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Research Report

The evolution of wealth in Great Britain: 2006-08 to 2010-12

IFS Report, No. R109

Provided in Cooperation with:
Institute for Fiscal Studies (IFS), London

Suggested Citation: Crawford, Rowena; Innes, Davis; O'Dea, Cormac (2015) : The evolution of wealth in Great Britain: 2006-08 to 2010-12, IFS Report, No. R109, ISBN 978-1-911102-03-8, Institute for Fiscal Studies (IFS), London, https://doi.org/10.1920/re.ifs.2015.0109

This Version is available at:
https://hdl.handle.net/10419/141980

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The Evolution of Wealth in Great Britain: 2006-08 to 2010-12

IFS Report R109

Rowena Crawford
David Innes
Cormac O'Dea

1965 - 2015 50 E·S·R·C 50 YEARS SHAPING SOCIETY

The Evolution of Wealth in Great Britain:

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Institute for Fiscal Studies

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Published by

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London WC1E 7AE
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Website: http://www.ifs.org.uk

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ISBN 978-1-911102-03-8

Preface

The authors would like to thank Joshua Walker for valuable research assistance on the analysis of individuals' attitudes towards saving. The authors would also like to thank Carl Emmerson and members of the Institute for Fiscal Studies (IFS) Retirement Savings Consortium for providing useful comments throughout the course of this work.

This report was funded by the IFS Retirement Savings Consortium and the Economic and Social Research Council (ESRC) through a Knowledge Exchange Grant. The IFS Retirement Savings Consortium comprises Age UK, Department for Work and Pensions, Financial Conduct Authority, HM Treasury, Institute and Faculty of Actuaries, Investment Association, Just Retirement and Money Advice Service. This work would also not have been possible without support from the ESRC-funded Centre for the Microeconomic Analysis of Public Policy at IFS (grant reference RES-544-28-5001).

The Wealth and Assets Survey data (ONS, 2015) are collected by the Office for National Statistics, and funded by Office for National Statistics, Department for Work and Pensions, Department for Business, Innovation and Skills, HM Revenue and Customs, Department for Communities and Local Government, Scottish Government and Financial Services Authority. The data were made available by the UK Data Archive (crown copyright).

Responsibility for interpretation of the data, as well as for any errors, is the authors' alone.

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Executive Summary

The accumulation (and 'decumulation') of wealth is a process that has come increasingly under the spotlight in recent years. There is growing policy and societal interest in understanding when, how and why households are building up (and running down) wealth, how this differs between different types of households, and how this process has changed over time and might continue to change in future.

Despite this interest, existing evidence for the UK is relatively limited – largely because until recently there has been a lack of good data on wealth holdings of individual households. In this report, we aim to improve understanding of these issues considerably using new data from the Wealth and Assets Survey (WAS). This is a panel survey, which interviews the same households every two years, and collects detailed data on households' wealth (in particular, the level of wealth held in many different types of assets). The first WAS interviews were conducted between 2006 and 2008, and to date there are three 'waves' of data available (interviews conducted in 2006–08, 2008–10 and 2010–12).

The level, composition and distribution of wealth in 2010–12

To set the scene, Chapters 2 and 3 describe the distribution and detailed composition of household wealth in Great Britain in 2010–12. We divide household wealth into three broad components – property, financial and pension – and also consider finer categories within these. The analysis shows the following.

- Total household wealth is distributed very unequally. The wealth of the median household – that is, the household in the middle of the wealth distribution – is £172,000, while 9% of households have no positive net wealth, and 5% of households have in excess of £1.2 million. The Gini coefficient – a commonly used measure of inequality, which takes the value 0 under complete equality and 1 under complete inequality – is 0.65 on total household wealth, compared to 0.40 for household net income.

- Financial wealth is the most unequally distributed component of wealth, with a Gini coefficient of 0.91, followed by private pension wealth (Gini of 0.73) and then property wealth (net of mortgage debt; Gini of 0.64).

- Some of the inequality in wealth holdings reflects lifecycle factors. All components of wealth display a 'lifecycle' pattern with average wealth increasing with age until around the mid-60s, and then declining thereafter. For example, median total household wealth is £23,000 for those aged 25–34, £382,000 for those aged 55–64 and £173,000 among those aged 85 and over.

- Net property wealth is held by 70% of households; 68% of households own (either outright or with a mortgage) their own residence, while 8% of households own other property wealth. Primary housing wealth accounts for

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86% of all gross property wealth held by households, with second homes and buy-to-let explaining much of the remainder.

- The most commonly held liquid financial assets (outside current accounts) are savings accounts and cash ISAs, which are held by 58% and 43% of households, respectively, and account for 22% and 12% of total gross financial wealth, respectively. Fixed term investment bonds also account for 11% of household gross financial wealth, though these assets are only held by 12% of households.

- Half of households have some financial liabilities. The most common form is credit cards (25% of households have an outstanding balance at the end of the month, accounting for 22% of all gross financial liabilities), followed by overdrawn current accounts (18% of households and 5% of gross liabilities) and formal loans (17% of households and 37% of liabilities). Student loans are held by just 6% of households, but account for 17% of all gross financial liabilities.

- Over three-quarters of households (76%) have some form of private pension coverage; this figure is less than 65% for households aged 25–34 and over 80% for households aged 55–64.

The evolution of household wealth, 2006–08 to 2010–12

In Chapter 4, we explore the evolution of wealth over time for the sample of 'stable' households that we observe consistently in all three waves of the WAS data. We find the following during the four-year period between 2006–08 and 2010–12.

- Average total household wealth rises in real terms with age throughout working life and declines in retirement. There is also some evidence that later cohorts of working age individuals may have lower real wealth at each age than the cohorts that preceded them. At the household level, the majority of working age households saw an increase in their total real net household wealth between 2006–08 and 2010–12, while the majority of retirement age households saw a decline in their total real net wealth. However, at all ages, there is a wide distribution of wealth changes across households.

- For virtually all age groups, mean and median real gross property wealth fell over the period, as did average mortgage debts. The exception is households aged 25–34 in 2006–08, among whom average gross property wealth and average debts are increased due to more households moving into homeownership. At the household level, there is a wide distribution of experiences, though the majority of households saw declines in their real net property wealth.

- Gross financial assets show a similar lifecycle pattern to total household wealth, though changes in mean gross financial wealth are larger than changes in median gross financial assets. Again there is a wide variety of experiences at the household level, though the distribution is relatively

symmetric around no change: 25% of households experienced an increase in their real net financial wealth over the period of over around £7,000, while 25% of households experienced a decrease of over around £10,000.

In Chapter 5, we distinguish between (a) 'active changes' (i.e. changes in wealth due to saving out of current income or spending wealth), (b) 'passive changes' (i.e. changes in wealth as a result of returns on existing capital) and (c) 'valuation changes' (i.e. changes in pension wealth as a result of changes in the way a future income stream is valued). This analysis suggests the following.

- The majority of households enjoyed small passive nominal increases in their financial wealth over the four-year period. This reflects that the majority of financial assets are held in safe assets, which saw small positive returns (if any) over the period, and that few households hold risky financial assets such as shares, which saw much more volatile returns.

- The distribution of estimated active saving (or dissaving) in financial wealth is much wider, though many households are estimated to have saved (or dissaved) relatively small amounts (48% of households are estimated to have active financial saving of between –£5,000 and +£5,000 over the four-year period). Active financial saving is greater for households towards the middle of working life than younger or older households, and greater for those with the highest levels of income than those in the bottom four-fifths of the income distribution.

- Over this period, house prices were very volatile, and so households in different regions and interviewed at different times in the two-year period of interviews saw very different passive changes in their property wealth.

- Positive saving in property wealth is more common at younger ages than older ages (e.g. 45% of households aged 25–34 in 2006–08, compared to 33% of households aged 55–64 and 7.8% of households aged 85 and over). This is because younger households are more likely than older households to purchase a home for the first time or move to a larger home, to extend their primary home or to be paying down their mortgage debt.

- Changes in the value attributed to future defined benefit pension income (irrespective of any change in the future pension income itself) are an important component of the change in pension wealth, particularly for households towards the end of working life. Mean total pension wealth among those aged 45–54 in 2006–08 increased by around £85,000 between 2006–08 and 2010–12, but would have only increased by around £38,000 if there were no change to the annuity rates and discount rates used to value future pension income.

We also consider the role of inheritances and large gifts in the evolution of wealth over this period (see Chapter 6).

- 11% of the sample of 'stable' households that we observe consistently in all three waves of the WAS data received an inheritance worth £1,000 or more over the four years, while 12% received a gift worth £500 or more.

- The mean (median) value of inheritances received was around £57,700 (£13,300), compared to a mean change in non-pension wealth over this period of around –£400 among those who received an inheritance, and around –£12,700 among all households.

Attitudes towards saving

In addition to detailed information on individual and households' wealth holdings, the WAS survey also asks individuals about their attitudes towards saving. Analysis of these data is useful to give some sense as to the motivations underlying the changes in wealth observed over the period 2006–08 to 2010–12.

- In 2010–12, 47% of individuals aged 25 and over reported saving some of their income over the past two years in financial assets (excluding pensions). There is little variation in the proportion reporting saving by age.

- The main reported reason for saving is for an unexpected expense (30% of all individuals aged 25 and over), followed by saving for holidays/leisure (23%), for planned expenses (15%), for others (10%) and to provide an income in retirement (10%). The prevalence of saving for holidays/leisure and for planned expenses declines with age, while the prevalence of saving for others increases; the prevalence of reporting saving for retirement peaks among those aged 45–54. Over a third of individuals (36%) report not saving because they cannot afford to.

- Over the period since 2006–08, the odds of reporting saving for investment purposes declined significantly (by 2012, these were nearly only half what they were in 2006), while the odds of reporting saving for an unexpected expense or for a deposit increased significantly (by 2012, these were around 20% higher and nearly 60% higher, respectively, than in 2006).

- Median (mean) active saving over the period 2008–10 to 2010–12 is estimated to have been around £800 (around £2,800) among those reporting saving over the two years prior to 2010–12, and around zero (around –£1,700) among those reporting not saving. On average, active saving is estimated to be greater among those reporting saving for retirement or for investment than among those reporting saving for an unexpected expense or for holiday/leisure purposes.

- 35% of individuals aged 25–74 who had not yet retired in 2010–12 expected private pension income to be their largest source of retirement income, and 33% expected state pension income to be their largest source. 81% of individuals reporting that private pension income would be most important currently have some private pension entitlements (compared to 47% of those reporting that state pension income would be most important).

- 8% of individuals aged 25–74 who had not yet retired in 2010–12 expected income from savings and/or investments to be their largest source of retirement income. Among these individuals, 73% had some financial assets (outside current accounts) and the mean value of this wealth, at around £63,200, was greater than the mean across all individuals (around £20,000).

- 6% of individuals expect their primary residence to provide their largest source of income (by downsizing, borrowing against the value of the home or renting out a room). 4% of individuals expected other property wealth to be their main income source. Among those reporting the latter, only just over half (56%) had such property wealth in 2010–12.

- Individuals report that they would trust many different institutions/bodies for advice with retirement saving. Independent Financial Advisers were reported by 40% of individuals, banks and building societies by 28%, consumer bodies (such as the Citizens Advice Bureau) by 19%, accountants by 17%, the Financial Services Authority (FSA, as it was in 2010–12) by 16% and the Pensions Service by 15%. Over the period 2007–12, the odds of reporting trusting banks and building societies, and trusting newspapers declined, while the odds of reporting trusting the Internet, the FSA and other consumer bodies increased.

1. Introduction

The accumulation (and 'decumulation') of wealth is a process that has come increasingly under the spotlight in recent years. There is growing policy and societal interest in understanding when, how and why households are building up (and spending down) wealth, how this differs between different types of households, and how this process has changed over time and might continue to change in future.

Much recent interest in this area has been motivated by the macroeconomic shocks of the past decade. The years since the start of the financial crisis have seen large changes in asset prices, which potentially have had significant impacts on the wealth holdings of households (Banks, Crawford and Tetlow, 2008; Banks et al., 2013; Broughton, Kanabar and Martin, 2015; Hills et al., 2015). Depending on when in the lifecycle households experienced these shocks, the impact on wealth may be more or less permanent. For example, households about to retire may have had to crystallise losses experienced in defined contribution (DC) pension funds, while younger households might experience a smaller permanent hit to their wealth if they continue holding these assets through any recovery in asset prices.

Perhaps the most important driver of recent interest in this area, however, is the considerable number of policy changes introduced over the past few years that are either motivated by trends in household wealth accumulation, or are intended to influence household wealth accumulation (or decumulation), or both. Such policies include: the introduction of auto-enrolment into workplace pensions, the increase in the amounts that can be saved tax-free in Individual Savings Accounts (ISAs), the introduction of Help to Buy ISAs, the removal of the effective requirement to purchase an annuity with accumulated DC wealth, and the removal of tax penalties for those wanting to sell an annuity stream for a lump sum. In order to assess the motivations for these policies, and in future to explore their impact on household behaviour, it is important to understand patterns of wealth accumulation and decumulation across the lifecycle, and how these differ between households and between cohorts.

Existing evidence on the process of wealth accumulation in the UK is relatively limited. This is because, until recently, there was a lack of good micro-data on individual- or household-level wealth holdings. Household surveys that elicited data on wealth had been conducted only intermittently. For example, the British Household Panel Survey (BHPS) interviewed the same households annually between 1991 and 2008, but only asked a limited set of questions about wealth holdings in 1995, 2000 and 2005. The Retirement Survey (RS) collected banded data on wealth holdings for a sample of individuals aged 55–69 in 1988–89, but these households were only followed up once, in 1994. These data have been used by some studies to explore changes in wealth over time; for example, Crossley and O'Dea (2010) use the BHPS and Disney, Johnson and Stears (1998) use the RS. However, such analysis is hindered by inconsistency of questions over

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time (in the case of the BHPS), sample attrition (which is typically greater the further apart interviews are), the difficulty of understanding drivers of wealth changes over relatively long periods, and the restriction to individuals of a particular age (in the case of the RS).

An alternative approach to understanding patterns of wealth accumulation over time is to use data on savings, measured as the difference between income and consumption. Such data have been available for an annual cross-section of households on a relatively consistent basis since the mid-1970s from the Living Costs and Food Survey (known as the Expenditure and Food Survey prior to 2008, and the Family Expenditure Survey prior to 2001). A number of studies have used these data to explore differences in saving between households and cohorts (e.g. Banks and Blundell, 1994; Attanasio and Rohwedder, 2003; Crossley and O'Dea, 2010; Hood and Joyce, 2013). However, the calculation of savings by subtracting spending from income cannot capture savings that arise from unrealised capital gains (or losses), cannot distinguish between saving in different types of asset, and is particularly vulnerable to measurement error.

In recent years, however, there have been improvements (both in the UK and internationally) in the micro-data available on household wealth holdings. In 2002–03, the English Longitudinal Study of Ageing (ELSA) was introduced, providing biennial panel data on the wealth holdings of a sample of households aged 50 and over. Banks, O'Dea and Oldfield (2010) and Crawford and Tetlow (2012), amongst others, have used these data to explore the wealth trajectories of older households. Then, with the introduction of the Wealth and Assets Survey (WAS) in 2006–08, regular panel data on the wealth holdings of a nationally representative sample started to become available. WAS interviews the same households every two years, and collects detailed data on the level and composition of households' wealth. The first WAS interviews were conducted between July 2006 and June 2008, and to date there are three 'waves' of data available (interviews conducted in 2006–08, 2008–10 and 2010–12).

The WAS data have already been used to improve knowledge of the wealth distribution in the UK (e.g. Hills and Bastagli, 2013; Kumar, Ussher and Hunter, 2014; ONS, 2009, 2012, 2014a), and to explore how wealth inequality has changed over time (e.g. Hills et al., 2015).[1] In this report, we add to these existing studies by exploiting the longitudinal nature of the WAS to document how the wealth of a particular set of households has changed over time, and to explore the potential drivers of these changes in wealth.

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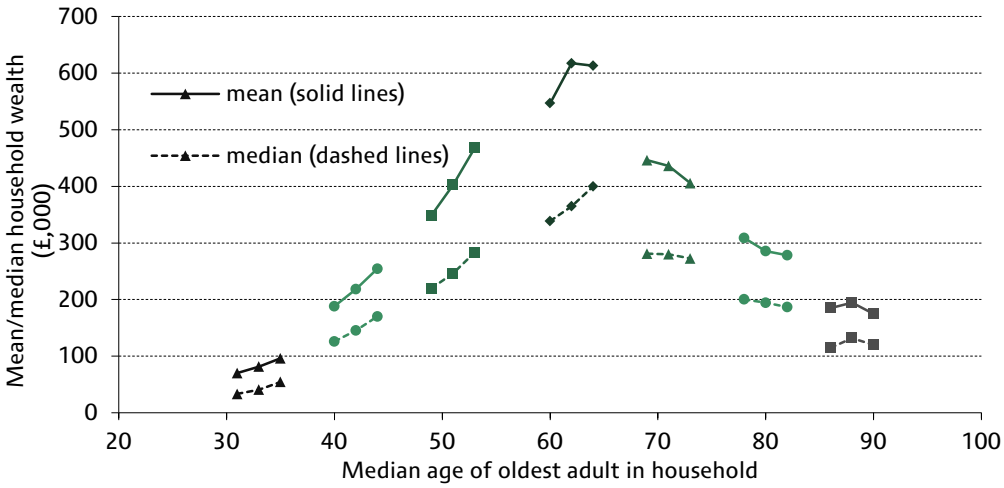
[1] The distribution of wealth in the UK has previously been estimated using data on the value of estates (the 'estate method') and data on the flow of income that wealth yields (the 'capitalisation method'). See Atkinson and Harrison (1978) for an early description and application of these methods, and Piketty (2014) and Saez and Zucman (2014) for more recent applications. However, these methods do not always allow the study of the distribution of different components of wealth (because, for example, taxes on estates depend only on the overall level of wealth and not its composition), and may not accurately capture the wealth of those outside the top of the distribution (because many will not be liable for estate taxes, others may take steps to avoid – or even to evade – these, and some might not hold wealth in income-bearing assets).

To set the scene, Figure 1.1 illustrates average total household wealth over time (not adjusted for inflation). Households are grouped into birth cohorts according to the age of the oldest member when first interviewed in 2006–08, and the points plot average wealth against the average age of the group in each wave of WAS. (As there have been three waves of WAS, each group of households is observed three times, at two-year intervals.) The picture generated is somewhat predictable: household wealth rises with age throughout working life, and declines through retirement. There is some evidence of cohort differences in nominal wealth levels. For example, focusing on the cohort of households observed, on average, at age 70 in the first wave of WAS, the assumption that average wealth within each cohort continues on the same trajectory as over the 2006–12 period would suggest that they will have higher median nominal wealth at each age than the preceding cohort. This would be expected, to some extent, if levels of wealth were to keep pace with inflation.

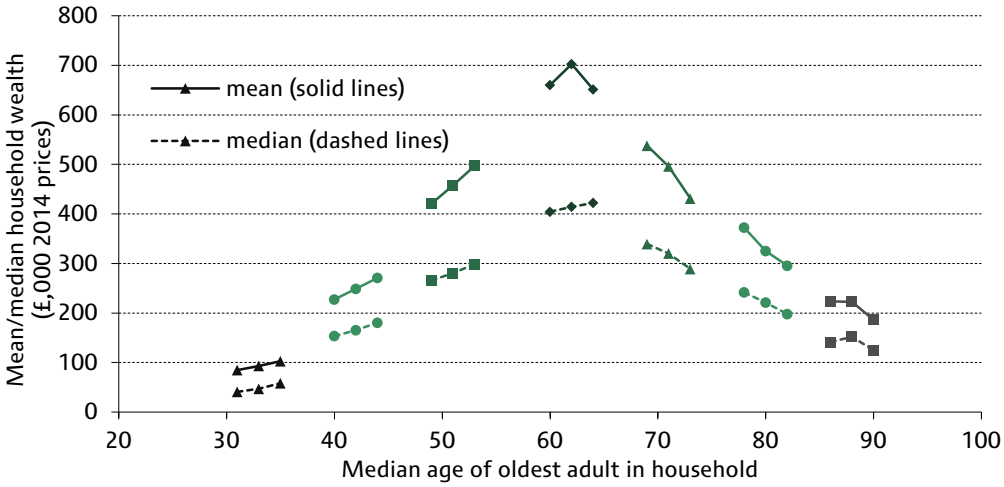
To give a sense of how the purchasing power of total household wealth differs between cohorts and has changed over time, Figure 1.2 illustrates the same as Figure 1.1 but with wealth adjusted for inflation using the Consumer Price Index. Looking at the trajectories, cohort differences between households currently of working age are more evident than those at older ages. However, we should be cautious in drawing these conclusions based on Figures 1.1 and 1.2 alone, because asset price falls over this period may mean that the trajectory of wealth in future may differ to that experienced over the 2006–12 period.

Figure 1.1. Change in average total wealth 2006–08 to 2010–12



Note: Total wealth is the sum of financial wealth, property wealth and pension wealth. Households are split into 10-year age groups based on age in 2006–08 (with the median birth year given in brackets): 25–34 (1976), 35–44 (1967), 45–54 (1958), 55–64 (1947), 65–74 (1938), 75–84 (1929), 85 and over (1921). Weighted sample of stable single benefit unit households (see Appendix A for details).

Figure 1.2. Inflation-adjusted change in average total wealth 2006–08 to 2010–12



Note: As Figure 1.1. Converted into real terms (2014 prices) using the Consumer Price Index.

To improve understanding of the process of wealth accumulation and decumulation, in this report we decompose the changes in wealth described in Figures 1.1 and 1.2 along two dimensions. First, we consider the components of wealth separately (broadly, financial wealth, housing wealth and pension wealth). Second, for each component, we attempt to distinguish between (a) wealth that has accrued due to active saving out of current income (or transfers from another component of wealth), (b) wealth that has accrued as a result of returns on existing capital (i.e. 'passive' saving) and (c) wealth changes that have occurred due to changes in the way a future income stream is valued (i.e. 'valuation changes' – pertinent to certain types of pension wealth). We also document how wealth was transferred to households over this period in the form of inheritances and gifts.

This report proceeds as follows. We start in Chapter 2 by describing the distribution of household wealth in 2010–12, exploring inequality in wealth holdings both across the whole population and within particular age groups. We also consider the broad composition of household wealth, and the distribution of property wealth, financial wealth and pension wealth within age groups. Then, in Chapter 3, we document in much greater detail the composition of each of these broad categories of wealth in 2010–12.

In Chapters 4, 5 and 6, we focus on changes in wealth over time. In Chapter 4, we exploit the panel nature of the WAS to document how average financial, property and pension wealth has changed over time for a constant sample of households (in the vein of the analysis presented in Figures 1.1 and 1.2) and describe the distribution of household-level changes in wealth. In Chapter 5, we analyse the distinction between 'active' and 'passive' saving in financial and property wealth, and between changes in pension wealth that reflect changes in future pension entitlements and changes that simply result from a change in the way a given future income stream is valued. Then, in Chapter 6, we explore the prevalence

and size of inheritances and gifts received over the period 2006–08 to 2010–12, and consider the potential contribution of these to the changes in wealth observed.

In addition to the detailed information on wealth holdings available in the WAS, the survey also asks individuals a number of questions about their attitudes towards saving, and saving for retirement in particular. In Chapter 7, we analyse some of these data to explore individuals' stated reasons for saving or not saving, their expectations about their retirement income sources, their trust in providers of retirement savings advice, and how each of these has changed over time.

Finally, in Chapter 8, we conclude, bringing all these themes together. A number of technical appendices are also provided. Appendix A provides a description of the WAS data used throughout this report. Appendices B–D set out in detail our methodology for decomposing the change in financial wealth, property wealth and pension wealth (respectively) as discussed in Chapter 5.

