross financial assets are a result of either putting money into or taking money out of these assets, or the interest or investment return on previously-held assets. The first of these can be thought of as active saving, the second passive saving.

In a similar vein to our approach to deriving passive changes to (some families') property wealth above, we estimate passive changes to gross financial wealth by taking gross assets in the first wave and indexing their value forwards according to the published information on average returns. We apply different indices to different types of financial assets, as follows:

- The returns on savings accounts are estimated using the Bank of England's 'instant access savings' index.
- The returns on cash ISAs, investment ISAs, fixed-terms bonds and other 'safe' investments are estimated using the Bank of England's 'cash ISA deposits' index.
- The returns on UK and overseas gilts, UK and overseas shares and employee shares are estimated using the FTSE total return index.
- The return on current accounts and informal assets are estimated at 0 per cent.

Active saving is estimated as the difference between the reported change in gross financial wealth and this estimated passive change. All changes to financial debt levels are active saving (or dis-saving).

Private pension wealth

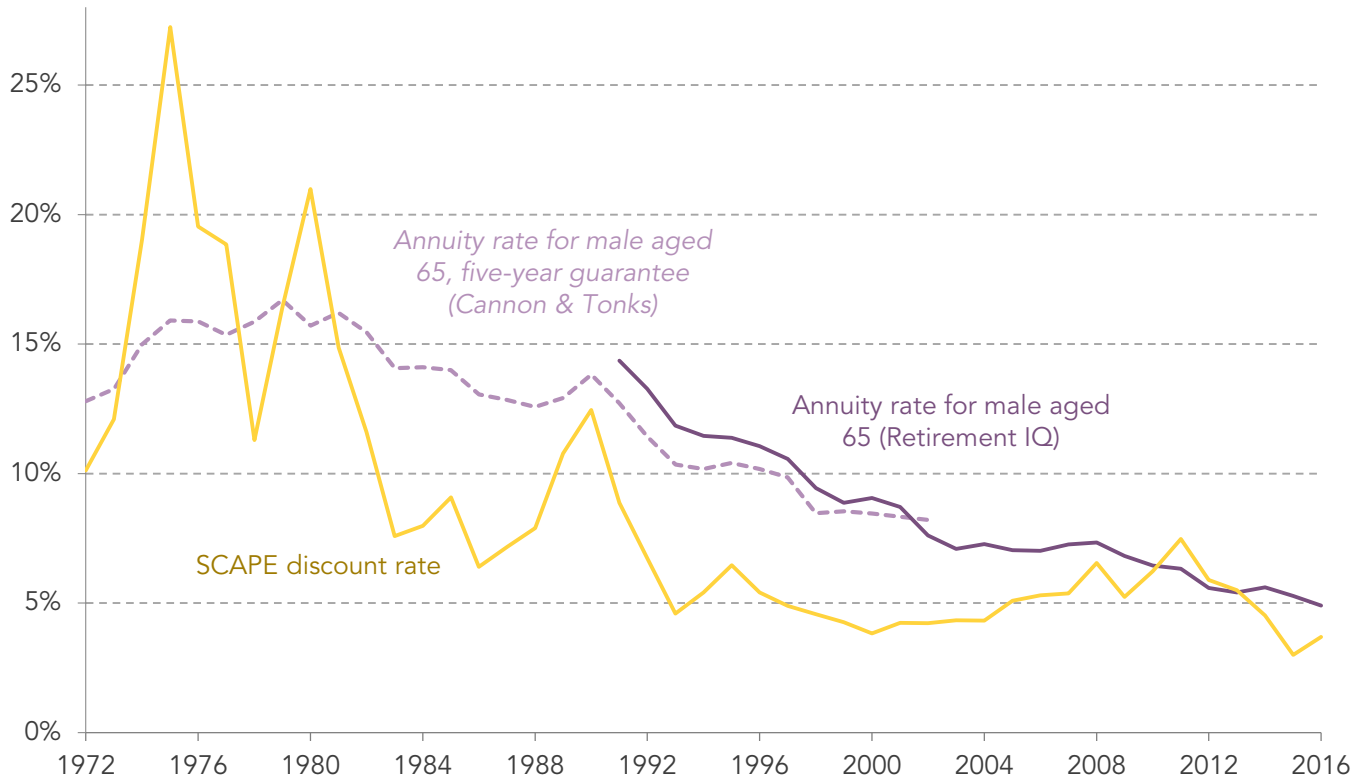
The data on pension contributions in WAS does not allow us to decompose active and passive pension saving in a similar manner to our approach to property and financial