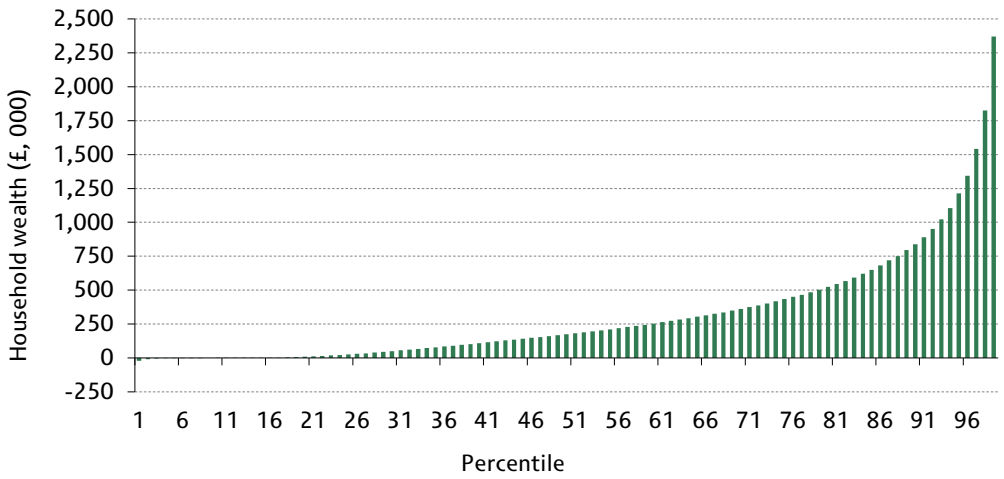
2. Distribution of Wealth in 2010–12

We start in this chapter by describing the distribution and composition of household wealth in Great Britain in 2010–12 (the latest year for which WAS data are available). All figures are presented at the household level, and we do not adjust for household size.[2]

2.1 Level and distribution of wealth

Figure 2.1 orders the household population from the least wealthy on the left to the wealthiest on the right, and plots the wealth of households at each 'percentile' of the distribution. (For example, the 20th percentile at around £10,000 indicates that 20% of households have household wealth of £10,000 or less.) The figure immediately makes clear the well-known fact that wealth is distributed very unequally. A significant proportion of households have no wealth at all: the first percentile is –£16,000 (so 1% of households have net debts of greater than £16,000), and the 9th percentile is £0 (so 9% of households have no positive net wealth). Wealth at the 50th percentile (the median) is £172,000: half of households have less than this level of wealth while half have more. Wealth at the very top increases dramatically across a small number of percentiles – the 95th and 99th percentiles are £1.2m and £2.4m respectively. These very high

Figure 2.1. Percentile plot of total household wealth



Note: Weighted sample of all households interviewed in 2010–12.

[2] In comparing distributions of income and expenditure across households it is common to 'equivalise' (i.e. to divide by the number of equivalent adults in the household) to account for the fact that not all households are the same size. There is no consensus on whether – and, if so, how – to equivalise wealth. Income and spending are concepts relating to a particular period in time (e.g. a year). It makes sense, then, to divide by the household (equivalent) size in that period. Wealth is a stock measure – it will be spent over a number of future years (or bequeathed to future generations). Therefore, it is not clear what is the relevant size of household to divide by. In this report, we do not adjust wealth for household size.

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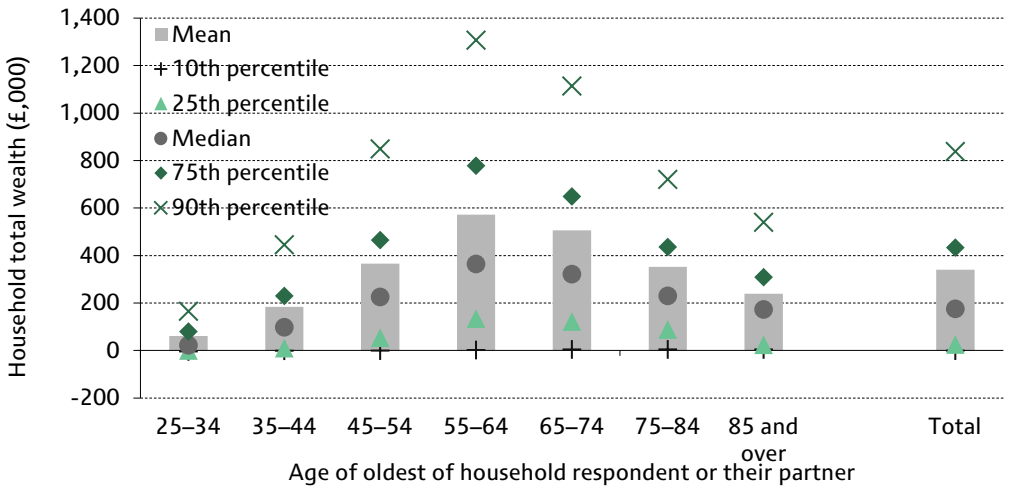
percentiles are likely to be underestimates – it is suspected that wealth surveys such as the WAS are not able to capture the wealth levels of those at the very top of the wealth distribution (see Vermeulen, 2014, for a discussion of this phenomenon).

The wealth distribution, then, is very unequal. However, in comparing wealth across households of different ages, we are likely to be exaggerating the implications of that inequality for household well-being. Suppose all households in the population had the same path of wealth (so that, over an entire lifecycle, there is no wealth inequality). In this scenario, a comparison of households at older ages (when they will have had the time to accumulate substantial levels of wealth) with those at younger ages will reveal wealth inequality. To separate, to some extent, wealth inequality among different individuals from wealth inequality across the lifecycle of the same individuals, in the following figures and tables, we show the analysis separately by household age groups. The groups are: 25–34, 35–44, 45–54, 55–64, 65–74, 75–84 and 85 and over. (Those households where the oldest member is aged under 25 are excluded from our analysis.)

Figure 2.2 shows selected percentiles (the 10th, 25th, 50th (median), 75th and 90th) of total household wealth for each of these age groups. Apart from the 10th percentile, which is close to zero for all age groups, most percentiles exhibit what is known as a typical 'lifecycle' pattern. Initially, wealth levels are higher as successively older ages are considered, but subsequently are lower as those past typical retirement ages are considered (because wealth – particularly pension

Figure 2.2. Distribution of total household wealth by age

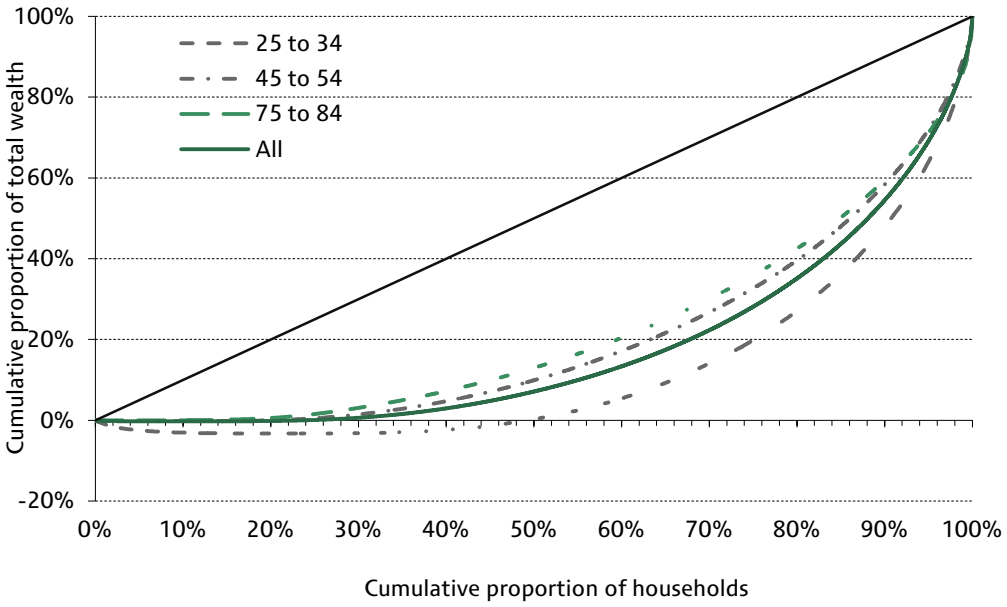


Note: Weighted sample of all households interviewed in 2010–12.

wealth – may be run down in retirement).[3] Median wealth is £23,000 for those aged between 25 and 34, is at a peak of £382,000 for those aged 55–64 and is lower (at £173,000) among those aged 85 and over.

To illustrate, further, the extent to which wealth inequality differs between age groups, Figure 2.3 shows a Lorenz curve for three age groups (those aged between 25 and 34, between 45 and 54, and between 75 and 84; other age groups are ommitted to avoid cluttering the figure). To read this graph, select a point on the horizontal axis (say *x*%), read up a particular Lorenz curve (e.g. the solid 'All' line) and across there to the vertical axis (to, say, *y*%). This tells you that *x*% of households with the lowest levels of wealth hold *y*% of aggregate wealth. As a concrete example, the 50% of the household population with the lowest wealth hold approximately 7% of aggregate wealth, while the 90% with the lowest wealth hold approximately 54% of aggregate wealth. The further away the Lorenz curve is from the diagonal line, the more unequal is the distribution of wealth (a population with each member having the same level of wealth would have a Lorenz curve that lies along that diagonal line). Those between the ages of 25 and 34 have the most unequal distribution of those shown. The Lorenz curve gives a negative value until almost 50% for these households[4] (i.e. together the wealth levels of each household within the bottom half of the distribution add

Figure 2.3. Lorenz curves for total wealth for different age groups



Note: Weighted sample of all households interviewed in 2010–12.

[3] In comparing households of different ages here, we are conflating differences due to households being of different ages (and so having had different lengths of time to accumulate wealth) and households belonging to different birth cohorts (and so having lived through different times that will have afforded them different economic opportunities). Separating these effects requires using the longitudinal element of a survey, something we do in later chapters. When interpreting the result in this chapter, it is important to bear in mind that the comparisons between age groups are between those of different ages in 2010–12.

[4] When Lorenz curves are shown for quantities (such as expenditure) that can only take positive values, the Lorenz curve cannot fall below the 0% level on the vertical axis.

to approximately zero). The other age groups have distributions of wealth that are less unequal than the all-ages distribution of wealth.

The extent of the inequality shown by a Lorenz curve can be summarised with a single number – the Gini coefficient. This gives the ratio of the area between the diagonal line and the Lorenz curve to the whole area between the diagonal line and the horizontal axis. A population with each member having the same level of wealth will have a Gini coefficient of zero; the greater the inequality and, therefore, the greater the area between the diagonal line and the Lorenz curve, the greater the Gini coefficient will be.[5] Table 2.1 shows the Gini coefficient for total wealth for each age group. For context, we also show the Gini coefficient for household net income (calculated using the Family Resources survey[6]). The table shows, first, that wealth at all ages and among the whole population is more unequally distributed than is net income. Second, wealth (and indeed income) tends to be more unequally distributed overall than within particular age groups. The exception to this is the distribution of wealth for the youngest two groups of households. We noted above, in discussing the Lorenz curves, that wealth among those aged between 25 and 34 is more unequally distributed than among all households. The former group have a Gini coefficient of 0.76 compared to 0.65 for all households. The wealth distribution for the next youngest group (i.e. those aged between 35 and 44) has the same Gini coefficient as the whole population.

Table 2.1. Gini coefficients by age: wealth and net income

	Total wealth (2010–12)	Net income (2011–12)
25–34	0.76	0.32
35–44	0.65	0.38
45–54	0.60	0.45
55–64	0.56	0.41
65–74	0.56	0.35
75–84	0.56	0.33
85 and over	0.56	0.31
Total	0.65	0.40

Note: Gini coefficients for wealth are calculated using the weighted sample of households in the WAS in 2010–12. Gini coefficients for net income are calculated using the Family Resources Survey 2011–12.

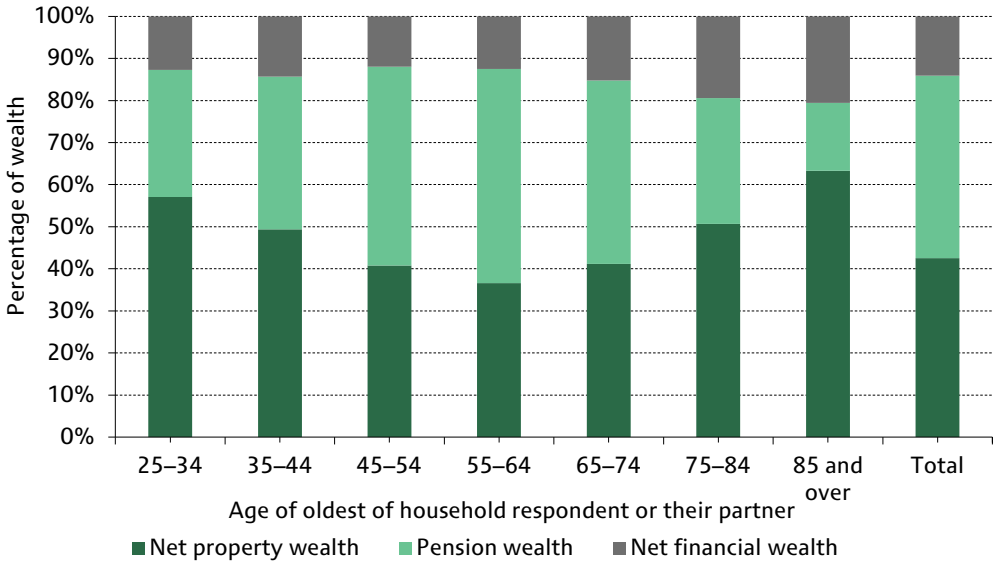
[5] For quantities that do not take negative values, the Gini coefficient cannot be greater than 1. Wealth can take negative values and therefore the Gini coefficient can be greater than 1.

[6] We are grateful to Robert Joyce for providing us with these numbers.

2.2 Broad composition of wealth

Figure 2.4 gives, for each age group, the share of average wealth held in each of three categories: property, pension and financial wealth.[7] Property wealth – measured net of any mortgage debt – makes up the largest share for the youngest and the oldest age groups. Pension wealth is, of course, highest among those approaching and just after retirement. Smaller shares are held in financial wealth, with those in different age groups holding between 13% and 24% of their wealth in this form.

Figure 2.4. Composition of wealth, by age



Note: Weighted sample of all households interviewed in 2010–12.

Because it gives shares out of average (or aggregate) wealth within a particular age group, Figure 2.4 implicitly gives more weight to those with more wealth. Table 2.2, which shows mean and median wealth, by age and component, shows that, within age groups, there is substantial heterogeneity in the share held in each form. Take, for example, those in the youngest age group. Figure 2.4 shows that these households held just under 60% of their wealth in the form of property. The mean numbers in Table 2.2 give the numbers behind this calculation (approximately £35,000 in average property wealth, £8,000 in financial wealth and £19,000 in pension wealth). The median levels of wealth tell a different story. For those in the youngest age group, median property wealth is 0 (i.e. less than half of households in this group (46.2%) have positive property wealth[8]), while median financial wealth is positive but small (approximately

[7] These are calculated as the mean level of wealth held in a particular component divided by the mean level of total wealth held by those in the age group. This is equivalent to dividing the aggregate (or total across households) level of wealth held in a particular component by the aggregate (or total) wealth held by those in the age group.

[8] This does not mean that less than half of households have any property wealth. A further 3.3% of households have negative equity (the value outstanding on their mortgage is greater than the value of their house), whilst

£400) and median pension wealth much larger (at just over £5,000). The divergence between mean and median property wealth (and in other forms of wealth) is indicative of inequality within a category – those with the highest levels of a particular component of wealth have a much greater effect on the mean of that component than on its median.

Table 2.2. Mean and median wealth, by type and age

	Property wealth	Financial wealth	Pension wealth	Total wealth
Mean				
25–34	35,365	7,915	18,688	61,967
35–44	91,090	26,404	67,066	184,560
45–54	149,352	43,965	173,090	366,407
55–64	209,569	71,625	290,763	571,958
65–74	208,167	77,213	220,603	505,983
75–84	178,712	68,510	105,603	352,825
85 and over	151,552	49,321	38,518	239,391
All	144,977	48,077	147,995	341,049
Median				
25–34	0	389	5,038	22,700
35–44	48,000	1,490	25,749	98,313
45–54	99,000	4,001	71,261	225,993
55–64	150,000	14,050	146,000	364,850
65–74	155,000	18,707	106,276	322,072
75–84	150,000	14,190	45,389	230,569
85 and over	130,000	14,000	8,848	173,381
All	90,000	5,899	40,363	175,955

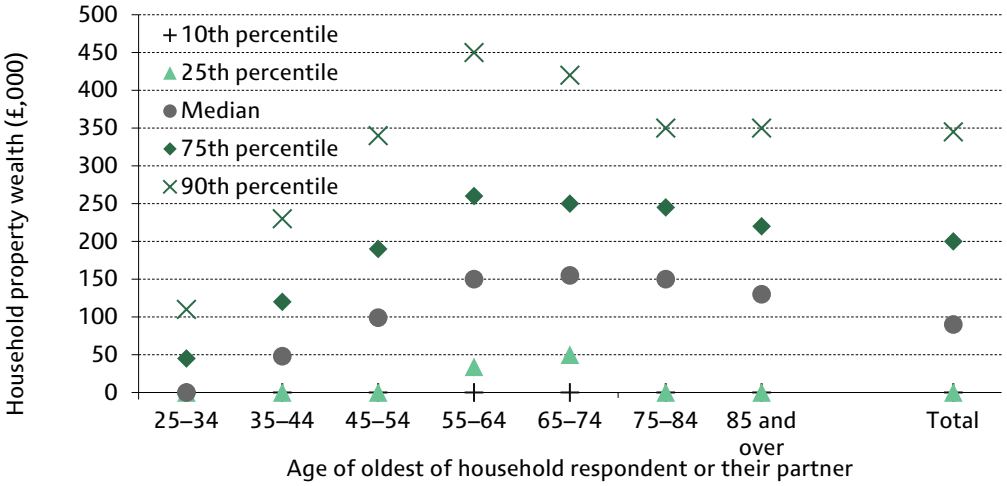
Note: Weighted sample of all households interviewed in 2010–12.

Figure 2.5 gives more detail about the distribution of each of these three types of wealth. It shows, for each age group, selected percentiles (10th, 25th, 50th (median), 75th and 90th) for each of property wealth, financial wealth and pension wealth. The lifecycle pattern described in discussing the percentiles of total wealth (Figure 2.2) is evident, to an extent, in all three parts of the figure, though it is most clear in pension wealth. However, some of this pattern in pension wealth is mechanical, arising from the way in which pension wealth is valued (described in more detail in Section 3.3 in the following chapter). First, the closer working age individuals get to retirement, the greater the value attributed to a given future pension income stream, because the closer they are to receiving that income (i.e. they 'discount' the future income by less). Second, the value of pensions that are in payment is calculated based on the future pension income stream; because older retired households have fewer remaining years over which to receive a given pension income, the value of that annual pension income would be lower.

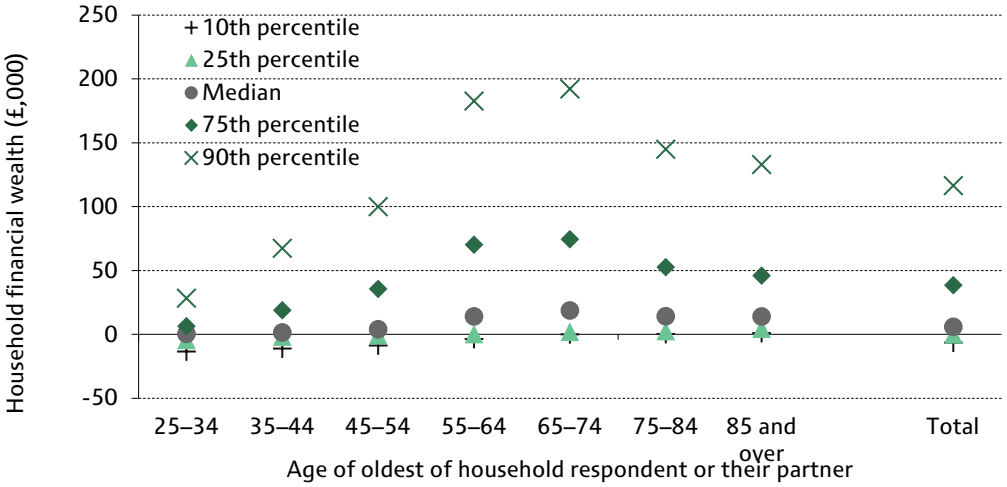
0.7% report having the same value outstanding on their mortgage as the value of their house. Just under half (49.8%) of households aged 25–34 have no gross property wealth.

Figure 2.5. Distribution of the components of household wealth by age

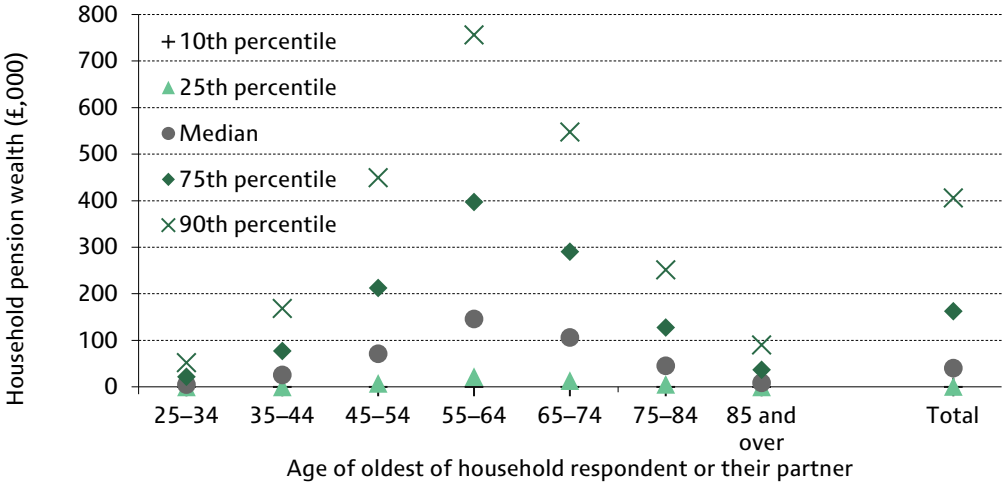
(a) Property wealth



(b) Financial wealth



(c) Pension wealth



Note: Weighted sample of all households interviewed in 2010–12.

Table 2.3 gives Gini coefficients by age and by type of wealth (including figures for total non-pension wealth and total wealth). At all ages financial wealth is the most unequally distributed. The Gini coefficients for this form of wealth are extremely high at younger ages (greater than 1 for the two youngest groups[9]). Except among the youngest age group, pension wealth is the next most unequally distributed, with the distribution of property wealth exhibiting the least inequality. All forms of wealth are more unequally distributed, at all ages, than is net income.

Table 2.3. Gini coefficients by type of wealth and age

	Property wealth	Financial wealth	Non-pension wealth	Pension wealth	Total wealth	Net income
25–34	0.80	1.82	0.87	0.74	0.76	0.32
35–44	0.68	1.08	0.71	0.71	0.65	0.38
45–54	0.62	0.95	0.65	0.68	0.60	0.45
55–64	0.57	0.83	0.59	0.63	0.56	0.41
65–74	0.55	0.78	0.57	0.65	0.56	0.35
75–84	0.54	0.80	0.57	0.68	0.56	0.33
85 and over	0.56	0.73	0.57	0.78	0.56	0.31
All	0.64	0.91	0.67	0.73	0.65	0.40

Note: Gini coefficients for wealth are calculated using the weighted sample of households in the WAS in 2010–12. Gini coefficients for net income are calculated using the Family Resources Survey 2011–12.

[9] When there are many households with negative values, as there are in the case of financial wealth among younger households, a very unequal distribution will give a Gini coefficient of greater than 1.

3. Detailed Composition of Wealth in 2010–12

In this chapter, we describe in detail the composition of property wealth, financial wealth and private pension wealth (respectively) held by households in Great Britain in 2010–12.

3.1 Composition of property wealth

The first column of Table 3.1 gives the proportion of households who hold different forms of property wealth. The table also gives the mean, 25th percentile, 50th percentile (median) and 75th percentile of the self-reported value among those who hold each type of property wealth. Almost 70% of households have some property wealth, with a mean (median) value among holders of £209,000 (£150,000). 68% of households own the property in which they live – the mean value of these residences is £235,000 while the median is £130,000. Other forms of property are held by fewer than 8% of households. Almost 40% of households have some mortgage debt outstanding – the mean of such debts is £109,000 while the median is £82,000. The reason that the percentage of households with gross property wealth is larger than the percentage that have positive net property wealth is that 0.3% of households have negative equity (the value outstanding on their mortgage is greater than the value of their house).

Table 3.1. Prevalence and value of components of property wealth

	% who hold	Value among holders (£s nominal)				% of gross property wealth
		Mean	25th percentile	50th percentile	75th percentile	
Net property wealth	**69.5**	**208,654**	**80,000**	**150,000**	**250,000**	
Gross property wealth	**69.8**	**267,578**	**130,000**	**195,000**	**300,000**	**100.0**
Main residence	68.0	235,389	130,000	190,000	279,998	85.8
Other property wealth	7.7	195,562	50,000	100,000	200,000	8.1
Other houses	3.4	207,100	80,000	130,000	250,000	3.8
Overseas land	2.9	149,669	21,000	70,000	160,000	2.3
Other buildings	0.7	254,195	60,000	150,000	300,000	1.0
UK land	0.9	155,906	10,000	40,000	120,000	0.8
Other property	0.3	139,453	62,500	100,000	170,000	0.3
Mortgage debt	**38.3**	**108,913**	**42,000**	**81,500**	**133,000**	

Note: Weighted sample of all households interviewed in 2010–12.

Figure 3.1 shows the prevalence of property ownership and mortgage debt by age. Homeownership in 2010–12 was, unsurprisingly, lowest among households aged 25–34 and is highest among those aged 55–64. Ownership rates are then slightly lower at the oldest ages – this likely represents a cohort difference in

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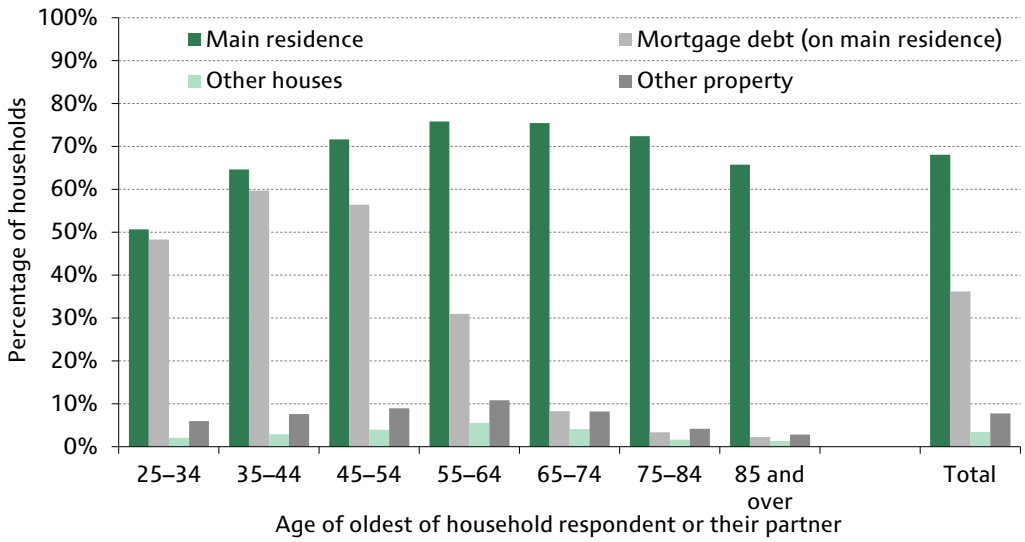
lifetime homeownership (see Banks, Blundell and Smith, 2003) rather than indicating that substantial numbers of those aged 85 and over have moved out of owner occupation. The prevalence of owning property other than a main residence is highest among 55–64 year olds, of whom 10.8% hold some form of 'other property' including 5.5% who own a second home.

Figure 3.1. Prevalence of property ownership and mortgage debt by age



Note: Weighted sample of all households interviewed in 2010–12.

3.2 Composition of financial wealth

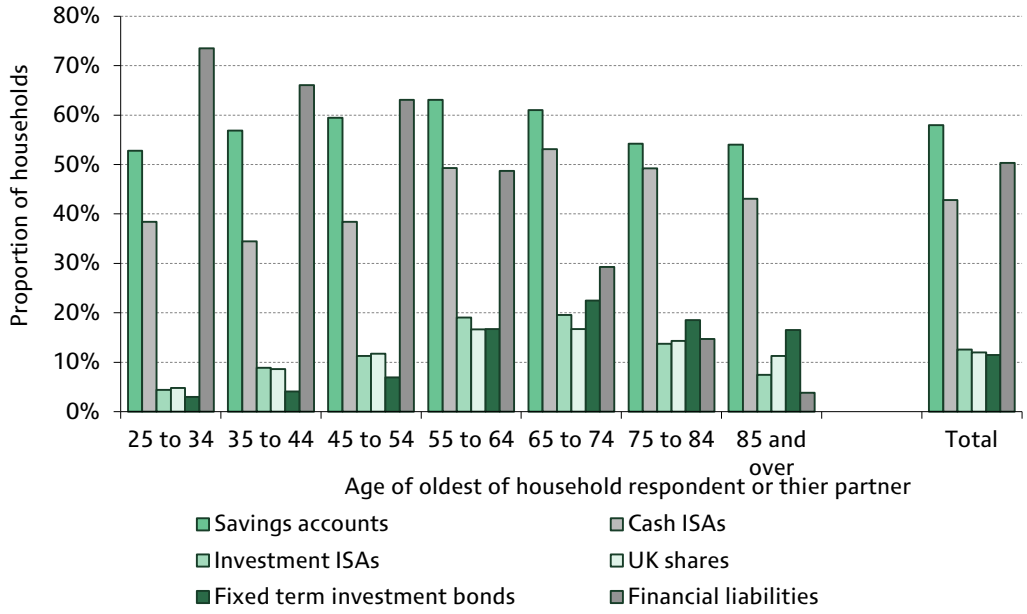
Table 3.2 shows the prevalence and value of components of financial wealth. Over 96% of households hold some financial wealth. The mean (median) level of wealth among those who hold some financial assets is £52,000 (£8,000). The most widespread form of assets held is current accounts, but while over 90% of households hold them, balances in current accounts amount to only 6% of gross financial wealth. Savings accounts and cash ISAs are also widely held – by 58% and 43% of households, respectively – and account for 22% and 12% of gross financial wealth, respectively. Other assets that account for large proportions of gross financial wealth are fixed term investment bonds (11%), UK shares (9%) and investment ISAs (8%).

Figure 3.2 shows the prevalence of selected financial assets and liabilities by age. The incidence of savings accounts and cash ISAs is highest among those of middle age, though differences across ages are not large. The proportion of households holding financial liabilities is highest among younger households.

To explore the correlation between households' financial assets and financial liabilities, Figure 3.3 describes mean gross financial debt by decile of gross financial wealth. Interestingly, it is not those with the lowest levels of financial wealth who, on average, have the highest financial liabilities. Mean financial debts

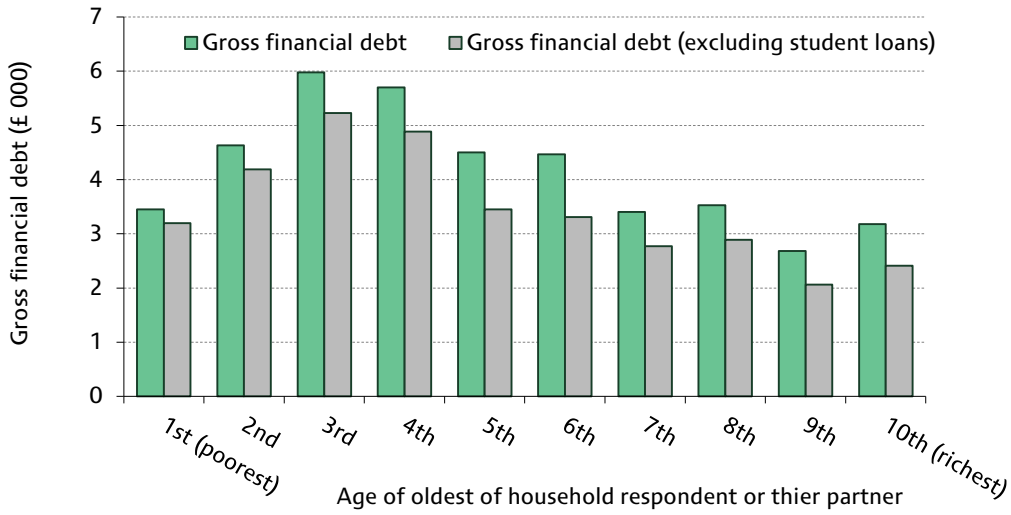
are greatest among those in the third and fourth deciles (at around £5,980 and £5,700, respectively). The mean financial debt of those in the 10% of households with the lowest gross financial wealth is £3,450, only slightly higher than the mean of £3,180 among the 10% of households with the greatest gross financial wealth.

Figure 3.2. Prevalence of financial assets and debt by age



Notes: Weighted sample of all households interviewed in 2010–12.

Figure 3.3. Mean gross financial debt by decile of gross financial wealth



Note: Weighted sample of all households interviewed in 2010–12. Corresponding mean gross financial assets for each decile: 1st, £52; 2nd, £532; 3rd, £1,706; 4th, £4,321; 5th, £9,179; 6th, £17,969; 7th, £34,082; 8th, £62,294; 9th, £121,475; 10th, £481,882.

Table 3.2. Prevalence and value of components of financial assets

	% who hold	Value among holders (£s nominal)				% of gross financial wealth
		Mean	25th percentile	50th percentile	75th percentile	
Financial assets	96.3	52,353	1,188	8,375	41,000	100.0
Current accounts (positive balances)	90.0	3,700	400	1,230	3,500	6.4
Savings accounts	58.0	20,051	700	4,000	15,000	22.2
Cash ISA	42.8	14,218	2,229	7,000	18,000	11.6
National savings products	21.8	9,623	100	600	7,000	4.0
Child other assets	15.9	3,169	300	1,000	3,000	1.0
Child trust fund	15.5	944.1	254	500	1000	0.3
Investment ISA	12.6	32,367	6,000	14,000	35,000	7.8
UK shares	12.0	40,845	1,000	4,000	16,600	9.4
Fixed term investment bonds	11.5	49,763	10,000	20,000	50,000	10.9
Insurance saving products	7.1	42,156	7,000	19,687	42,000	5.7
Employee shares	6.5	35,723	800	3,600	14,000	4.4
Informal savings	5.9	5,987	180	350	1,000	0.7
Unit and investment bonds	5.4	60,518	7,000	20,000	55,000	6.2
Informal loans	4.3	11,275	600	2,500	9,200	0.9
Financial endowments	4.0	36,922	18,000	28,800	45,800	2.8
Overseas shares	1.9	36,628	1,000	3,000	13,000	1.3
UK gilts	1.1	50,585	5,500	16,200	45,000	1.1
Other investments	1.0	146,700	7,000	26,000	100,000	2.8
Unknown-type ISA	0.9	17,748	2,000	6,000	16,000	0.3
Overseas gilts	0.1	76,512	7,300	20,000	100,000	0.2

Note: Weighted sample of all households interviewed in 2010–12.

Table 3.3. Prevalence and value of components of financial liabilities

	% who hold	Value among holders (£s nominal)				% of gross financial liabilities
		Mean	25th percentile	50th percentile	75th percentile	
Financial liabilities	50.3	8,501	845	3,500	10,450	100.0
Credit card balance	24.8	3,722	540	1,850	4,400	21.6
Overdrawn current accounts	18.1	1,063	200	550	1,200	4.5
Formal loans	17.4	9,177	1,460	5,170	10,950	37.3
Hire purchases	13.7	4,401	737	2,250	6,080	14.1
Mail orders	7.2	545.9	80	210	555	0.9
Student loans	6.0	11,921	5,000	9,000	15,000	16.6
Total bill arrears	5.5	943.3	162	400	1000	1.2
Store cards	4.4	453.5	120	280	490	0.5
Informal loans	1.7	7,178	828	2,253	6,300	2.8
Loan arrears	1.0	2,074	180	600	1,200	0.5
Hire purchase arrears	0.2	423.3	42	100	300	0.0

Note: Weighted sample of all households interviewed in 2010–12. Credit card balances are measured as the amount outstanding on the latest monthly statement.

3.3 Pension wealth

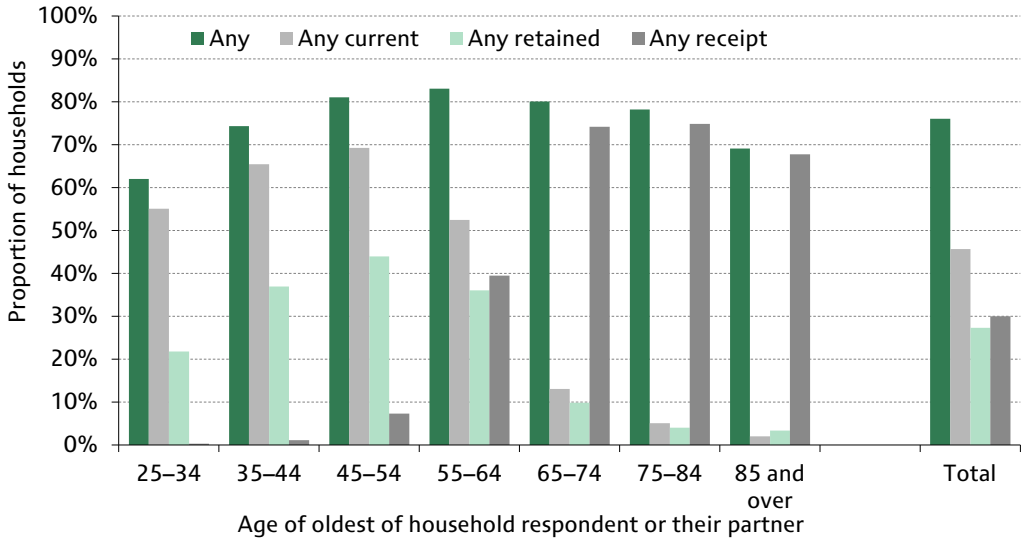
Table 3.4 summarises the coverage of different types of private pension. Specifically, we categorise pensions according to whether they are defined benefit (DB) or defined contribution (DC) and to whether they are current (contributions are still being made, or could still be made), retained (no further contributions are able to be made but the pension is not yet in receipt) or whether they are in payment.[10] Three-quarters of households have some form of private pension coverage. DB pensions are more common than DC pensions: 31% of households have a current DB pension compared to 26% of households having a current DC pension, while 18% of households have a retained DB pension compared to 16% of households having a retained DC pension. The fact that DB pensions are more common than DC pensions may seem surprising given the well-documented decline in DB pensions in recent years. In large part, this is because DB pensions remain the dominant form of pension provision in the public sector. ONS (2014b) also shows that nearly 30% of employees had a DB pension in 2013.

Figure 3.4 shows the incidence of private pensions by age in 2010–12. A majority of households, even those in the 25–34 age group, have some private pension entitlement, with the greatest incidence being for those aged between 55 and 65. Only a small proportion of those aged less than 54 have some pension in receipt, but among those past typical retirement ages, approximately 70% are in receipt of some private pension income.

The concept of pension 'wealth' or the 'value' of pensions is somewhat more complicated than other forms of wealth. For DC pensions (where contributions are paid into a fund that accumulates a return over time, and where that fund is then used to purchase a retirement income stream), the level of wealth is taken to be the value of the accumulated fund. However, for DB pensions (which represent a promise to pay an income stream related to the individuals salary and tenure in the scheme) and pensions that are in receipt (either DB pensions or DC pensions where the individual has already used the accumulated fund to purchase an income stream), there is no personally held 'fund' associated with them. Instead, the value of the pension is calculated as the size of the fund that would be required today to purchase the particular future income stream, valued according to current annuity rates and a discount factor that takes into account interest rates and the number of years from retirement (in the case of pensions that are not in receipt).

[10] Defined benefit pensions are those where pension income is calculated using a formula based on years of tenure in the scheme, earnings, and some accrual fraction. Defined contribution pensions are those where contributions are paid into a fund, which accumulates a return over time, and where the accumulated fund can be used to purchase an annuity to provide an income stream on retirement. For pensions in payment, we do not know whether the pension income comes from a DB pension or an annuity purchased using a DC fund.

Figure 3.4. Incidence of private pensions by age



Note: Weighted sample of all households interviewed in 2010–12.

Table 3.4 describes the distribution of private pension wealth, valued in this way, for each of the types of private pension. Accumulated DB pension rights are typically much more valuable than DC pension rights: median current DB pension wealth is around £60,000, compared to around £18,000 for current DC pension wealth, while median retained DB pension wealth is around £26,000 compared to around £12,000 for retained DC pension wealth.

Table 3.4. Prevalence and value of types of private pensions

	% who hold	Value among holders (£s nominal)				% of pension wealth
		Mean	25th percentile	50th percentile	75th percentile	
Private pension wealth	**76.0**	**194,663**	**24,940**	**82,306**	**228,020**	**100.0**
Current pensions	**45.7**	**130,008**	**15,000**	**47,116**	**139,975**	**40.2**
Current DB pensions	30.7	156,400	19,706	59,859	177,482	32.5
Current DC pensions	25.5	44,327	6,000	17,583	45,924	7.6
Retained pensions	**27.3**	**66,229**	**7,823**	**25,000**	**70,000**	**12.2**
Retained DB pensions	17.5	67,466	9,342	26,347	67,401	8.0
Retained DC pensions	16.2	38,359	3,500	12,360	36,765	4.2
Pensions in payment	**29.9**	**232,463**	**38,544**	**117,838**	**294,215**	**47.0**
Former spouse's pension	**1.4**	**67,115**	**11,352**	**35,981**	**88,285**	**0.7**

Note: Weighted sample of all households interviewed in 2010–12. DC pensions include both employer provided DC pensions (sometime referred to as 'occupational pensions' and individually arranged DC pensions (sometimes referred to as 'personal pensions').

While Table 3.4 indicates a high degree of inequality in private pension wealth (the 75th percentile is nearly 10 times the 25th percentile), some of these differences will be associated with the different age of households. This is true of all types of wealth, but is particularly true of pension wealth because of the way DB pensions and pensions in receipt are valued. For example, if two households were entitled to identical DB pension income streams in future, it would be calculated as being less valuable to the younger household simply because (with positive interest rates) they would need to invest a smaller fund to be able to purchase an equivalent income stream at retirement than the older household who is closer to retirement. Conversely, if two households are currently enjoying the same annual pension income, this would be calculated as being more valuable to the younger household than the older household, as they are expected to live for longer and so have more future years of that pension income to enjoy.

4. Evolution of Household Wealth over Time

We turn now to consider how household wealth evolved over the period 2006–08 to 2010–12 (i.e. the period covered by the first three waves of the WAS). The WAS is a longitudinal survey, with the same households being interviewed every two years, and so we can document the actual evolution of wealth of a particular group of households. In doing so, we focus our attention on households who are observed in all three waves of data, and who do not undergo any compositional changes that might be expected to cause changes in their wealth (e.g. an adult joining or leaving the household). The selection of the sample is explained fully in Appendix A.

4.1 Changes in average wealth

The figures in this section illustrate the evolution of average property, financial and pension wealth over the period 2006–08 to 2010–12, adjusting for inflation (using the Consumer Price Index) to give a sense of how the purchasing power of wealth has changed. The figures are constructed in an analogous way to Figure 1.2: households are grouped into birth cohorts according to the age of the oldest member when first interviewed in 2006–08, and the points plot average wealth against the average age of the group in each wave of the WAS. (Because there have been three waves of the WAS, each group of households is observed three times, at two-year intervals.)

Figure 4.1 describes how mean and median real gross property wealth and real mortgage debt changed over time. For virtually all age groups, mean and median real gross property wealth fell over the period, largely as a result of the decline in house prices over this period (see Figure C.1 in Appendix C). Only among households on average aged 25–34 in 2006–08 did mean gross property wealth increase over this period, as the effect on average wealth of households purchasing homes for the first time outweighed the decline in wealth for households who owned housing and saw the value fall. Considering mortgage debt, this is greater among younger households, and for most age groups average debt fell over time. This would be expected if households are, on average, paying down their mortgage debt. The exception is again the youngest group of households, for which average mortgage debt increased. This would be consistent with many of these households purchasing property wealth for the first time with the assistance of a mortgage (or purchasing a larger property, with an associated increase in their mortgage debt).

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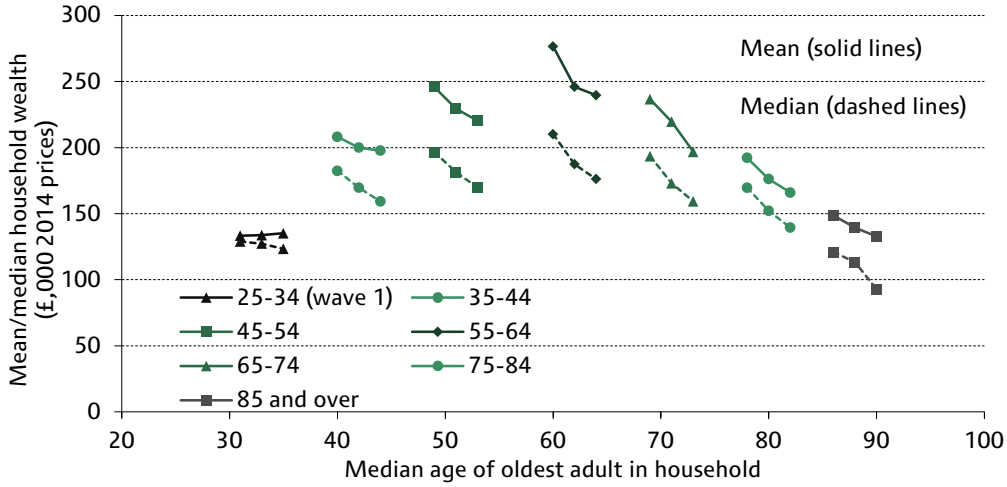
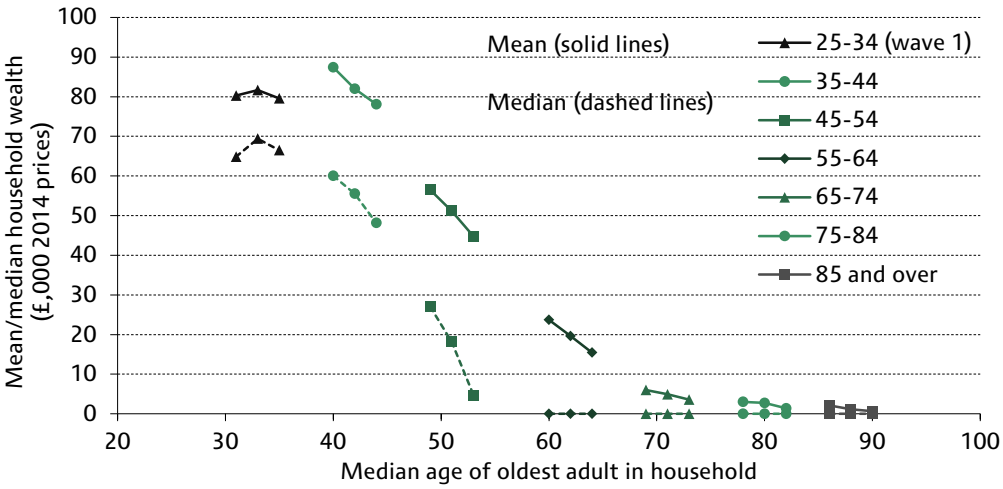
Figure 4.1. Change in average real property wealth 2006–08 to 2010–12