wealth. This is because we don't have the information to distinguish between personal, employee and employer contributions on the one hand, and the passive return received on previously-accumulated funds on the other.

Instead, we exploit the method for valuing DB pension wealth (and the wealth associated with pensions in payment) in this survey. This converts these obligations into the size of DC fund that would be required at the time to purchase that future income stream, valued according to annuity rates and a discount factor that takes into account interest rates (and the number of years until retirement in the case of pension not in receipt).

As Figure 46 shows, both annuity and discount rates have fallen over the period the WAS data covers and the longer term, which all-else-equal pushes up the value of wealth in DB pensions and pensions in payment in WAS. By contrast, because the individuals holding them remain exposed to such market fluctuations, there is not equivalent effect on DC and personal pensions in the data. This may seem odd as annuity and discount rate changes of this nature might be thought of as making one form of pension (DC) less valuable, rather than the other main type of pension (DB) more valuable as the data implies. But the essence of this method is to communicate the relative divergence between the two associated with wider market factors, so the end result is equivalent to what we would get if it were possible to apply 'valuation' changes to DC and personal pensions.

Figure 46: **Historic annuity and discount rates: 1972-2016, UK**



Notes: Annuity rates are level rates, without enhancements for smokers or those in ill-health. The Superannuation Contributions Adjusted for Past Experience (SCAPE) discount rate is the rate of CPI growth plus 3 percentage points. Historic CPI growth has been estimated using changes in RPI.

Source: E Cannon & I Tonks, 'U.K. Annuity Rates, Money's worth and Pension Replacement Ratios, 1957-2002', *The Geneva Papers on Risk and Insurance – Issues and Practice 29:3*, July 2004; Retirement IQ, *Historical annuity data*

Our method calculates 'valuation' changes to pension wealth as the difference between wealth in the second wave, and wealth in the second wave when valued using the annuity and discount rates from the first wave. Figure 47 details the calculation used for this purpose.

Figure 47: **Formula used to calculate 'valuation' changes to wealth in defined benefit pensions and pensions in payment**

$$\text{'Valuation' change between wave 1 (w1) and wave 2 (w2)} = \frac{A_{R,w2} * Y_{w2} + L_{w2}}{(1 + r_{w2})^{R-a,w2}} - \frac{A_{R,w1} * Y_{w2} + L_{w2}}{(1 + r_{w1})^{R-a,w1}}$$

Y is annual pension income
A_R is an age- and sex- specific annuity factor at pension age R
L is the lump sum paid at retirement
r is the discount rate
a is age

Notes: The annuity rates we use for each wave are recorded in the WAS data. They are level rates, without enhancements for smokers or those in ill-health. The discount rate is the Superannuation Contributions Adjusted for Past Experience (SCAPE) rate, which is the rate of CPI growth plus 3 percentage points.

'Non-valuation' changes are the difference between the total change in pension wealth and the 'valuation' change, i.e. those changes deriving from changing accruals or earnings affecting the (future) income stream the pension will provide.

This decomposition is not relevant for DC and personal pensions, in which wealth is simply the accumulated fund.

It's worth noting again that the approach here is not the same as our method for determining passive changes to property and financial wealth above. In particular, our estimate of 'valuation' changes doesn't account for the fact that many DB scheme members in the public sector and some in private companies now make a contribution from their earnings to help meet the costs of provision that are being driven up by these 'valuation' effects.

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- *developing practical and effective policy proposals; and*
- *engaging with policy makers and stakeholders to influence decision-making and bring about change.*

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