(a) Gross property wealth



(b) Mortgage debt

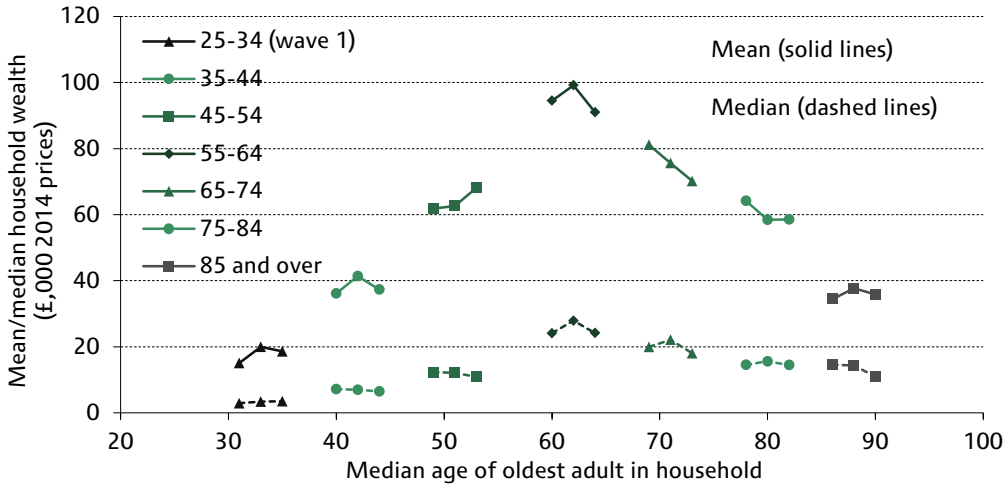


Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

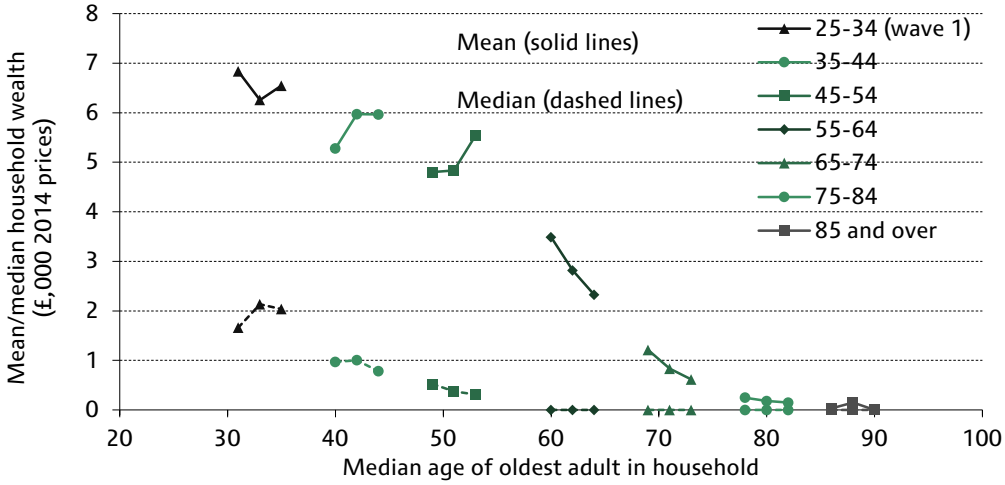
Figure 4.2 illustrates the evolution of average (mean and median) real gross financial wealth and financial debt over the period 2008–10 to 2010–12. Median financial wealth was largely unchanged in real terms over the period for most age groups, while mean gross financial wealth increased among working age households and declined among older households. The size of the difference between the mean and median is indicative of the extent of inequality. The fact that the former increased by more than the latter over the period suggests that wealth increased by much more for some households than for others. The second panel shows a similarly complicated picture for financial debts. With the exception of the group of households aged 25–34 in 2006–08, median debts fell over time (and less than half of households aged 55–64 and over had any financial liabilities). However, while mean debts fell among those aged 55–64 and older in 2006–08, among younger households mean debts increased over time. This is again suggestive of heterogeneity in experiences across households, with

Figure 4.2. Change in average real financial wealth 2006–08 to 2010–12

(a) Gross financial assets



(b) Financial debt



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

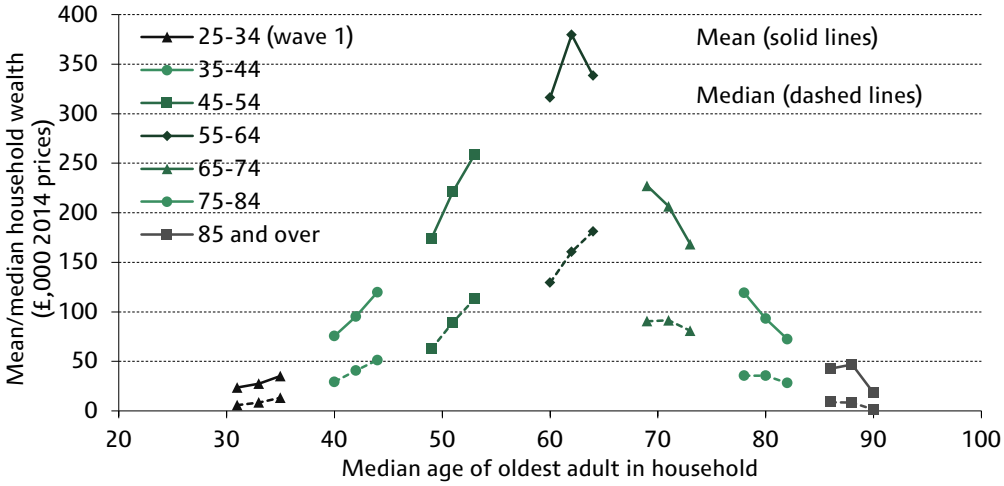
potentially a relatively small number of households experiencing large increases in their level of financial debt.

Finally, Figure 4.3 illustrates the change in average real pension wealth between 2006–08 and 2010–12. Among working age households, there were large increases in pension wealth: for example, mean pension wealth among households who were aged 45–54 in 2006–08 increased by around £89,600, while median pension wealth increased by around £49,300. Figure 4.4 compares the change in mean wealth held in DB and DC pensions that individuals are not yet receiving an income from (i.e. current and retained pensions). From this, it is clear that the large increases in average pension wealth are predominantly driven by large increases in average DB pension wealth.

Among older households, average pension wealth declined over the four-year period. In a sense, this indicates households drawing down their pension wealth in retirement. However, it should be noted that such an effect comes about

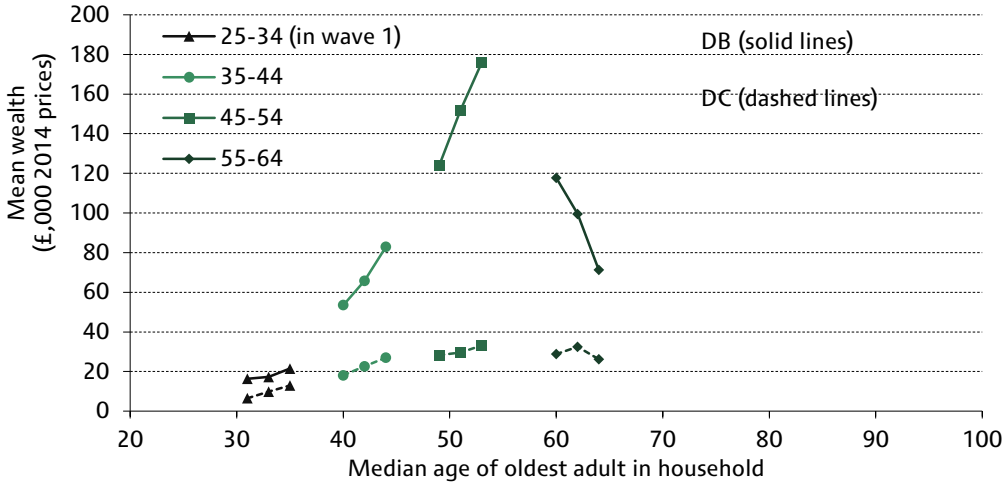
automatically due to the way pension wealth is calculated – after two years, the individual has two fewer years of future pension income to enjoy, and so the value of the future income stream is lower. This does not necessarily imply that the household has used all of this decline in pension wealth (their pension income over the past two years) to fund spending. What has not been spent out of pension wealth would appear in some other form of wealth via saving.

Figure 4.3. Change in average real pension wealth, 2006–08 to 2010–12



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

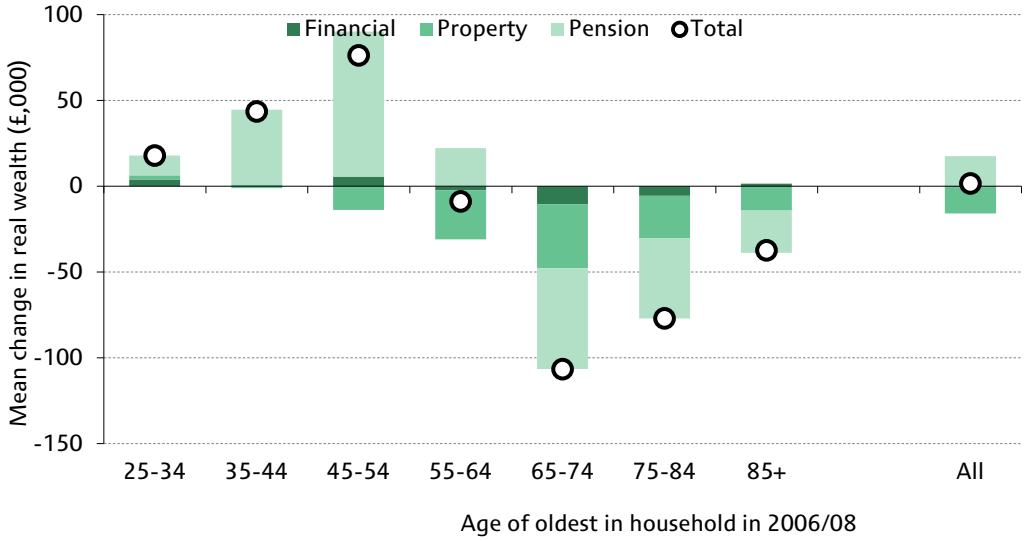
Figure 4.4. Change in real mean defined benefit and defined contribution pension wealth 2006–08 to 2010–12



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

Figure 4.5 summaries the change in mean wealth for each age group by illustrating the level and composition of the change in mean total wealth. Younger age groups saw increases in average total wealth, and a large proportion of the change in average total wealth came from increases in average pension wealth. Older households saw falls in average total wealth, and again pension wealth accounted for the majority of this change, although a large part was also explained by falls in average property wealth.

Figure 4.5. Composition of change in mean real wealth 2006–08 to 2010–12



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

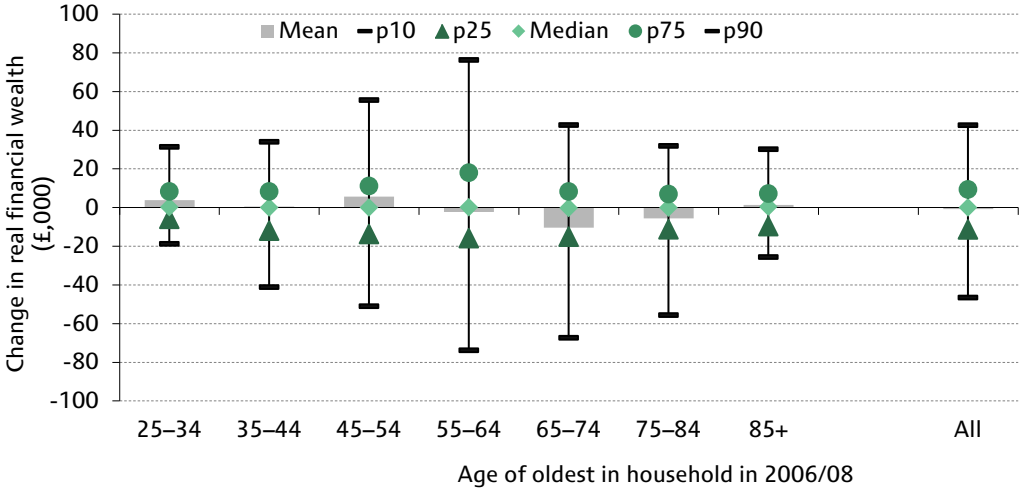
4.2 Distribution of household-level changes in wealth

The graphs in the previous section illustrated how average wealth among groups of households changed over the period. This provides a useful summary, but can disguise the very disparate experiences of households even within the same group – as was indicated in several instances by the different trajectory over time in mean and median wealth. In this section, we briefly illustrate the distribution of household-level changes in real wealth.

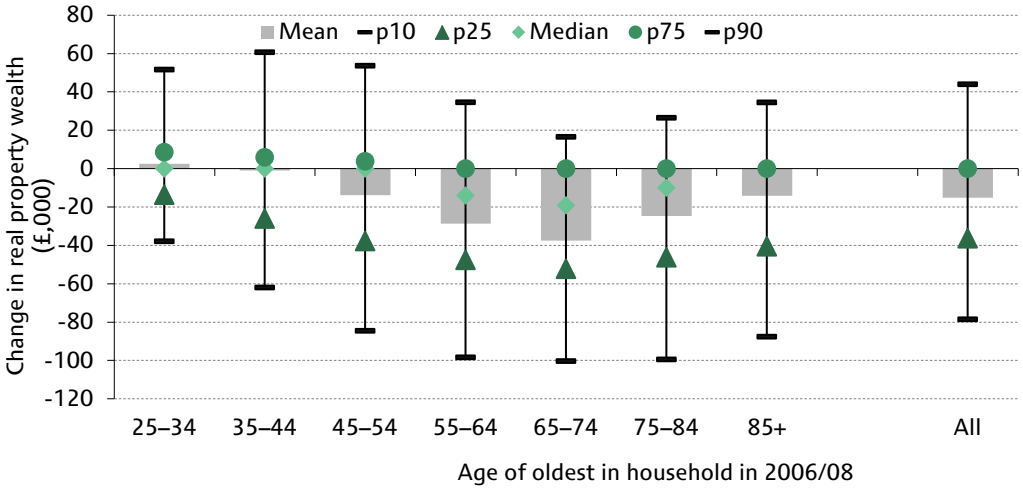
Figure 4.6 shows the distribution of changes in household wealth for each of the components of wealth for each age group. For each age group, there was a wide range of experiences for each type of wealth. For net financial wealth, the median change was close to zero for all age groups, but there was wide variation of changes around this. For example, 10% of 55–64 year olds saw their real net financial wealth increase by more than £76,000 over the four years, while a further 10% saw it fall by more than £73,000. At all ages, the distribution of changes in real net financial wealth appears relatively symmetric around zero change. For net property wealth, the distribution is less symmetric around zero, and the median change at all ages is either zero or negative. However, despite the fact that older households on average saw falls in their wealth, a minority among each age group increased their property wealth. Differences in the distribution of changes between working age households and those of retirement age were most notable for pension wealth. Among working age groups, the majority of households saw increases in their pension wealth, while among retirement age households the majority saw decreases in their pension wealth. However, a significant minority of working age households saw falls in wealth, while some retirement age households saw pension wealth increase.

Figure 4.6. Distribution of change in real household wealth

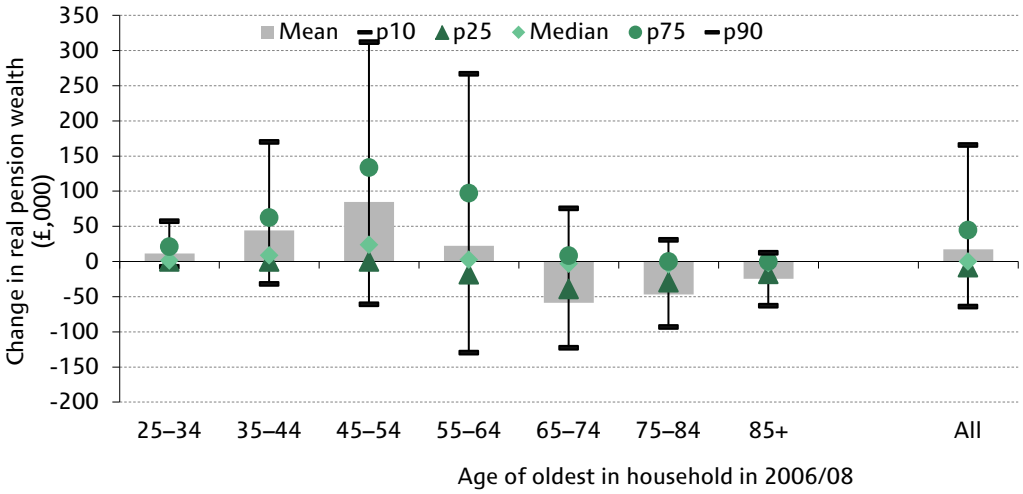
(a) Net financial wealth



(b) Net property wealth



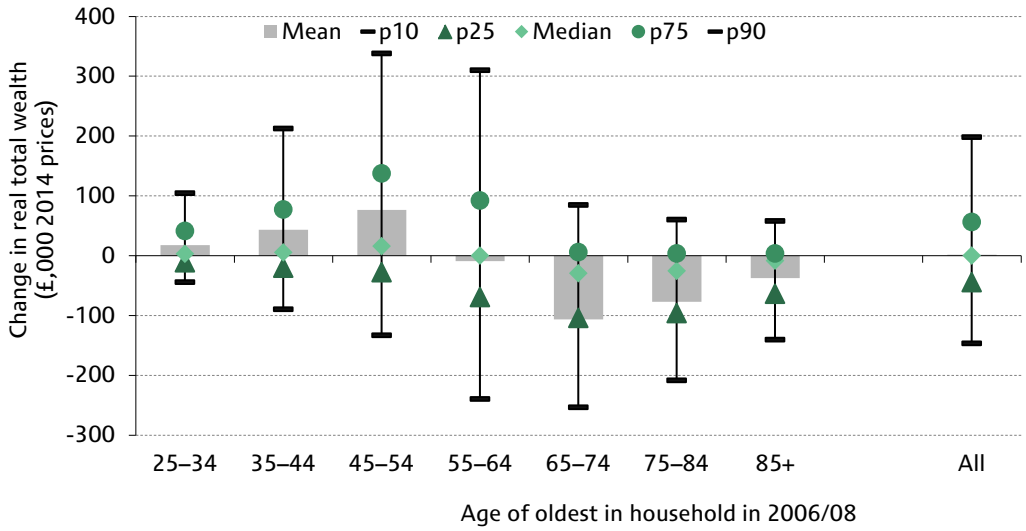
(c) Net pension wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

Figure 4.7 shows the distribution of changes in total household wealth for each age group in absolute terms. Again, the figure demonstrates a wide range of experiences within age groups. While, at both the mean and median, younger households saw total wealth increase, many households in these age groups saw wealth fall. For example, among households aged 45–54, the median change in wealth was £16,000, but a quarter of households in this age group saw wealth fall by more than £69,000. For older age groups, median changes in wealth were negative, but more than a quarter of households in each age group saw total wealth increase.

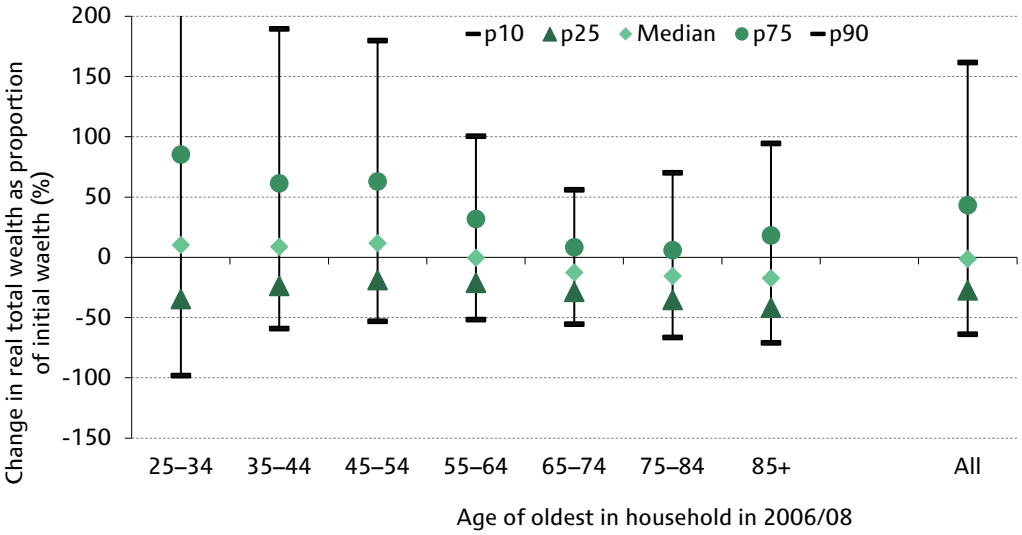
Figure 4.7. Distribution of absolute change in real household total wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

Figure 4.8 shows the distribution of changes in total household wealth as a proportion of initial wealth. We exclude households that initially had negative wealth, because for these households the percentage change in wealth is difficult to interpret. This does mean we exclude a sizeable percentage (20%) of the youngest age group, but smaller percentages of older age groups. Despite seeing smaller absolute changes in total wealth, younger households tended to see larger proportionate changes due to their smaller initial level of wealth. 25% of 25–34-year-old households saw their total wealth increase by more than 85%. Younger households (with positive initial wealth holdings) were also more likely than older households (with positive initial wealth holdings) to see large percentage falls in their wealth. 10% of 25–34-year-old households saw their wealth fall by more than 98%, including 8.4% that went from having positive to negative net wealth (their wealth fell by more than 100%).

Figure 4.8. Distribution of percentage changes in real household total wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details), excluding households with negative or zero wealth in wave 1. The percentages of households with negative or zero wealth in wave 1 are as follows (sample sizes once these households are excluded in brackets): 25–34, 20.0% (699); 35–44, 9.8% (1,716); 45–54, 7.4% (1,770); 55–64, 3.7% (2,288); 65–74, 1.8% (2,129); 75–84, 2.3% (1,154); 85 and over, 1.2% (164). Mean is not reported as it is heavily influenced by outliers (small absolute changes in wealth can result in extremely large proportionate changes for those with low levels of wealth). P90 for households aged 25–34 is not reported due to scale, but is +365%.

5. Active and Passive Saving

The changes in household wealth described in the previous chapter are the result of a number of forces that move net wealth in different directions. For example, changes in net property wealth result could arise from changes in house prices, upsizing or downsizing gross housing, buying or selling other property, and/or changes in mortgage debt. Similarly, changes in financial wealth could arise from households enjoying good or bad returns on their investments, or from spending more or less than current income. Changes in pension wealth could arise from changes in future pension income, or from changes in the value placed on an unchanged future income stream. These numerous, and potentially competing, causes of a change in wealth can make it hard to draw out particular messages; for example, whether the decline in gross property wealth among older households is the result of changes in house prices over this period, or whether older households are spending their property wealth in retirement.

In this chapter, therefore, we attempt to distinguish between: (a) changes in wealth due to saving out of current income or spending wealth (or transfers from another component of wealth), referred to as 'active' saving, (b) changes in wealth as a result of returns on existing capital, referred to as 'passive saving', and (c) changes in wealth as a result of the way future income is valued (which is only relevant in the case of pension wealth), referred to as 'valuation' changes.

In the following sections, we decompose changes in financial wealth, property wealth and pension wealth in turn. In each case, we start by describing our methodology for decomposing the change in wealth, then present our estimates, and finally present the results of analysis exploring the association between the estimated changes in wealth and household characteristics. Unlike the rest of this report, in this section we focus on decomposing the change in *nominal* wealth (i.e. not adjusted for inflation), as the returns on existing capital that we class as passive saving are nominal returns.

5.1 Financial wealth

Methodology

We characterise all the changes in financial debt as active saving. In terms of gross financial wealth, active saving is defined as the amount a household saves or invests in a particular financial asset over time (and can be negative if the household withdraws from a particular asset), while passive saving is the interest or investment return that would have accrued if the household made no additions or withdrawals from the asset over the period in question.

In Appendix B, we describe in detail our method for decomposing household wealth changes into active and passive saving. In summary, we estimate passive saving for each household using their reported asset holdings and average returns indices for savings and investment assets. We can then estimate active

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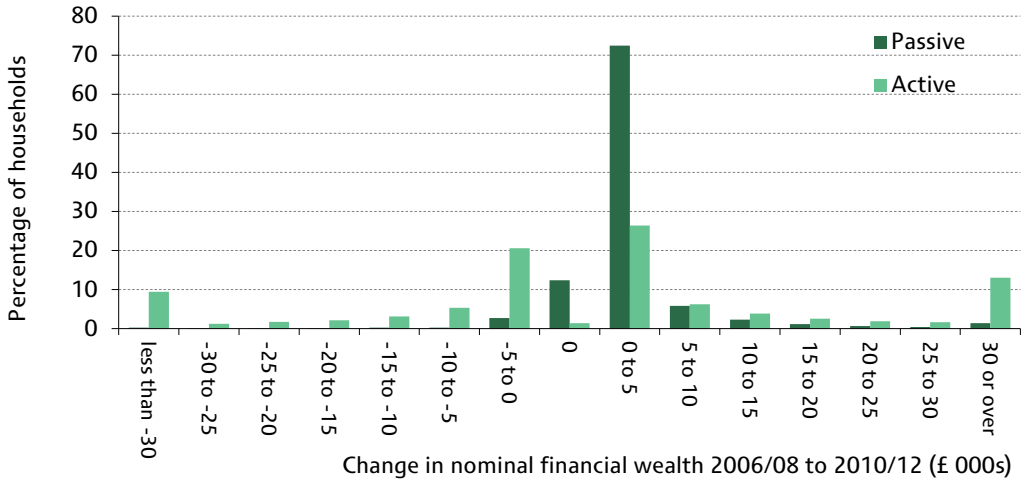
saving for each asset type by deducting the estimated passive change in wealth from the actual change in the reported level of wealth held in that asset. We sum across asset types for each household to obtain their total active and passive saving in gross financial wealth.

Distribution of active and passive financial saving

The distribution of estimated active and passive saving in financial wealth is described in Figure 5.1. Passive changes are generally estimated to be small: 12% of households are estimated to have seen no passive change in their financial wealth at all, while 73% of households are estimated to have seen passive increases of less than £5,000 over the four years. This reflects that the majority of financial assets are held in safe assets, which saw small positive returns (if any) over the period, and that few households hold risky financial assets, such as shares that saw much more volatile returns.

Figure 5.1. Active and passive changes in household financial wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

The distribution of estimated active household financial saving is much wider. Almost all households reported a change in their financial wealth between 2006–08 and 2010–12 and so are estimated to have either actively saved (55% of households) or actively dissaved (43% of households). However, many households are estimated to have done relatively small amounts of active saving or dissaving: 26% of households are estimated to have saved less than £5,000 while 21% of households are estimated to have dissaved by less than £5,000.

Who saves in financial wealth

What explains the different experiences of different households? In this section, we consider how changes in financial wealth are associated with household characteristics. In Table 5.1, we start by describing how the prevalence of positive saving, and the average change in household financial wealth, vary by age. There is little apparent age pattern in the proportion of households with positive active saving, or who experience positive passive changes in their

Table 5.1. Change in nominal net financial wealth, by age group

Household age in wave 1	Overall		Active saving		Passive saving	
	Proportion positive saving	Mean change (£)	Proportion positive saving	Mean change (£)	Proportion positive saving	Mean change (£)
25–34	58.4%	4,828	56.6%	3,911	87.6%	918
35–44	55.0%	11,192	53.2%	8,135	84.6%	3,056
45–54	56.8%	21,040	54.5%	16,791	83.2%	4,249
55–64	59.3%	16,659	57.0%	9,639	86.4%	7,019
65–74	55.6%	8,056	53.1%	1,970	87.9%	6,086
75–84	54.4%	5,064	53.1%	–537	87.0%	5,601
85 and over	57.2%	7,565	55.4%	4,835	85.5%	2,731
Total	56.8%	12,162	54.7%	7,310	86.0%	4,852

Note: The proportion with negative saving (overall, active or passive) is not equal to 100% less the proportion with positive saving, as a small number of households have zero saving. Weighted sample of stable single benefit unit households (see Appendix A for details).

wealth. There are, however, differences in the average amounts saved by age. Working age households, on average, saved more actively in financial wealth than retired households, particularly so among households aged 45–54 (among whom the mean active change in wealth was around £16,800, compared to £3,900 among households aged 25–34 and £2,000 among households aged 65–74). In contrast, older households are estimated to have experienced greater passive increases in their wealth. In large part, this arises from the fact that older households on average have higher levels of financial wealth, and so a given percentage return on financial wealth would imply a greater absolute change in wealth.

Table 5.2 presents the results of regression analysis exploring the association of a number of household characteristics with the mean level of active and passive changes in net financial wealth. The age profile of the level of active saving described in Table 5.1 remains even after controlling for other characteristics: for example, on average, active saving in net financial wealth is around £22,000 lower among households aged 65–74 in 2006–08 than among households aged 45–54. However, there is now little evidence of the age profile in passive saving found in Table 5.1 – if anything, older households have lower passive increases in wealth than younger households, all else equal. This is most likely because we are now separately controlling for the level of wealth, and the fact that households have higher levels of wealth (rather than that they are older) that means that they enjoy greater passive increases in wealth (in absolute terms, at least).

The results presented in Table 5.2 also show that higher income households are estimated to save more actively than lower income households (£27,000 more over the four years, comparing the highest income fifth of households with the lowest income fifth of households), and households without children on average actively save more than households with children.

Table 5.2. Characteristics associated with changes in nominal net financial wealth

Wave 1 household characteristics	Mean active change in wealth (£)	Mean passive change in wealth (£)	Mean total change in wealth (£)	Median total change in wealth as % of income in 2010–12
Wealth quintile				
1st (poorest)	(ref.)	(ref.)	(ref.)	(ref.)
2nd	98	456	554	1.14
3rd	–1,696	615	–1,081	1.27
4th	2,830	2,073**	4,903	2.64
5th (richest)	–17,460**	9,598***	–7,862	2.91
Income quintile (w3)				
1st (poorest)	(ref.)	(ref.)	(ref.)	(ref.)
2nd	2,900	447	3,347	1.86
3rd	–980	1,074	94	2.28
4th	8,989	1,144	10,133	4.17
5th (richest)	26,602***	7,480***	34,082***	7.68**
Age group				
25–34	–12,193	–3,678***	–15,871*	–1.89
35–44	–7,181	–1,017	–8,199	–1.63
45–54	(ref.)	(ref.)	(ref.)	(ref.)
55–64	–11,621	792	–10,829	4.41*
65–74	–22,470**	–1,508	–23,978**	3.80
75–84	–22,947**	–1,451	–24,398**	3.91
85 and over	–16,638	–3,553	–20,192	8.69
Household type				
Single household	12,640*	3,237***	15,877**	3.14
Couple without children	13,404**	4,295***	17,699***	3.15
Single parent with children	5,308	3,540***	8,848	2.63
Couple with children	(ref.)	(ref.)	(ref.)	(ref.)
Employment status				
All adults employed	(ref.)	(ref.)	(ref.)	(ref.)
One adult employed, one adult not	–3,900	1,682*	–2,218	2.11
All adults not employed	–7,032	1,592	–5,440	–0.17
At least one adult self-employed	445	420	866	–0.48
At least one adult retired	13,661	2,269*	15,930*	–2.60

Education level				
No qualifications	(ref.)	(ref.)	(ref.)	(ref.)
Other level	–73	660	586	0.07
Degree or above	11,113	2,717***	13,830*	4.74*
Constant	1,661	–5,027***	–3,366	–3.07
Observations	10,576	10,576	10,576	10,443
R^2	0.004	0.053	0.007	

Note: Weighted sample of stable single benefit unit households (see Appendix A for details). Column 4 excludes households with income in wave 3 of less than £5,000. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively. Household characteristics are in 2006–08, with the exception of income, which was not collected comprehensively until 2010–12.

The final column of Table 5.2 explores the association of household characteristics with the change in net financial wealth expressed as a percentage of income in 2010–12. This aims to capture the potential role of income in savings behaviour somewhat more directly than simply controlling for household income quintile. For example, the coefficient 4.7 for households with a degree indicates that after controlling for other characteristics, these households saw an increase in their net financial wealth over the four years expressed as a proportion of their annual income that is 4.7 percentage points greater than the increase in the net financial wealth experienced by those with no qualifications expressed as a proportion of their income. This analysis suggests that wealthy households on average saved a larger proportion of their income in financial assets over this period than less wealthy households, and higher income households saved a greater proportion of their income than lower income households.

5.2 Property wealth

Methodology

We characterise all the change in mortgage debt as active saving. With regard to gross housing wealth, one can think of a change in wealth as arising from three sources: house price growth that would have occurred if households maintained the same property assets and did nothing to improve them; price changes from home improvements undertaken; and the net change from buying or selling property. The first of these we characterise as passive saving, and the latter two we characterise as active saving.

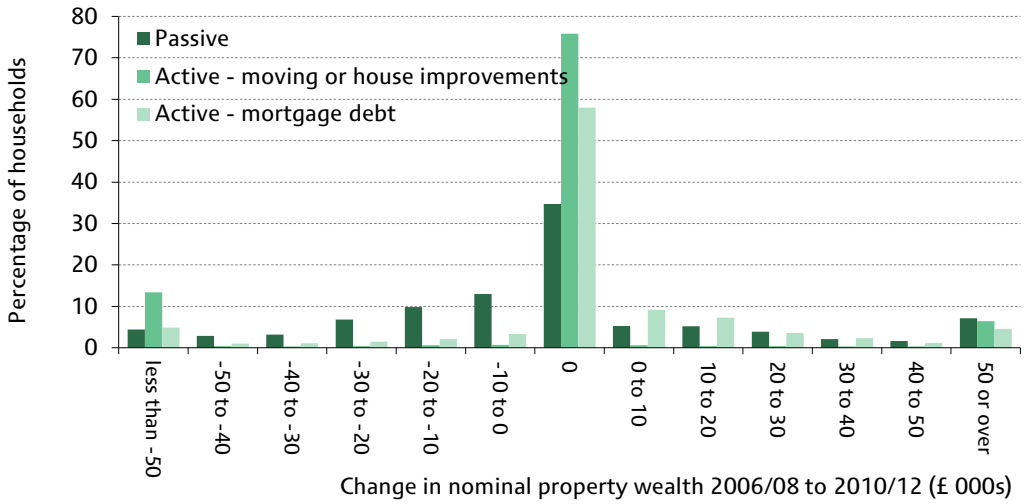
In Appendix C, we provide a full discussion of the method used to estimate active and passive saving in gross property wealth for each household. In summary, for households who moved house or who reported extending their main residence between interviews, we estimate passive saving in the main residence using their self-reported property wealth in the initial wave and the change in average property prices (as measured using a property price index) between their interviews. Active saving is then estimated as the difference between the change in reported gross property wealth and the estimated passive saving. For

households who did not undertake such activities between interviews, we assume that they made no active change to their gross primary property wealth holdings over this period, and that all the reported change in values is passive saving (or dissaving) resulting from the change in asset prices. For households with non-primary housing wealth, we estimate passive saving using the self-reported wealth in the initial wave and the change in average UK house prices between interviews. Active saving is estimated as the difference between the change in self-reported non-primary housing wealth and this passive saving.

Distribution of active and passive saving in property

Figure 5.2 describes the distribution of estimated active and passive saving in property wealth, showing separately active saving in gross property wealth and active saving coming from changes in mortgage debt. A quarter of households (and a third of those who own property in at least one wave of the WAS) had active saving in gross property wealth: 11.4% of households increased the value of their property holdings, while 21.7% of households reduced the value of their property holdings. This includes both households that we estimate to have moved in a way that changed their gross property wealth and those we estimate to have undertaken active saving or dissaving in property other than their main home, such as through buying or selling a second home. 38.6% of households reduced their mortgage debt over the four-year period, while 19.0% of people increased their mortgage debt.

Figure 5.2. Active and passive changes in nominal property wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

All homeowners saw passive changes in their housing wealth over this period due to movements in house prices. Over this period, house prices were very volatile, and so households in different regions and those interviewed at different times in the two-year period of interviews would have seen very different passive changes in their property wealth. For example, a homeowning household interviewed in the North East in February 2008 would have seen regional house prices fall 29% between waves 1 and 3; in contrast, a household in Scotland

interviewed in July 2006 would have seen a 35% increase, on average. The distribution of estimated passive changes in property wealth is shown in Figure 5.2: just over a quarter of households are estimated to have experienced positive passive changes, whilst 40% are estimated to have seen negative passive changes.

Who saves in property wealth

In this section, we consider how changes in property wealth varied across households with different characteristics. As noted previously, the volatility of house prices over this period means that differences in households' passive changes in wealth are predominantly driven by the timing of their interview. We therefore focus on exploring the association between household characteristics and our estimates of active saving (and the form that active saving takes).

Table 5.3 summarises the proportion of households, grouped according to their age in 2006–08, who undertook various activities that would lead to them being estimated to have positive or negative active changes in their property wealth. This indicates that positive active saving in property wealth is slightly more common at younger ages than older ages, largely due to greater proportions of households paying down mortgage debt and extending their homes. Moving home in a way that we estimate would increase gross housing wealth (purchasing a first home or 'upsizing'[11]) is most prevalent among households aged 25–34 in 2006–08, and falls with age. Relatively few households moved over this period in a way that we estimate would reduce gross housing wealth (i.e. 'downsizing'), although the proportion is slightly higher at older ages – for example, 3.2% of households aged 75–84 in 2006–08, compared to 2.4% of households aged 55–64.

The results of regression analysis exploring the association of household characteristics with the mean level of active saving in property are presented in Table 5.4. Relatively few household characteristics are associated in a statistically significant sense with the overall level of active saving: those in the highest income quintile are estimated to have active saving in property wealth over this period around £23,000 greater than those in the lowest income quintile, while single households (particularly those with children) are estimated to have lower active saving than couple households. Perhaps surprisingly, those in the highest wealth quintile are estimated to have lower levels of active saving than those with lower levels of wealth.

[11] We define 'upsizing' as moving house to a property that is greater in value than we estimate that the original property would be worth at that time, given the previous reported value of the original property and the change in average house prices over the period in the region in which the original property is situated. Equivalently, 'downsizing' is defined as moving house to a property that is of lower value than we estimate the original property would be worth at that time.

Table 5.3. Prevalence of types of active saving, by age group

Household age in w1	% with positive active saving	Proportion who:		
		Reduced mortgage debt	Extended primary home	Moved and 'upsized'
25–34	45.3%	37.1%	10.4%	9.4%
35–44	50.2%	45.3%	15.2%	3.7%
45–54	46.1%	43.0%	11.0%	2.7%
55–64	33.0%	25.3%	9.9%	1.9%
65–74	14.8%	7.2%	6.8%	0.7%
75–84	9.2%	3.1%	3.4%	1.2%
85 and over	7.8%	3.6%	3.0%	1.8%
Total	32.6%	26.5%	9.6%	2.7%

Household age in w1	% with negative active saving	Proportion who:	
		Increased mortgage debt	Moved and 'downsized'
25–34	21.5%	27.6%	4.1%
35–44	23.0%	24.3%	2.3%
45–54	22.3%	16.6%	1.9%
55–64	17.1%	6.8%	2.4%
65–74	14.5%	3.0%	2.4%
75–84	12.0%	2.0%	3.2%
85 and over	9.0%	1.2%	3.6%
Total	18.2%	12.0%	2.5%

Note: Rows will not sum to the totals given because (a) households can do multiple things (e.g. reducing mortgage debt and moving and 'downsizing') and (b) households may also be estimated to have active saving or dissaving due to changes in reported non-primary housing wealth. Weighted sample of stable single benefit unit households (see Appendix A for details).

The final three columns of Table 5.4 explore the association of household characteristics with different sources of active saving in property wealth. As might be expected from the results shown in Table 5.3, there is a strong age pattern in active saving in property wealth through changes in the gross value of the main residence, even after controlling for other characteristics. For example, mean active saving in the primary residence is around £9,000 higher for those aged 25–34 than for those aged 45–54, and around £6,000 lower for those aged 75–84 than for those aged 45–54. The average level of active saving through changes in the gross value of the primary residence is also higher among those in the highest income quintile than among those with lower incomes.

Table 5.4. Characteristics associated with level of active saving in property

Wave 1 characteristics	Mean total active saving (£)	Of which: Mean change in mortgage debt (£)	Mean active change in gross value of main residence† (£)	Mean active change in value of other gross property (£)
Wealth quintile				
1st (poorest)	(ref.)	(ref.)	(ref.)	(ref.)
2nd	–3,998	–361	–3,053	–584
3rd	–6,733	325	–5,352***	–1,706
4th	–8,173	3,924	–4,420**	–7,677
5th (richest)	–31,490***	6,605**	–3,067	–35,028***
Income quintile (in w3)				
1st (poorest)	(ref.)	(ref.)	(ref.)	(ref.)
2nd	–615	838	–426	–1,027
3rd	3,258	1,147	839	1,272
4th	8,603	1,632	899	6,072
5th (richest)	23,279***	–1,823	6,554***	18,548**
Age group				
25–34	859	–12,850***	9,376***	4,333
35–44	6,200	–4,338*	5,210***	5,328
45–54	(ref.)	(ref.)	(ref.)	(ref.)
55–64	572	2,563	–2,293	302
65–74	–15,450*	3,946	–4,807*	–14,589*
75–84	–5,521	2,673	–5,946**	–2,248
85 and over	–4,183	3,650	–6,220	–1,612
Household type				
Single household	–10,589*	2,882	–2,574	–10,897*
Couple without children	584	3,154	1,670	–4,240
Single parent with children	–17,803**	8,674***	–9,800***	–16,677**
Couple with children	(ref.)	(ref.)	(ref.)	(ref.)
Employment status				
All adults employed	(ref.)	(ref.)	(ref.)	(ref.)
One adult employed, one adult not	–7,192	–2,418	–3,978**	–795
All adults not employed	–1,584	–2,943	–735	2,094
At least one adult self-employed	–1,821	–1,902	–2,040	2,122
At least one adult retired	8,351	–6,099**	–362	14,812**
Education level				
No qualifications	(ref.)	(ref.)	(ref.)	(ref.)
Other level	542	–368	–1,884	2,794
Degree or above	7,978	–3,487	2,369	9,096
Constant	13,304	1,662	8,873***	2,769
Observations	10,578	10,578	10,578	10,578
R^2	0.006	0.006	0.016	0.005

Note: †Active change in the gross value of the main residence is zero for those who did not move or extend their homes over the period. Weighted sample of stable single benefit unit households (see Appendix A for details). ***, ** and * denote statistical significance at the 1%, 5% and 10% levels, respectively. Household characteristics are in 2006–08, with the exception of income, which was not collected comprehensively until 2010–12.

On average, younger households are also estimated to see lower active saving from changes in mortgage debt than older households. Table 5.3 illustrated that both increasing and reducing mortgage debt over time was more common among younger households than older households. However, the increases in mortgage debt (which are typically associated with purchasing property for the first time or 'upsizing') are on average larger than the reductions in mortgage debt (which are typically following a repayment schedule), and so the net average effect for younger households is lower active saving though reducing mortgages than older households.

5.3 Pension wealth

Changes in pension wealth on average account for the vast majority of the change in household total wealth over the period 2006–08 to 2010–12 (shown in Chapter 4), and among working age households these changes were largely driven by changes in the value of DB pension wealth. It is particularly important to decompose what is driving these pension wealth changes, because the way pension wealth is calculated (as described in Section 3.3) means that such changes do not necessarily imply that annual pension incomes have changed – changes in DB pension wealth and wealth from pensions in receipt could be driven by changes in annuity rates, changes in discount rates, or changes in the number of (remaining) years over which pension income will be received.

Methodology

The potential drivers of changing wealth for each type of pension are summarised in Table 5.5. Unfortunately, the data in the WAS on employee and employer contributions are incomplete, and therefore it is not possible to separate out changes in current pension wealth that arise from contributions made by the individual, from contributions made by the employer (either explicitly or implicitly), or from the passive return received on an accumulated fund. In other words, we cannot conduct the same decomposition between 'active' and 'passive' saving as we did for financial and property wealth.

However, we can distinguish the changes in pension wealth that arise due to changes in future pension entitlements (either the annual pension income or the lump sum on retirement) from changes due to the way a given future income stream is valued – in other words, changes that arise from changes in annuity rates or discount rates. This decomposition is not relevant for DC pensions, for which wealth is calculated simply as the accumulated fund, nor is it relevant for retained DB pensions (as entitlement in these pensions should not be changing and all the change in wealth will be due to a change in the valuation of that entitlement). Our focus is therefore on decomposing the change in current DB pension wealth.

Our methodology for decomposing the change in current DB pension wealth is described in Appendix D. Essentially, we estimate what wealth would have been

Table 5.5. Drivers of changes in pension wealth

Pension type	Potential reasons for changing pension wealth
Current DB pensions	Individual contributions, implicit employer contributions, change in annuity rates, change in discount rates
Current DC pensions	Individual contributions, employer contributions, fund return
Retained DB pensions	Change in annuity rates, change in discount rates
Retained DC pensions	Fund return
Pensions in payment	Change in annuity rates, fewer years of future income
Former spouse's pension	Fund return

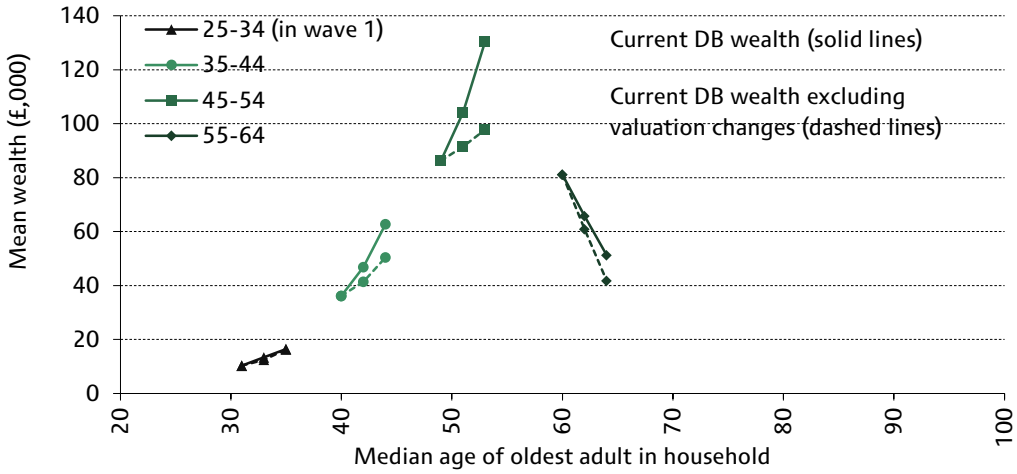
at each interview if there had been no changes in annuity and discount rates since 2006–08. We then define the 'non-valuation change' as the difference between this estimated wealth in the current wave and this estimated wealth in the previous wave. The 'valuation change' is defined as the difference between the actual change in pension wealth and the estimated 'non-valuation change'.

Changes in current DB pension wealth with and without 'valuation changes'

The solid lines in Figure 5.4 show the change in mean current DB pension wealth among households in each age group (in nominal terms). The dashed lines show what would have happened to mean current DB pension wealth if there were no changes to annuity rates or discount factors (which take into account both interest rates and the number of years from retirement) since 2006–08 (i.e. if the only changes in pension wealth were through changes in either pension income or the lump sum expected at retirement). Average DB pension wealth would have grown more slowly for each age group up to the 45–54 year old age group if there were no 'valuation changes' in pension wealth, and would have fallen more quickly for the 55–64 year old age group. Valuation changes tended to increase pension wealth over the period, as the majority of households saw positive changes to annuity factors and falls in discount factors (even with no change in the interest rate, discount factors could fall because of individuals being four years closer to retirement in 2010–12 than in 2006–08, so pension values are discounted by four fewer years). Other than for the 55–64 year old age group – many of whom started drawing their pension over the period – excluding valuation changes still leaves positive changes in average DB pension wealth, as would be expected from households increasing their years of tenure in their pension schemes.

As with the other forms of wealth, changes in average DB pension wealth mask significant heterogeneity of experiences. Figure 5.5 shows the distribution of

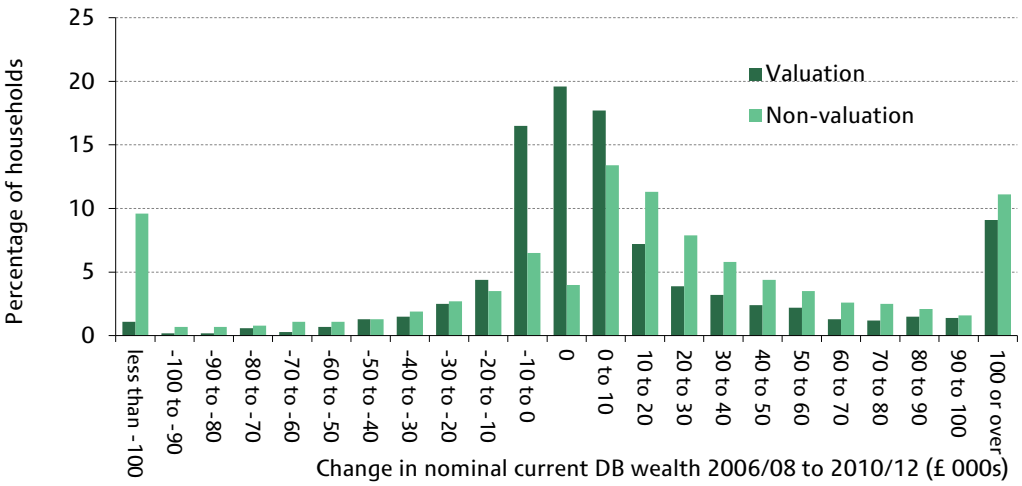
Figure 5.4. Actual mean current DB pension wealth and mean current DB wealth excluding 'valuation changes' in wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

'valuation' and 'non-valuation' changes in current DB pension wealth between 2006–08 and 2010–12, for working age households with a DB pension in at least one wave of the WAS. For the vast majority of households, both 'valuation' and 'non-valuation' changes in DB pension wealth were positive: just under two-thirds of households saw positive valuation changes (excluding those that saw no valuation changes), whilst just over two-thirds saw positive changes in future pension entitlements. For some households, these changes were substantial: around 11.9% of households saw 'non-valuation' changes worth more than £100,000, and 10.4% saw 'valuation' changes worth more than £100,000. The households seeing negative 'valuation' changes in wealth may have done so either due to seeing a fall in annuity rates between their interview dates, or a rise in the discount rate, or because of an increase in their expected retirement age.

Figure 5.5. Distribution of 'valuation' and 'non-valuation' changes in current DB pension wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details) that had a current DB pension in at least one wave of the WAS.

Whose pension wealth increased

Table 5.6 presents the results of regression analysis exploring the association of a number of household characteristics with the change in current DC pension wealth, and the change in current DB pension wealth, excluding that arising from valuation changes. The sample is restricted to working age households with these pensions in at least one of the three waves of the WAS, so that we can calculate the change in wealth.

The change in DC pension wealth is found to be increasing with household income. On average, 25–34 year olds saw the largest increase in wealth, and 55–64 year olds saw the smallest increases. The change in DC pension wealth is, however, found to be decreasing with household wealth. This is likely due to passive changes in DC pension wealth over this period, as stock price falls associated with the financial crisis and recession would have reduced the value of accumulated DC pension funds. Finally, having an individual in the household who is self-employed is associated with a significantly greater increase in DC pension wealth, and having an individual who is retired is negatively associated with the change in DC pension wealth.

Changes in current DB pension wealth (excluding valuation changes) are also found to be increasing with income. Differences between age groups are similar to those found for DC wealth: 25–34 year olds on average saw the largest increases in DB wealth, although 55–64 year olds on average saw the largest falls in wealth, mostly because this age group draw on their pension wealth. Similarly to DC pension wealth, the highest wealth group saw significantly bigger falls in wealth than the lowest wealth group, even controlling for age group. Households without children also saw significantly smaller increases in pension wealth than households with children. These last two findings may be due to such households being more likely to start drawing down their pension wealth.

Changes in total pension wealth with and without 'valuation' changes to DB pension wealth

Given the large 'valuation' changes described above for current DB pension wealth, an important question is to what extent such valuation changes influence the picture for the evolution of total pension wealth, as shown in Figure 4.3. We investigate this here.

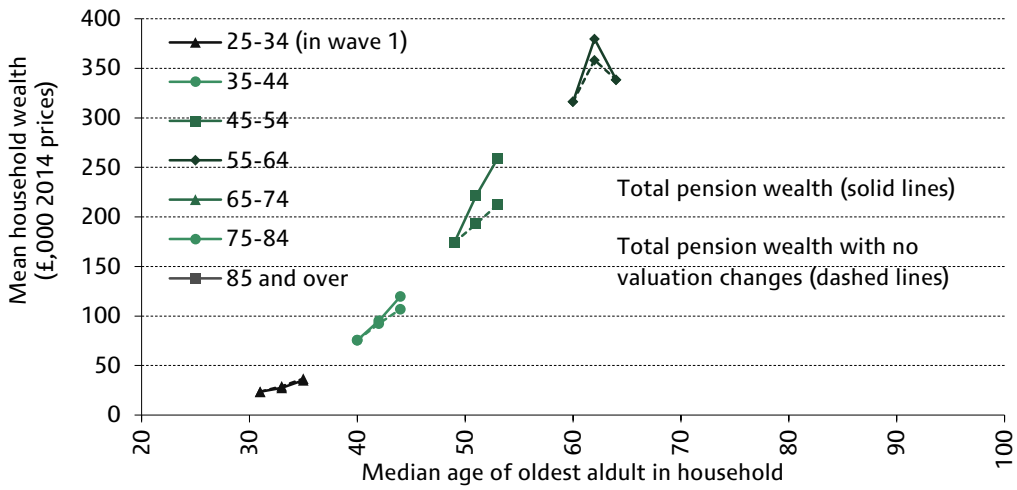
Valuation changes affect not just current DB pension wealth, but also retained DB pension wealth and pensions in receipt. Because, for these schemes, pension entitlements are not accrued between waves, we assume that virtually all changes in wealth in these schemes represent valuation changes. (The exception is where an individual moves from not having, to having, one of these types of pensions, as this implies a transfer of wealth from another type of pension.)

Table 5.6. Characteristics associated with changes in pension wealth

Wave 1 household characteristics	Mean change in current DC wealth	Mean non-valuation change in current DB wealth
Total wealth quintile		
1st (poorest)	(ref.)	(ref.)
2nd	–2,288	5,193
3rd	–12,233	–9,652
4th	–11,270	–18,809
5th (richest)	–45,390***	–103,858***
Income quintile (w3)		
1st (poorest)	(ref.)	(ref.)
2nd	–6,682	16,197
3rd	16,390	18,287
4th	22,092	32,686*
5th (richest)	44,247***	62,472***
Age group		
25 to 34	2,350	5,697
35 to 44	–1,159	5,529
45 to 54	(ref.)	(ref.)
55 to 64	–8,220	–118,846***
Household type		
Single household	–1,440	–36,336**
Couple without children	2,368	–18,370*
Single parent with children	2,787	–17,576
Couple with children	(ref.)	(ref.)
Employment status		
All adults employed	(ref.)	(ref.)
One adult employed, one adult not	7,198	–13,194
All adults not employed	–798	33,616
At least one adult self-employed	15,717*	19,798
At least one adult retired	–41,070**	–22,641
Education level		
No qualifications	(ref.)	(ref.)
Other level	–6,202	–43,834*
Degree or above	12,152	–51,812**
Constant	–5,052	71,455**
Observations	3,356	3,612
R^2	0.018	0.095

Note: Weighted sample of stable single benefit unit households (see Appendix A for details) aged less than 65. Column 1 includes only households with DC pension wealth in at least one wave of the WAS, and column 2 includes only households with current DB pension wealth in at least one wave. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively. Household characteristics are in 2006–08, with the exception of income, which was not collected comprehensively until 2010–12.

Figure 5.6. Actual mean inflation-adjusted total pension wealth and mean pension total wealth with no 'valuation changes'



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

The dashed line in Figure 5.6 illustrates what the real-terms change in mean pension wealth among different age groups looks like when we strip out the valuation changes in current DB pension wealth (described in the previous section), retained DB pension wealth, and wealth from pensions in payment.[12] (The solid line is identical to that shown for working age households in Figure 4.3.) Average total pension wealth would have grown more slowly for each age group if there were no valuation changes. Stripping out valuation changes makes only a relatively small difference for younger households, because DB pension wealth makes up a smaller proportion of total pension wealth for these age groups. For the 45–54 year old age group, the increase in mean pension wealth over the period was £99,000, but was only £54,000 excluding valuation changes.

5.4 Overall active and passive saving

Here, we bring the analysis conducted in this chapter together, and illustrate the contribution to the change in total wealth of active and passive saving in property and financial wealth, and the valuation and non-valuation components of the change in pension wealth. This is illustrated in Figure 5.7, which shows the decomposition of the mean change in total wealth for each age group (this is similar to Figure 4.5, but shows nominal rather than real changes in wealth).

Figure 5.7 underlines the importance of pension wealth valuation changes in explaining both changes in pension wealth and changes in total wealth. This is particularly the case for households aged 45–54, for whom pension wealth valuation changes made up more than half (56%) of the total increase in net wealth. (The average pension valuation change is large and negative for households aged 65–74 and 75–84, which is driven by a reduction in the value

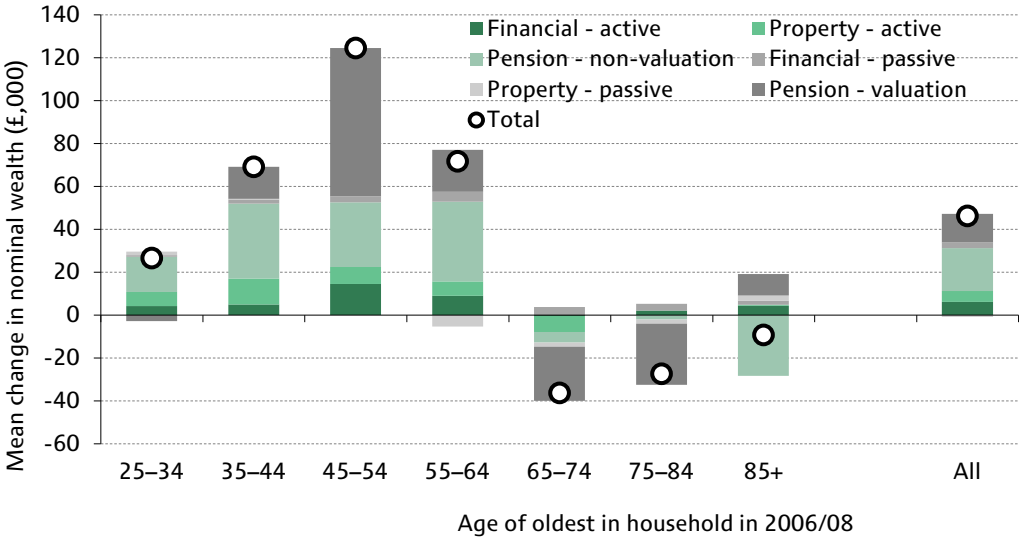
[12] For ease of comparison with Figure 4.3, in Figure 5.6 we show pension wealth adjusted for consumer price inflation, as opposed to nominal pension wealth, which has been considered so far in this chapter.

ascribed to pensions in receipt, as these will be expected to be received for four fewer years at the end of the period we consider).

Among households aged 25–34, mean active saving (the sum of active saving in property and financial wealth plus the non-valuation changes in pension wealth) was equal to the mean change in nominal wealth. In other words, total passive saving and pension valuation changes were, on average, approximately zero. However, as older households hold more wealth, the proportion of the change in wealth accounted for by passive saving on average increases: among 35–44 year old households, three-quarters of the mean change in wealth came through active saving, while this was only just over two-fifths (42%) among 45–54 year old households. Interestingly, the three cohorts aged between 35 and 64 all had roughly the same level of active saving, on average.

It is also striking that active saving in property and financial wealth were, on average, small relative to the changes in pension wealth (although as we have seen in previous sections, there was a lot of variation in these changes within age groups). On average, non-valuation changes in pension wealth accounted for 60% of the active saving among households aged 25–34, 67% among households aged 35–44, 57% among households aged 45–54 and 70% among households aged 55–64. Active saving in property wealth on average made up 24% of active saving for 25–34 year olds, and 23% for 35–44 year olds, but was less important for older cohorts. Active saving in financial wealth was the highest proportion of active saving (at 27%), and the highest in cash terms, for the 45–54 year old age group. It accounted for 15% of active saving on average among the 25–34 year old age group, 9% among the 35–44 year old group and 17% among the 55–64 year old group.

Figure 5.7. Contribution of active, passive, valuation and non-valuation changes to the mean change in nominal wealth



Note: Weighted sample of stable single benefit unit households (see Appendix A for details). The mean changes in total wealth in this figure (indicated by white dots) differ to those in Figure 4.5 because this figure shows the change in nominal wealth while Figure 4.5 showed the change in real wealth.

6. The Role of Inheritances

The WAS records whether individuals have received inheritances worth £1,000 or more, or gifts worth £500 or more, over the past two years, and some information on the value and source of any such gifts or inheritances. Because this information is elicited in each wave of the survey, the data attempt to capture all large transfers received over the period 2006–08 to 2010–12, and so we can consider the potential role of these transfers in the evolution of wealth.

11.2% of our panel of households (described in more detail in Appendix A) received one or more inheritances between 2006–08 and 2010–12, and a slightly higher proportion (11.8%) received at least one gift. Table 6.1 sets out the proportion of households of each age group who received inheritances or gifts over this period. The most common household ages to receive an inheritance were between 45 and 64, while gifts were much more likely to be received by younger households than older households. Overall, inheritances received over this period were most likely to come from parents (5.9% of households received an inheritance from their parents; this was 53% of households that received an inheritance), but younger households were more likely to receive an inheritance from grandparents than parents (among households aged 25–34 in 2006–08 7.3% received an inheritance from a grandparent between 2006–08 and 2010–12, compared to 3.3% who received an inheritance from a parent (59% and 27% of those receiving an inheritance, respectively)).

Table 6.2 describes the distribution of the value of inheritances and gifts received (adjusted for inflation using the Consumer Price Index). Inheritances tend to be much more valuable than gifts; the mean value of inheritances received was £57,700, compared to £8,800 for gifts. Inheritances received around ages 45–64

Table 6.1. Source of inheritances 2006–08 and 2010–12

Age in 2006–08	% received an inheritance	% receiving inheritance from					% received a gift
		Spouse	Parent	Grand parent	Other relative	Non-relative	
25–34	12.3	0.0	3.3	7.3	2.4	0.5	24.7
35–44	11.1	0.0	4.4	4.4	3.0	0.3	17.2
45–54	14.3	0.3	9.7	1.4	3.4	0.8	13.0
55–64	15.3	0.4	11.3	0.2	3.6	0.7	6.9
65–74	9.0	0.2	4.8	0.1	3.1	1.3	3.1
75–84	4.3	0.4	0.6	0.0	2.5	1.0	2.7
85 and over	1.5	0.0	0.0	0.0	0.0	1.5	0.0
All	11.2	0.2	5.9	2.4	2.9	0.7	11.8

Note: Weighted sample of stable single benefit unit households (see Appendix A for details). The WAS does not ask recipients of large gifts from whom they received these.

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Table 6.2. Real value of inheritances and gifts received between 2006–08 and 2010–12

	Value among those who received (£s, 2014 prices)			
	Mean	25th percentile	50th percentile	75th percentile
Inheritance				
25–34	34,164	2,314	8,306	28,822
35–44	38,828	2,186	6,974	27,688
45–54	66,739	5,785	25,131	82,474
55–64	83,135	7,863	26,821	95,537
65–74	58,387	4,775	15,980	69,652
75–84	80,368	3,308	11,169	39,175
85 and over	3,819	2,769	2,769	5,542
All	**57,667**	**4,144**	**13,290**	**57,391**
Gifts				
25–34	10,838	1,127	2,372	6,911
35–44	7,855	1,100	2,254	5,881
45–54	11,314	1,096	2,306	5,770
55–64	5,471	1,062	2,124	5,201
65–74	3,400	796	1,157	3,181
75–84	2,090	633	1,125	2,251
85 and over	–	–	–	–
All	**8,775**	**1,100**	**2,250**	**5,780**

Note: Weighted sample of stable single benefit unit households (see Appendix A for details) who had received an inheritance (top panel) or gift (bottom panel). Values of inheritance(s)/gift(s) received are converted into 2014 prices using the Consumer Price Index.

are typically worth more than inheritances received at younger or old ages. This is likely to reflect the source of inheritances; those received at ages 45–64 are more likely to be received from parents than those received at younger or older ages (as shown in Table 6.1). Table 6.3 shows that inheritances received from parents tend to be larger than those received from grandparents. The median inheritance received from parents was £31,400, whereas the median inheritance from grandparents was £5,600. In contrast, gifts received at younger ages are typically worth as much, if not more than, gifts received at older ages.

Table 6.4 shows the results of regression analysis exploring the association of a number of household characteristics with the likelihood of receiving inheritances and gifts, and the value of inheritances and gifts for those receiving them. The results in columns 1 and 3 are reported as *odds ratios*; a figure greater than one implies that odds of someone with that particular characteristic receiving either an inheritance or gift are greater than the odds of someone with the reference characteristic receiving one, while a figure of less than one indicates that the odds of someone with that particular characteristic receiving a gift or inheritance are

Table 6.3. Real value of inheritances received between 2006–08 and 2010–12, by who they are received from

	% who received inheritance from	Value among those who received (£s, 2014 prices)			
		Mean	25th percentile	50th percentile	75th percentile
Parent	5.9	79,719	7,856	31,387	95,685
Grandparent	2.4	21,590	2,093	5,611	18,238
Other relative	2.9	56,855	3,394	11,539	41,609
Non-relative	0.7	30,594	2,205	5,480	23,326

Note: Weighted sample of stable single benefit unit households (see Appendix A for details) who had received an inheritance. Values of inheritance(s) received are converted into 2014 prices using the Consumer Price Index. Distribution of inheritances from spouses are not shown as only 26 individuals in the WAS received an inheritance from their spouse between 2006–08 and 2010–12 (the mean value received was £151,811 in 2014 prices).

less than the odds of someone with the reference characteristic saving. For example, in the first column of Table 6.4, the figure 0.69 for 65–74 indicates that, all else equal, the odds of a 65–74 year old household receiving an inheritance are around 69% of the odds of a 45–54 year old household (the reference characteristic). (The 'odds' of someone receiving an inheritance is defined as the probability that they do so, divided by the probability that they do not do so.)

The results indicate that both inheritances and gifts are more likely to be received by wealthier households – households in the top wealth quintile in wave 1 had nearly three times the odds of receiving an inheritance between waves 1 and 3 as households in the bottom quintile. Inheritances and gifts are also more likely to be received by those with higher levels of education and households with at least one adult self-employed. As well as being most likely to receive inheritances, the wealthiest fifth of households also saw significantly larger inheritances than the poorest fifth of households. These results concord with those found by the existing literature using alternative data (see Karagiannaki and Hills, 2013; Crawford and Hood, 2015).

To get a sense of the potential role of inheritances in explaining the changes in household wealth described in Chapter 4, Figure 6.1 compares the mean change in non-pension wealth among households of different ages with the mean inheritance received. Among those who received an inheritance, the mean value of inheritances was actually greater than the mean increase in wealth – particularly among older age groups where the mean change in non-pension wealth was negative (driven by declines in housing wealth, as shown in Chapter 4). Among younger age groups, there is a striking difference between the mean

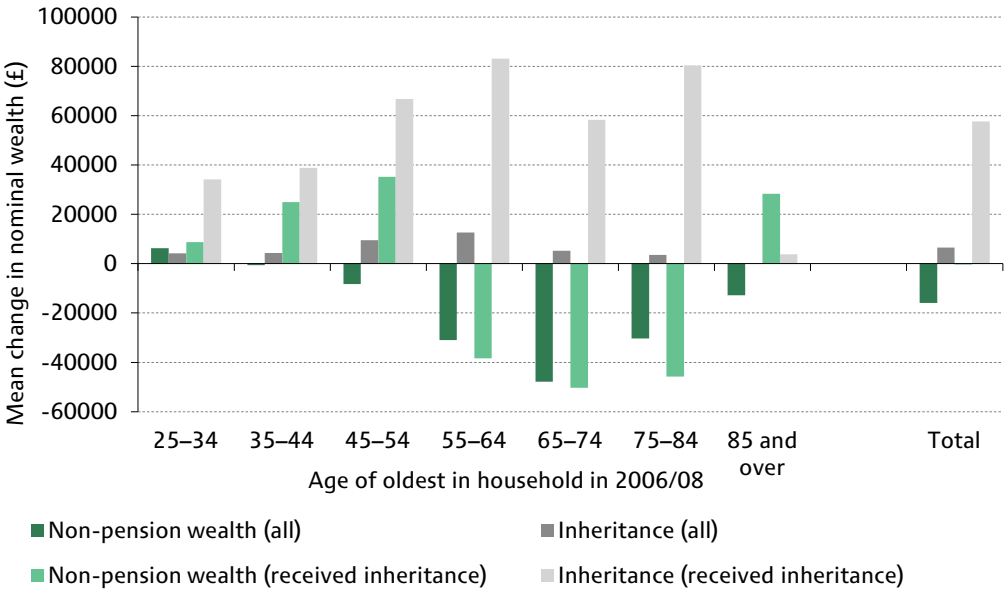
Table 6.4. Characteristics associated with the incidence and size of inheritances

Wave 1 household characteristics	Incidence of inheritances	Mean inheritance (conditional on receipt)	Incidence of gifts	Mean gift (conditional on receipt)
Wealth quintile				
1st (poorest)	(ref.)	(ref.)	(ref.)	(ref.)
2nd	1.77***	10,974	1.36**	5,180
3rd	2.16***	16,089	1.49***	3,259
4th	2.71***	22,534	1.41**	2,408
5th (richest)	2.78***	61,363**	1.57***	5,381
Income quintile				
1st (poorest)	(ref.)	(ref.)	(ref.)	(ref.)
2nd	0.89	19,201	0.84	2,349
3rd	0.99	13,725	0.94	–2,064
4th	1.02	4,514	0.94	–1,717
5th (richest)	1.00	32,575	1.03	929.8
Age group				
25–34	0.72***	–43,328*	2.10***	–1,366
35–44	0.70***	–32,171*	1.33***	–1,894
45–54	(ref.)	(ref.)	(ref.)	(ref.)
55–64	1.08	20,529	0.52***	–8,125**
65–74	0.69***	10,571	0.33***	–10,682*
75–84	0.39***	98,922***	0.27***	–13,042
85 and over	0.15***	–12,300	–	–
Household type				
Single household	0.84	13,217	0.87	1,625
Couple without children	1.16*	–7,198	1.02	5,938**
Single parent with children	0.90	41,357	0.90	–4,737
Couple with children	(ref.)	(ref.)	(ref.)	(ref.)
Employment status				
All adults employed	(ref.)	(ref.)	(ref.)	(ref.)
One adult employed one adult not	0.92	56,570***	0.86	–2,666
All adults not employed	0.76**	11,853	0.72**	–2,316
At least one adult self-employed	1.32***	15,043	1.19*	172.8
At least one adult retired	1.21	–25,884	0.85	4,883
Education level				
No qualifications	(ref.)	(ref.)	(ref.)	(ref.)
Other level	1.52***	37,928	1.82***	1,643
Degree or above	2.12***	52,865*	2.45***	203
Constant	0.05***	–31,073	0.065***	5,993
Observations	10,579	1,328	10,413	1,085
R^2		0.045		0.020

Note: Weighted sample of stable single benefit unit households (see Appendix A for details). ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

change in non-pension wealth among those who received an inheritance and those who did not, although it is likely that not all of this difference is due to the inheritance itself – as shown above, wealthier and more educated individuals are more likely to receive an inheritance, and these individuals may also be expected to accumulate more wealth (particularly in absolute terms) over time. Across the household population as a whole, the role of inheritances is relatively small, as the vast majority of individuals did not receive an inheritance over this period.

Figure 6.1. Comparison of the mean change in non-pension wealth with the mean inheritance for each age group



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

7. Attitudes Towards Saving

The WAS asks detailed questions not just about individuals and households' wealth holdings (from which we can attempt to calculate savings behaviour, as in the previous chapter), but also a number of questions about their *attitudes* towards savings. In this section, we explore individuals' self-reported savings behaviour, their stated reasons for saving or not saving, their expectations about retirement income sources, and who they trust for advice about retirement saving. The answers to these questions give some sense as to what might be motivating the changes in wealth discussed in detail in the previous chapters.

In this chapter, we focus on individuals, rather than households, as both members of couples are independently asked about their savings behaviour and their attitudes towards saving. For the most part, our results are drawn from the nationally representative cross-section sample interviewed in 2010–12; however, where pertinent, we also draw out how attitudes have changed over time. Only where we relate self-reported saving to an estimated measure of 'active saving' do we restrict the analysis to individuals observed in all three waves of the WAS.

7.1 Self-reported financial saving

We start by examining the self-reported prevalence of financial saving. Individuals in the WAS are asked the following question:

"Have you saved any of your income in the last two years, for example, by putting something away in a bank, building society, or Post Office account, other than to meet regular bills? (exclude pensions, include shares etc.)"

In 2010–12, 47% of individuals reported that they were saving in this way. There is relatively little variation across age groups: for example, 44% of those aged 25–34 reported saving, compared to 48% among those aged 55–64 and 49% among those aged 75–84. There is also relatively little change in the proportion of individuals saving over time.

Individuals are also asked to report their main reasons for saving or not saving (as applicable) from a range of options, with multiple responses being allowed. The most commonly reported reasons for saving in 2010–12 were "*For unexpected expenditures/rainy day*" (30% of all individuals), "*For holidays or other leisure/recreation*" (23% of individuals), "*To cover a planned expense in the future*" (15% of individuals) and "*For other family members (including for gifts or inheritance)*" (10% of individuals). Figure 7.1 illustrates how the proportion of individuals reporting saving for these reasons differs by age. A similar proportion of individuals save for unexpected expenses at all ages, but saving for leisure or

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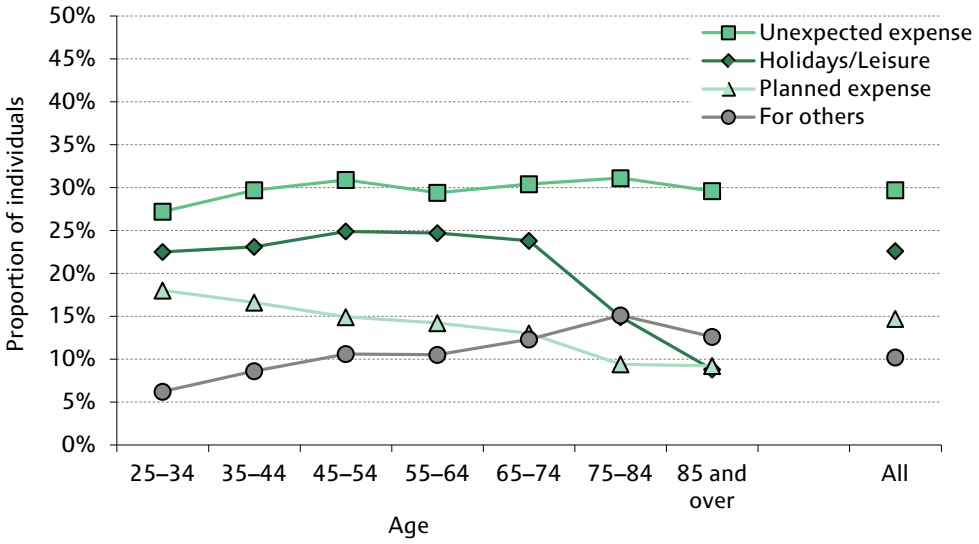
Figure 7.1. Reported main reasons for saving, 2010–12



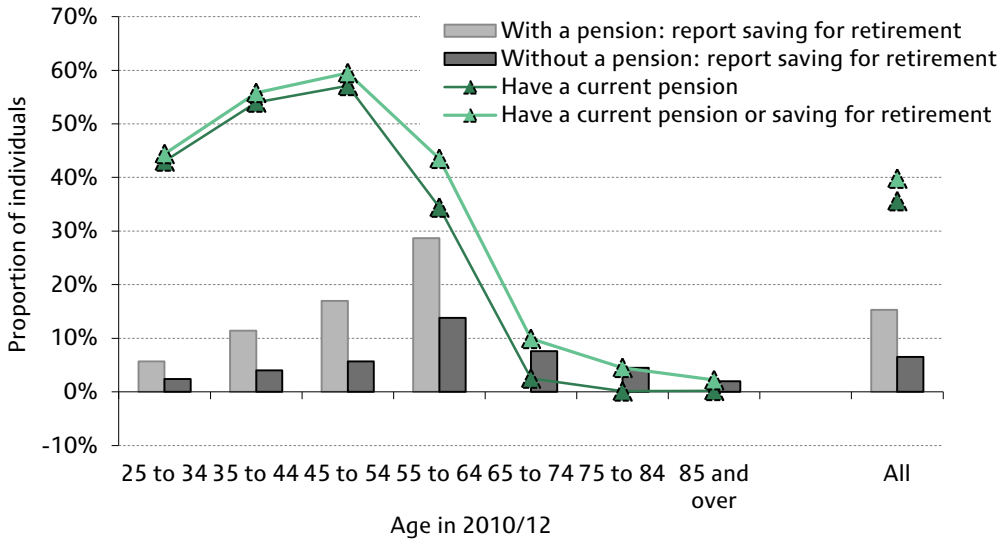
Note: Weighted cross-section of all individuals aged 25 and over, not just those who report saving.

other planned expenses is less prevalent at older ages, while saving for others is more prevalent.

The next most commonly reported main reason for saving was "*to provide income for retirement*". This was reported by 10% of all individuals (21% of savers) in 2010–12, but was concentrated among individuals of a particular age – 19% of all individuals aged 55–64 reported saving to provide a retirement income. Figure 7.2 describes how saving in financial assets (excluding pensions) for retirement overlaps with saving in pensions. Saving for a retirement income is more common among those who currently have a private pension to which they do or could contribute, than it is among those who do not. Among those aged 55–64 with a current pension, 29% also reported saving in non-pension financial assets for retirement, while among those aged 55–64 without a current pension, only 14% of individuals reported saving for retirement in non-pension financial assets. This suggests that financial assets are not a heavily used alternative for retirement saving among those who do not save in pensions, and a similar proportion of individuals would be deemed to be saving for retirement whether one looked just at the proportion of individuals saving in pensions, or the proportion of individuals saving in pensions or reporting saving for retirement in other non-pension assets.

The prevalence of the remaining reported main reasons for saving is described in Table 7.1. 6% of individuals at any age report saving "*To see my money grow/good interest rates*". Small numbers of individuals (3%) report a main reason for saving being that they "*Don't spend all of income*", and this reason is more likely among older individuals than younger individuals. Perhaps surprisingly, "*For a deposit to buy a property*" is not one of the most frequently reported main reasons for saving, even among younger households. This was reported by 11% of individuals aged 25–34 and 5% of individuals aged 35–44,

Figure 7.2. Overlap between reported saving in financial assets for retirement and current pension saving, 2010–12



Note: Sample is weighted cross-section of all individuals aged 25 and over in 2010–12, not just those who report saving. Proportions actively saving in a pension: 43% aged 25–34; 54% aged 35–44; 57% aged 45–54; 34% aged 55–64; 2% aged 65–74. Figure for proportion of individuals aged 65–74 with a pension who report saving for retirement is not illustrated due to small sample sizes.

Table 7.1. Prevalence of other reported main reasons for saving, 2010–12

Age	Proportion of individuals who reported as a main reason for saving in the last two years:				
	Investment	Deposit for property	Do not spend all income	Speculation/ recreation	Regular income for next year
25–34	5.4%	11.3%	2.6%	4.3%	2.7%
35–44	5.9%	5.0%	2.9%	3.5%	2.5%
45–54	6.2%	1.8%	2.5%	3.2%	2.5%
55–64	7.2%	0.7%	2.6%	2.7%	3.6%
65–74	6.3%	0.3%	3.2%	2.1%	3.3%
75–84	4.1%	0.1%	4.3%	0.9%	2.5%
85 and over	3.2%	0.0%	6.6%	0.2%	1.8%
All	5.9%	3.4%	3.0%	2.9%	2.8%

Note: Sample is weighted cross section of all individuals aged 25 and over in 2010–12 (not just those who report saving).

and by 12% and 6% respectively of individuals in those age groups who do not own their house (either outright or with a mortgage).

Table 7.2 sets out the proportion of individuals in each age band who reported not saving for various reasons. Over one-third of individuals (36%) reported not saving in the last two years because they could not afford to, and 11% reported not doing so because they wanted to pay off debts first (42% reported either or

Table 7.2. Prevalence of reporting not saving, by age and reason 2010–12

Age	Proportion of individuals who did not save in the last two years because they:				
	Cannot afford to/income too low	Want to pay off debts first	Did not need to	Did not want to/had not thought about it	(Any reason)
25–34	34.1%	16.8%	0.8%	3.6%	55.6%
35–44	38.5%	15.6%	0.7%	2.4%	54.3%
45–54	39.0%	13.1%	1.5%	2.7%	54.7%
55–64	37.1%	8.2%	3.5%	3.1%	52.1%
65–74	34.8%	4.1%	6.2%	3.0%	51.1%
75–84	31.1%	2.7%	8.0%	3.7%	51.2%
85 and over	28.1%	1.4%	10.1%	3.5%	51.4%
All	36.1%	10.8%	3.1%	3.0%	53.4%

Note: Sample is weighted cross-section of all individuals aged 25 and over in 2010–12 (not just those who report not saving). Individuals can report multiple reasons for not saving, so numbers do not sum. The proportion not saving (for any reason) is one minus the proportion of people who report saving (as shown in Figure 7.1).

both of these reasons). Only small numbers of individuals reported not saving for other reasons, such as not wanting to or not needing to, and these reasons were slightly more likely at older ages.

Who saves (or not) for different reasons

The previous analysis suggested that while there is relatively little difference in the proportion of individuals at different ages who save, there is more variation by age in the reasons reported for why individuals save or do not save. Here we explore in more detail the individual characteristics associated with different reasons for saving or not saving.

Tables 7.3a and 7.3b set out the results of regression analysis exploring the association between a number of individual characteristics and the odds of reporting saving. The results are again reported as *odds ratios*; a figure greater than 1 implies that odds of someone with that particular characteristic saving are greater than the odds of someone with the reference characteristic saving, while a figure of less than one indicates that the odds of someone with that particular characteristic saving are less than the odds of someone with the reference characteristic saving. For example, in the first column of Table 7.3a the figure – 0.797 for "Male" indicates that all else equal the odds of a man saving are around 80% of the odds of a woman (the reference characteristic) saving. (The 'odds' of someone saving is defined as the probability that they save divided by the probability that they do not save.)

Table 7.3a. Association between individual characteristics and odds of reporting saving for various reasons

	Relative odds of reporting saving for:					
	Any reason	Unexpected expense	Holiday	Planned expense	Others	Retirement
Female	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Male	0.80***	0.84***	0.78***	0.86***	0.73***	0.98
Aged 25–34	1.05	0.91***	0.93**	1.27***	0.61***	0.33***
Aged 35–44	1.08***	1.05*	1.01	1.11***	0.74***	0.65***
Aged 45–54	1.19***	1.05*	1.04	0.93**	1.29***	1.72***
Aged 55–64	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Aged 65–74	1.31***	1.20***	1.12***	0.91*	1.72***	0.89**
Aged 75–84	1.56***	1.38***	0.82***	0.83***	2.41***	0.59***
Aged 85 and over	1.81***	1.41***	0.43***	0.82**	2.71***	0.52***
High education	1.59***	1.40***	1.15***	1.54***	1.64***	1.72***
Mid education	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Low education	0.59***	0.67***	0.53***	0.57***	0.61***	0.57***
Couple, no dep. children	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Couple, dep. children	0.76***	0.87***	0.75***	0.87***	1.72***	0.70***
Single, no dep. children	0.85***	0.93***	0.69***	0.78***	0.87***	0.82***
Single, dep. children	0.52***	0.63***	0.54***	0.55***	1.28***	0.31***
Employee, lowest earn	0.71***	0.75***	0.78***	0.74***	1.01	0.86**
Employee, earn quintile2	0.81***	0.83***	0.82***	0.82***	1.00	0.88**
Employee, earn quintile3	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Employee, earn quintile4	1.32***	1.17***	1.24***	1.25***	1.19***	1.32***
Employee, highest earn	1.77***	1.39***	1.37***	1.56***	1.37***	1.87***
Self-employed	0.82***	0.84***	0.68***	0.77***	0.91	1.38***
Retired	0.80***	0.92**	0.85***	1.03	0.96	0.57***
Other inactive	0.40***	0.51***	0.39***	0.51***	0.63***	0.56***
Has current pension	1.56***	1.46***	1.47***	1.46***	1.27***	1.54***
Own outright	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Own with mortgage	0.67***	0.82***	0.81***	0.75***	0.61***	0.41***
Rent or rent free	0.48***	0.54***	0.53***	0.53***	0.52***	0.31***

Note: Sample is weighted pooled cross section of all individuals aged 25 and over in 2006–08, 2008–10 and 2010–12 (not just those who report saving or not saving). Regressions also include time dummies; changes over time are discussed in the following subsection. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Table 7.3b. Association between individual characteristics and odds of reporting saving for various reasons

	Relative odds of reporting saving for:		**Relative odds of reporting not saving because:**		
	Investment	Deposit	Can't afford to or first paying down debts	Didn't want to/ hadn't thought about it	Didn't need to
Female	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Male	1.08***	1.01	1.09***	1.14***	1.07
Aged 25–34	1.13**	5.10***	0.72***	1.18**	0.64***
Aged 35–44	1.07	2.61***	0.87***	0.93	0.67***
Aged 45–54	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Aged 55–64	0.97	0.42***	0.93**	0.98	1.39***
Aged 65–74	0.82***	0.23***	0.76***	1.140	1.70***
Aged 75–84	0.66***	0.15***	0.59***	1.15	1.98***
Aged 85 and over	0.57***	0.17***	0.40***	1.265*	2.79***
High education	1.85***	2.20***	0.62***	0.78***	1.15**
Mid education	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Low education	0.39***	0.37***	1.14***	1.07	1.00
Couple, no dep. children	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Couple, dep. children	0.79***	0.67***	1.52***	0.89*	0.83*
Single, no dep. children	0.93**	0.76***	1.14***	1.19***	1.06
Single, dep. children	0.47***	0.28***	2.78***	0.93	0.60**
Employee, lowest earn	1.12	0.51***	1.41***	0.90	1.44**
Employee, earn quintile2	1.00	0.70***	1.23***	0.99	0.81
Employee, earn quintile3	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Employee, earn quintile4	1.36***	1.43***	0.72***	1.08	0.74*
Employee, highest earn	1.98***	1.71***	0.43***	1.00	0.98
Self-employed	1.23***	1.24**	1.10**	0.98	1.65***
Retired	1.33***	0.63**	1.36***	0.92	2.14***
Other inactive	0.78***	0.42***	1.70***	0.68***	1.06
Has current pension	1.45***	1.39***	0.65***	0.77***	0.87*
Own outright	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Own with mortgage	0.48***	0.40***	1.78***	1.18***	0.70***
Rent or rent free	0.30***	1.32***	2.93***	1.04	0.57***

Note: The reasons for not saving, 'Cannot afford to' and 'Paying down debts first', are pooled because these are not separately distinguished in 2006–08. Sample is weighted pooled cross-section of all individuals aged 25 and over in 2006–08, 2008–10 and 2010–12 (not just those who report saving or not saving). Regressions also include time dummies; changes over time are discussed in the following subsection. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

The results presented in the first column of Table 7.3a suggest that the odds of someone saving are greater if they are female than male, if they have higher levels of education than if they have lower levels of education, if they do not have dependent children than if they do, and if they are in a couple rather than if they are single. The odds of saving are increasing with earnings among employed individuals (e.g. the odds of saving are 80% higher among the highest-earning fifth of employees as the middle-earning fifth), while those who are self-employed, those who are retired, and those who are not working and are not retired have lower odds of reporting saving than middle-earning employees. Individuals who own their home with a mortgage have only 67% of the odds of saving as someone who owns their home outright, while someone who rents their accommodation has around half the odds of saving as someone who owns outright.

The subsequent columns of Tables 7.3a and 7.3b report the association between individual characteristics and the odds of saving or not saving for particular reasons. Men have lower odds than women of saving for unexpected expenses, holidays, planned expenses and (particularly) for others, but higher odds than women of saving for investment. Those with lower levels of education have lower odds of saving for all reasons than those with higher levels of education, but the extent of the difference does vary by reason for saving. For example, low-educated individuals have 67% of the odds of mid-educated individuals of saving for an unexpected expense, but only around 53% of the odds of saving for a holiday and only 37% of the odds of saving for a property deposit. Those who live in rented accommodation are much less likely to report saving for almost all reasons than those who either own outright or have a mortgage – the exception is saving for a deposit, for which the odds are 32% greater among those in rented accommodation than for those who own their home outright, and over three times as great as among those who own their home with a mortgage.

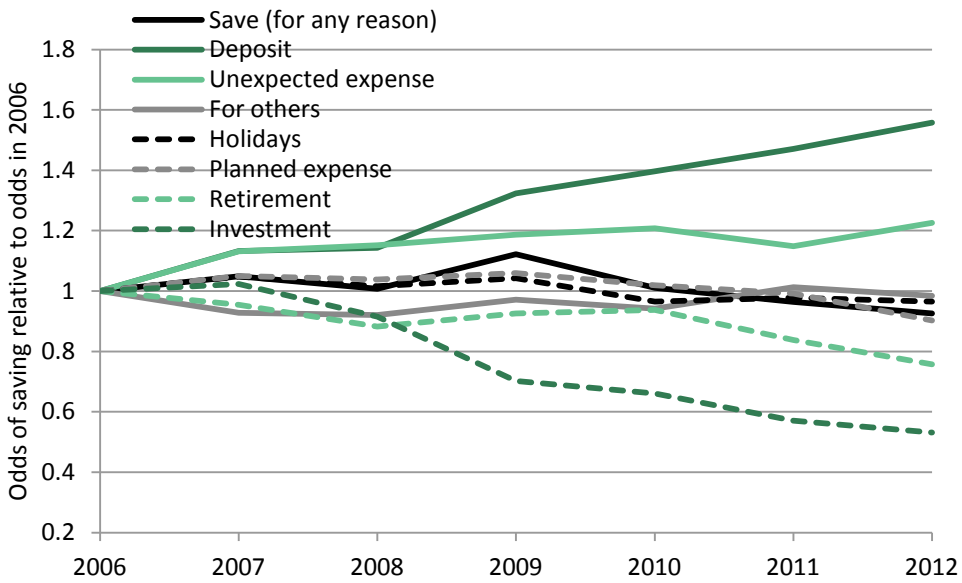
In terms of reporting not saving, older households are less likely to report that they could not afford to save than younger households, but are more likely to report not needing to. Unsurprisingly, it is more likely that those with lower levels of education will report not being able to afford to save than those with higher levels of education, and those who do not own their house outright than those who do (and particularly so among those who rent their accommodation), and the odds of not being able to afford to save are decreasing in earnings. Being self-employed or being retired is associated with twice the odds of reporting not needing to save as an employee with middle earnings.

Changes in saving over time

The proportion of individuals reporting saving in the two years preceding 2010–12 (47%) was little different from the proportion reporting saving in the two years prior to 2008–10 (48%) or 2006–08 (46%). However, there are significant changes in the proportion of individuals reporting saving for different reasons over time. Figure 7.3 reports the relative odds of reporting saving for different reasons by year. These are calculated from the year dummies in the regression

analysis presented in Tables 7.3a and 7.3b, and therefore control for changes in individual characteristics over time. The results suggest that over time the odds of individuals reporting saving for a deposit and saving for an unexpected expense increased (by nearly 60% and by over 20%, respectively, by 2012 compared to 2006). The dramatic increase in the odds of saving for a deposit could be driven by the fall in the availability of mortgages to those with small deposits. (For example, Chandler and Disney (2014) report that the median first-time buyer loan to value ratio was around 90% for most of the 2000s, but fell to 75% in 2009, and since then has risen to around 80%.) The increase in saving for an unexpected expense may be due to the heightened employment and earnings uncertainty associated with the recession. In contrast, the odds of reporting saving for retirement fell by over 20%, while the odds of saving for an investment fell to nearly half their 2006 level by 2012. The declining prevalence of saving for investment has likely driven the equity price volatility associated with the financial crisis and the sharp decline in interest rates over this period. (The Bank of England base rate was reduced from 5.75% in July 2007 to 5% by April 2008, and to 0.5% by March 2009.)

Figure 7.3. Odds of reporting saving for different reasons over time



Note: Odds ratios are estimated from logistic regressions that also control for sex, age, education, household composition, employment status and earnings, private pension provision and housing tenure. The association of saving with these characteristics is reported in Tables 7.3a and 7.3b.

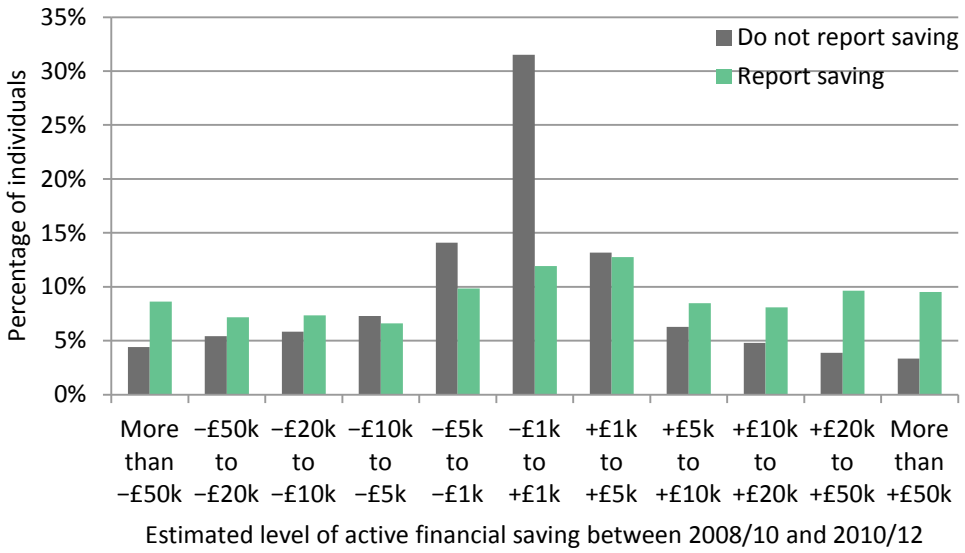
Active financial saving among those reporting saving (or not)

We can compare how our estimates for the change in individuals' financial wealth as a result of active saving (using the methodology described in Chapter 5 and Appendix B, but conducted at the individual level) differ between individuals who reported saving and individuals who did not. This is shown in Figure 7.4 for individuals interviewed in 2010–12 who were also interviewed in the previous waves of the WAS. Nearly a third (32%) of those who reported in 2010–12 not

saving over the previous two years are estimated to have increased or decreased their financial wealth as a result of active saving by less than £1,000 (compared to just 12% of those who reported not saving).[13] Only 31% are estimated to see an increase in financial wealth as a result of active saving of £1,000 or more, compared to 48% among those who reported that they had saved over the previous two years.

Table 7.4 describes the distribution of estimated active saving among individuals who report saving or not saving for various reasons. This again indicates that many individuals who reported not saving over the previous two years are estimated to have relatively little active saving over this period, particularly among those who reported as main reasons that they could not afford to or did not want to. Among those who reported saving, median estimated active saving is greater among individuals who reported saving for retirement or for investment reasons than among those who reported saving for unexpected or planned expenses or for holidays.

Figure 7.4. Estimated active financial saving 2008–10 to 2010–12, by whether report saving over the last two years in 2010–12



Note: Sample is individuals aged 25 and over in 2010/11 who were also observed in both previous waves of the WAS.

[13] One would not expect all individuals who reported not saving to have no estimated active saving, or all individuals who reported saving to have positive estimated saving, because the self-reported savings question and the estimated active saving are measuring slightly different things. For example, individuals could save and spend those savings *within* the two years (e.g. saving for and then going on a holiday) – they would then report saving but see no change in their financial wealth over the two years as a whole. Conversely, someone may have greater financial wealth in one wave than the previous wave as a result of active saving, but if that is for meeting regular bills then they would not class that as saving.

Table 7.4. Estimated active financial saving 2008–10 to 2010–12, by reported reason for saving or not saving in 2010–12

	% of individ.	Estimated active saving					
		Mean	P10	P25	Median	P75	P90
Saving for:							
Any reason	48.7%	2,831	–40,344	–8,144	750	12,173	47,513
Unexpected expense	30.6%	6,947	–34,465	–7,298	793	11,104	44,163
Holiday or leisure	23.7%	9,538	–34,487	–7,281	983	13,116	47,956
Planned expense	14.8%	11,691	–40,362	–8,092	1,225	15,194	50,286
For others	11.8%	8,663	–55,759	–10,459	1,506	20,464	68,351
For retirement	11.3%	11,340	–59,199	–10,748	5,336	30,870	97,313
Investment	6.8%	15,418	–64,451	–10,546	5,421	32,676	109,002
Not saving because:							
Any reason	51.3%	–1,716	–19,516	–4,025	–15	2,240	13,033
Could not afford to	35.3%	–2,472	–16,820	–4,096	–99	2,100	10,792
Did not want to	2.8%	8,589	–16,042	–3,862	30	4,100	23,209
Did not need to	4.2%	–10,461	–69,635	–16,227	–550	6,776	44,329

Note: Sample is individuals in 2010–11 who were also observed in both previous waves of the WAS. Values for the proportion of individuals reporting saving or not saving for various reasons therefore differ to those described in Figures 7.1–7.3 and Tables 7.1 and 7.2.

7.2 Attitudes towards retirement saving

In 2010–12, just over half (51%) of individuals aged 25–64 either had an active pension or reported that they were saving for retirement (shown by age in Figure 7.2). Given that this means nearly half of individuals were not saving for retirement at that time, it is worth exploring individuals' reported attitudes towards saving for retirement in order to better understand why that might be the case.

Expected sources of retirement income

The WAS asks individuals who have not yet retired: '*Which [of a list of options] do you expect to use to provide money for your retirement?*' and '*Which do you think will make up the largest part of your income during your retirement?*'. Individuals' answers to these questions are described in Table 7.5. The majority of individuals of all ages expect to receive income from a state pension. However, it is interesting to note that at younger ages a rising proportion of individuals expect

no income from this source, a pattern that would not actually arise under the rules of the state pension system as things stand. Whether this reflects a lack of understanding among those further from retirement, or whether younger individuals understand the current pension system but no not expect such provision to persist by the time they reach retirement, is an open question. Younger individuals are also less likely to report expecting income from private pensions than older individuals, though the difference is smaller than for state pensions. Over 60% of individuals who have not yet retired expected some income from a private pension. However, 8% do not expect any retirement income from either a state pension or a private pension. The next most commonly cited source of income was savings or investments, followed by primary housing (through downsizing, borrowing against the home or renting out rooms). The fact that over a quarter of individuals expect their home to provide them with some income in retirement stands in some contrast with the existing evidence that relatively little wealth is drawn from primary housing during retirement (see Blundell et al., forthcoming). Other property wealth is also expected to provide some retirement income for nearly 10% of individuals. Finally, inheritances are expected to provide some retirement income by 11.7% of those aged 55–64 but 28.0% of those aged 25–34. This accords with the findings of Hood and Joyce (2013) that later cohorts have higher expectations of receiving an inheritance in future. However, it also suggests that at least some of those expecting to receive an inheritance are planning to use it to provide income in retirement.

The bottom panel of Table 7.5 illustrates what source individuals expect to provide the largest proportion of retirement income. Among most age groups, private pensions are the most commonly sorted main source, being reported by around 35% of individuals, closely followed by the state pension (reported by 33% of individuals). However, important proportions of people expect their main source of retirement income to be savings or investments (8%), primary housing (6%), other property (4%) or inheritance(s) (5%).

The individual characteristics associated with the expected main source of retirement income are explored using multivariate regression analysis, and the results – again reported as odds ratios – are shown in Table 7.6. Men have higher odds than women of expecting their main income source to be a private pension (around 30% higher), but lower odds of expecting it to be primary housing or from an inheritance. This latter fact is consistent with existing research that has found that, in the past, women have been more likely to receive an inheritance than men (Crawford and Hood, 2015). The age patterns identified in Table 7.5 remain, even after controlling for other individual characteristics. In particular, younger individuals have higher odds than older individuals of savings/investments or other property being the main source of retirement income (and to a lesser extent private pensions), but lower odds of primary housing or (particularly) state pensions being the main source. Those with lower levels of education have higher odds, than those with higher levels of education, of state pensions being the most important, and lower odds of private pensions

Table 7.5. Individuals expected sources of retirement income, 2010–12

	Proportion of (not yet retired) individuals aged:					
	25–34	35–44	45–54	55–64	65–74	All
Expect to provide any money in retirement:						
State pension	76.3	83.2	89.9	93.6	93.0	85.7
Private pension	55.8	60.8	63.3	65.7	63.8	61.4
Savings/investments	49.9	40.3	35.3	39.1	50.5	41.1
Primary housing	23.9	29.7	30.8	25.2	17.6	27.5
Other property	13.7	9.8	7.1	6.6	6.8	9.2
Inheritance	28.0	26.9	18.6	11.7	3.2	21.3
Other	34.4	33.5	28.9	28.1	36.7	31.5
Expect to make up largest part of retirement income:						
State pension	23.3	27.8	34.8	46.1	41.6	32.6
Private pension	36.3	35.2	35.2	31.6	28.2	34.6
Savings/investments	13.3	7.6	5.1	5.1	10.0	7.8
Primary housing	4.2	7.1	7.6	5.3	5.9	6.2
Other property	5.4	4.2	2.7	2.5	2.3	3.7
Inheritance	5.3	6.5	4.4	2.1	0.6	4.6
Other	12.3	11.6	10.2	7.4	11.4	10.6

Note: Weighted sample of all individuals in 2010–12 who were not yet retired.

and other property wealth being the most important. Among employees, the level of earnings is only significantly associated with the odds of state pension income or private pension income being most important.

There is a high degree of association between individuals' current asset holdings and their expected retirement income sources (which would be particularly expected to be the case at older ages, once individuals' retirement saving is well underway). For example, the odds of someone with a current private pension expecting their main income source to be a private pension are six times those of someone without a current private pension, and they have only around half the odds of expecting other sources to be the main provider of retirement income. Those who rent their own home have less than a fifth of the odds of someone who owns their house outright of reporting that their main retirement income source will be primary housing.

This overlap between individuals' current wealth holdings and their retirement income expectations is described in more detail in Table 7.7, albeit in a univariate context. Most (90%) individuals who expect a private pension to be the main source of their retirement income do have a private pension, compared with 47% of those who expect the state pension to be their largest income source. The overlap is less strong with those who report that savings or investments will be their largest source of income, among whom only 73% currently have savings or investments (outside current accounts). However, it is noticeable that the mean value of these assets is significantly greater among those who expect them

Table 7.6. Association between individual characteristics and expected main source of retirement income

	Relative odds of expecting main source of retirement income to be:					
	State pension	Private pension	Savings/ investment	Primary housing	Other property	Inheritance
Female	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Male	1.00	1.30***	0.99	0.73***	1.26**	0.72***
Aged 25–34	0.41***	1.36***	2.75***	0.60***	2.15***	1.26*
Aged 35–44	0.66***	1.03	1.66***	0.78	1.57***	1.43***
Aged 45–54	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Aged 55–64	1.48***	1.11	0.75**	0.78**	0.86	0.50***
Aged 65–74	0.937	2.22***	0.98	0.71	0.57**	0.12***
High education	0.43***	1.72***	1.48***	0.74***	1.14	0.81**
Mid education	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Low education	1.75***	0.45***	0.62	0.95	0.54***	0.45***
Couple, no dep. children	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Couple, dep. children	0.98	0.96	0.88	1.13	0.96	1.25*
Single, no dep. children	1.11*	0.95	0.90	1.03	0.60***	1.20
Single, dep. children	1.11	1.07	0.56**	1.44*	0.60**	1.59***
Employee, lowest earn	1.50***	0.54***	0.83	0.94	1.01	1.11
Employee, earn quintile2	1.49***	0.64***	1.03	0.79	1.06	1.14
Employee, earn quintile3	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Employee, earn quintile4	0.58***	1.27***	1.24	1.07	1.23	0.90
Employee, highest earn	0.32***	1.58***	1.28*	0.80	1.27	0.83
Self-employed	0.71***	0.44***	1.52***	1.26*	2.35***	1.60***
Retired	0.89	1.05	1.41	0.26**	1.24	3.26**
Other inactive	1.58***	0.58***	0.80	0.70**	0.80	0.97
Has current pension	0.38***	6.21***	0.45***	0.58***	0.61***	0.84*
Own outright	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Own with mortgage	0.97	0.92	0.48***	1.76***	1.14	1.13
Rent or rent free	2.16***	0.66***	0.54***	0.18***	0.62**	0.66***

Note: Weighted sample of all individuals aged 25–74 who had not yet retired in 2010–12. Sample size = 14,717. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Table 7.7. Individuals' wealth holdings, by expected main source of retirement income

Expected main source of retirement income	**Proportion who have:**				**Mean value of:**		
	Private pension	Savings /invest.	Primary housing	Other prop.	Savings / invest.	Primary housing (equiv.)	Other prop. (equiv.)
State pension	41.6%	46.9%	50.5%	5.0%	6,231	43,043	3,190
Private pension	89.8%	80.5%	82.0%	12.5%	25,106	96,059	12,916
Savings/ investments	49.8%	72.7%	66.6%	20.8%	63,174	91,852	29,554
Primary housing	65.3%	72.4%	92.9%	12.7%	12,328	127,524	13,494
Other property	59.6%	76.9%	78.6%	55.7%	25,428	103,829	99,680
Inheritance	64.8%	69.6%	75.1%	12.9%	11,803	77,234	8,039
All	61.9%	64.9%	68.2%	12.7%	19,950	77,021	15,066

Note: Weighted sample of all individuals aged 25–74 who had not yet retired in 2010–12. The value of primary housing and other property wealth is equivalised by dividing household wealth by the number of adults in the household. Savings/investments are measured at the individual level.

to provide the largest fraction of their retirement income (at £63,174) than the mean across all (unretired) individuals (£19,950). Interestingly, nearly half of those who say that property other than their main home will be their main source of retirement income do not actually have any such property wealth at the moment. Many of these individuals are relatively young (48% are aged 25–34), and so they might have time to acquire such wealth before retirement. However, it is also possible that their expectations are too optimistic, and that the greater odds of younger individuals expecting other property to be their main source of retirement income (shown in Table 7.6) is due to older individuals having realised the feasibility of such expectations over time.

Sources that individuals trust for advice on retirement saving

The results set out above suggest that individuals approach saving for retirement in different ways, with differences in preferences and circumstances leading to different portfolios for wealth and future retirement income. To understand how households arrive at their saving decisions, we now consider where households go for advice about saving for retirement, which would also be important for those seeking to influence household savings behaviour.

The WAS asks individuals who (from a list of options) they would trust for advice about saving for retirement, with multiple responses allowed. The percentage of individuals in each age group who reported various bodies/institutions/individuals is set out in Table 7.8. Note that this is not necessarily the same as who individuals *use* for financial advice – for example, individuals may report that they would trust an accountant but not employ the

Table 7.8. Trust in various institutions for advice about retirement saving

Who trust	Proportion of individuals aged:							
	25–34	35–44	45–54	55–64	65–74	75–84	85+	Total
Independent Financial Adviser	51%	49%	43%	40%	31%	21%	14%	40%
Bank/Building Society	31%	27%	27%	25%	28%	29%	27%	28%
Insurer	4%	4%	4%	3%	3%	3%	2%	4%
Accountant	20%	19%	18%	17%	13%	10%	9%	17%
Employer	15%	12%	10%	6%	3%	1%	1%	9%
Trade Union	8%	8%	9%	7%	4%	2%	2%	7%
The Pension Service	21%	18%	18%	16%	9%	7%	5%	15%
Financial Services Authority	23%	23%	18%	14%	7%	4%	3%	16%
Consumer Bodies	28%	24%	20%	17%	13%	11%	8%	19%
Internet	13%	11%	7%	5%	3%	1%	1%	7%
Newspapers	4%	5%	5%	6%	5%	3%	2%	5%
Partner	26%	23%	19%	19%	18%	14%	8%	20%
Other relative/friend	39%	28%	17%	14%	15%	23%	37%	23%
Work colleagues	11%	8%	5%	3%	1%	1%	1%	1%

Note: Weighted sample of all individuals in 2010–12.

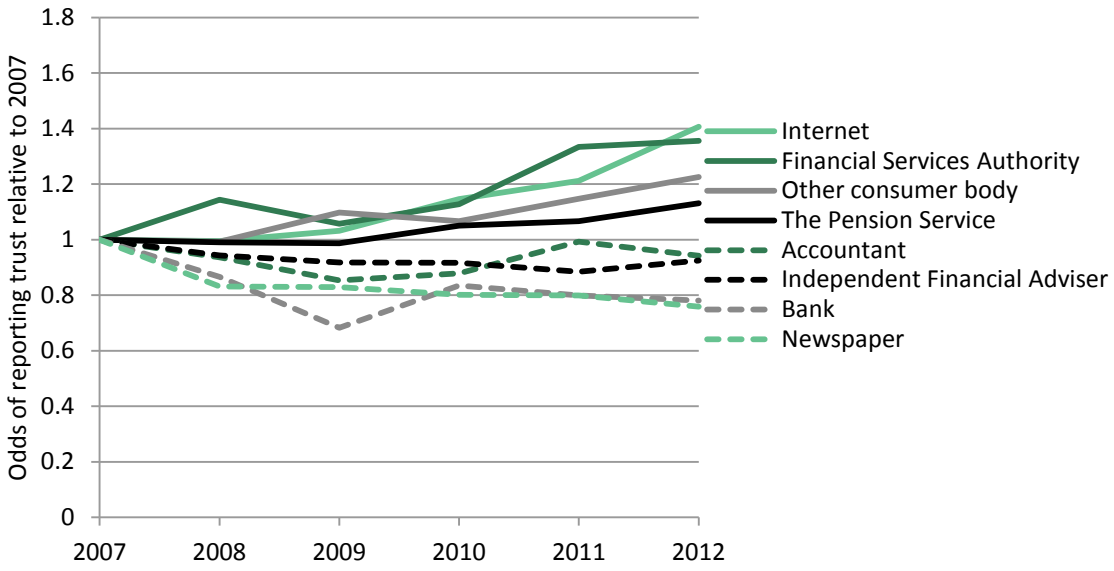
services of one. However, it is likely that there is some overlap. Independent Financial Advisers are the most commonly reported as being trusted, by 40% of all individuals and by around half of individuals aged 25–44. Bank or building societies were the next most commonly cited, followed by partners, family and friends, and consumer bodies such as Citizens Advice Bureau (20%, 23% and 19%, respectively).

Multivariate regression analysis is again used to test the characteristics associated with trusting different institutions/individuals. This indicates that men are more likely than women to trust insurers, accountants, trade unions, the Financial Services Authority (FSA), colleagues, the Internet and newspapers, but less likely to trust their partner. Those with higher levels of education have higher odds than those with lower levels of education of trusting all of the bodies set out in Table 7.8 with the exception of banks. The odds of trusting employers, the FSA and colleagues is increasing in earnings among employees, while the self-employed are over three times more likely than an employee on average earnings to report that they would trust an accountant.

The change over time in the odds that a given institution would be trusted for retirement savings advice is illustrated in Figure 7.5 for some of the institutions that were most commonly reported as being trusted. The odds that some institutions would be trusted declined between 2007 and 2012 (e.g. banks and

newspapers). However, the odds of other institutions such as the Internet, the FSA, other consumer bodies, and the Pensions Service, increased over this period. It will be interesting to follow how trust in these various institutions evolves in the future, particularly in light of the reforms to the state pension system and the introduction of auto-enrolment into workplace pensions.

Figure 7.5. Changes over time in who individuals' trust for advice on retirement saving



Note: Odds ratios are estimated from logistic regressions that also control for sex, age, education, household composition, employment status and earnings, private pension provision and housing tenure.

8. Conclusions

This report has aimed to improve the evidence base on the level and composition of household wealth in Great Britain, and particularly to increase understanding of how wealth holdings have evolved over recent years. Our approach has been to use micro-data from the WAS – a nationally representative household survey that collects detailed data on households' assets and liabilities, as well as their attitudes towards saving. Being a panel survey, the WAS interviews the same households every two years, and so it is possible to explore the actual evolution of wealth for particular group of households.

The results indicate that, on average, total wealth holdings have followed the expected 'lifecycle' pattern over the period 2006–08 to 2010–12, with wealth increasing in real terms throughout working life but then declining throughout retirement. To a large extent, this picture is driven by changes in pension wealth. Property wealth, on average, has declined over the four-year period, largely driven by the declines in house prices associated with the financial crisis that occurred in this period. Financial wealth has been relatively flat in real terms at the median – because few households hold risky financial assets that saw volatile returns over this period – while at the mean financial assets also display a lifecycle profile.

However, another clear fact that emerges is that different households (even conditional on age) have very disparate experiences; focusing only on changes in average wealth hides this substantial heterogeneity in household wealth changes. Some household characteristics are commonly associated with changes in wealth – for example, as would be expected, those with higher levels of income see greater active saving in financial and housing wealth and greater increases in pension wealth (all measured in absolute terms) – but, in general, these broad household characteristics explain little of the variation across households. Inheritances are important in understanding the change in household wealth among those who receive them, and over the four-year period we consider this is around 11% of our sample of stable and consistently observed households.

Some of the differences in households' wealth changes over this period will reflect differing attitudes towards, and motivations for, saving. In 2010–12, 30% of individuals aged 25 or over reported saving for an unexpected expense, 23% for holidays/leisure, 15% for a planned expense, 10% for others and 10% to provide an income for retirement (note that individuals can report multiple reasons for saving). Active saving in financial assets is found to be greater among those reporting saving for retirement or for an investment, than among those reporting saving for an unexpected expense or for holiday/leisure purposes.

While this report has provided some important new evidence on the size, composition and potential drivers of changes in wealth over time, there remains much need for further research in this area. As the WAS matures, and more years

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of data become available, it will be possible to dig more deeply into some important questions, such as the following. What are the roles of income, capital gains and inheritances in determining wealth accumulation? Are working age households 'on track' to be financially prepared for retirement? What is the impact of the introduction of (and increase in) student loans on the evolution of household wealth across the lifecycle? Answers to such questions are not only of academic interest, but potentially also have important implications for policy makers involved with public policy pertaining to pensions, higher education, and taxation more generally.

A. The Wealth and Assets Survey

In this appendix, we introduce in slightly more detail the data source used for the analysis in this report: the Wealth and Assets Survey (WAS). We also describe the selection of the sample of 'stable' households for whom we analyse changes in wealth over the period 2006–08 to 2010–12.

A.1 The Wealth and Assets Survey

The WAS is a panel survey of the private household population of Great Britain (in other words, people in communal establishments, such as retirement homes, prisons, barracks, halls of residence and hotels, as well as homeless people were not surveyed). It was started in 2006-08, and over a two-year field work period interviewed 71,268 individuals in 30,595 households. Interviews have been attempted with the same individuals every two years since. Data from interviews in 2006–08, 2008–10 and 2010–12 are available at the time of writing.

The main purpose of the WAS is to obtain detailed information on the assets and liabilities of British households. Because a large proportion of wealth is held by a relatively small number of very wealthy individuals, the WAS purposefully oversamples wealthy households. (The importance of such oversampling for estimates of the wealth distribution has been demonstrated by Vermeulen (2014) among others.)

The survey asks individuals about the level of wealth they hold in a large number of different financial assets, the level of wealth they hold in different types of property (excluding the main residence), their outstanding debts of a variety of types and their private pension arrangements. Additionally, one respondent from each household is asked about the value of the main residence, outstanding mortgages and other liabilities associated with the main residence, and the value of household goods, collectables and vehicles. Where individuals did not know or refused to report the exact value of a particular asset or liability, they were asked a follow-up question to elicit a range in which the value lay. All wealth data are self-reported, though individuals could consult paperwork during the interview.

The components of household wealth that we examine in this report are illustrated in Figure A.1. We do not include 'physical' wealth in our analysis – that is, we do not examine changes in the reported value of household goods, collectables and vehicles. While the WAS does collect data on physical wealth, we are concerned that the values it places on physical wealth may overestimate some elements of physical wealth, in particular the contents of properties. This is because the survey asks households about the approximate *replacement value* of the household contents, and suggests that this may be similar to the insured value. Both of these metrics are likely to be substantially greater than what the contents are worth as measured by what the contents could be sold for. For reference, Table A.1 describes the prevalence and value of the components of

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physical wealth on which the WAS elicits information. We also do not include business assets. The WAS attempted to collect data on the business assets held by households, but only a small proportion of respondents provided a valuation of these assets. It is therefore likely that the information on business assets in the WAS is not representative of the business wealth held by households in Great Britain.

Figure A.1. Components of wealth considered in our analysis

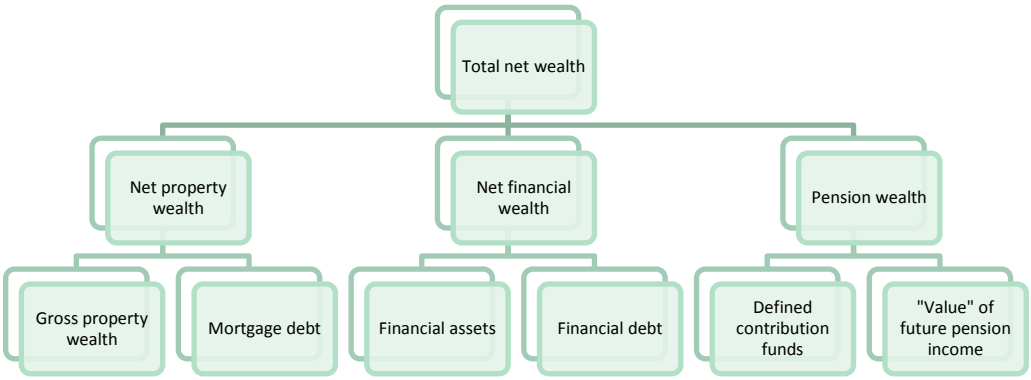


Table A.1. Prevalence and value of components of physical wealth

	% who hold	Value among holders (£s nominal)				% of physical wealth
		Mean	25th percent.	50th percent.	75th percent.	
Total physical wealth	100.0	45,474	16,700	35,500	62,100	
Goods, collectibles and valuables	100.0	38,797	15,000	27,500	45,000	85.3
Contents in main residences	100.0	34,939	15,000	25,000	45,000	76.8
Contents in other households	9.7	22,557	5,000	7,500	25,000	4.8
Collectibles and valuables	10.8	15,496	1,700	4,000	10,000	3.7
Vehicles	78.9	8,465	2,000	5,000	10,500	14.7
Cars	74.4	7,638	2,000	5,000	10,000	12.5
Motorbikes	4.2	3551	1000	2000	4000	0.3
Vans	3.9	5340	1500	3000	6000	0.5
Other vehicles	31.2	1665	50	200	600	1.1
Personalised number plates	6.5	1257	300	500	1000	0.2

Note: Weighted cross sectional analysis of all households in 2010–12.

A.2 The sample of 'stable' households for longitudinal analysis

Sample restrictions

In order to examine changes in wealth between 2006–08 and 2010–12 at the household level, we must restrict our attention to households who are observed in all the first three waves of the WAS, and who do not undergo any compositional changes that might be expected to cause changes in their wealth.

There are 30,595 households interviewed in the first wave of the WAS, of whom 18,698 (or 61.1%) were interviewed in wave 2, and 13,201 (or 43.1%) were interviewed in all the first three waves. This high rate of 'attrition' is unfortunate, but we correct, to an extent for problems that it implies (see subsection on weighting below).[14]

For the set of households who were interviewed in all three waves, Table A.2 describes the proportion of households who experienced certain compositional changes between their first and third interviews. To restrict our sample to 'stable' households (who do not undergo compositional changes that might be

Table A.2. Household transitions from wave 1 to wave 3

Household type	Number of households	As % of households in all 3 waves
Total households in all three waves	13,201	
Of which:		
No split; no-one joined	9,751	74%
No split; adult joined	584	4%
No split; grown-up child joined	92	1%
No split; child joined	713	5%
Split, grown-up child left; no-one joined	507	4%
Split, grown-up child left; adult joined	41	0%
Split, grown-up child left; grown-up child joined	103	1%
Split, grown-up child left; child joined	20	0%
Split, child left; no-one joined	136	1%
Split, child left; adult joined	21	0%
Split, child left; grown-up-child joined	17	0%
Split, child left; child joined	35	0%
Split, adult left	1,181	9%
Total stable households	**11,374**	**86%**

Note: Rows highlighted in grey are those excluded from our sample of 'stable' households.

[14] For a discussion of attrition in longitudinal surveys, see Uhrig (2008).

expected to cause changes in their wealth), we exclude households where an adult joined or left the household between waves. However, one exception to this is that if the adult is a 'grown-up child' (i.e. aged between 18 and 25); then we keep the household in the sample, but exclude the personal financial wealth of the grown-up child from the measure of household wealth in the waves in which the child is interviewed as part of the household. The rows in Table A.2 highlighted grey are those we exclude from our analysis; this leaves us with a sample of 11,374 'stable' households who are interviewed in all three waves of the WAS.

The final sample restriction we apply is to focus only on single 'benefit unit' households. These can be made up of a single adult or couple, with any children up to the age of 25.[15] This means we exclude, for example, households in which there are multiple generations of the same family living together, or households which comprise groups of young adults living together. This restriction reduces our sample to 10,600 households.

Weighting

In all the analysis in this report, we apply weights in order to ensure that results drawn from our sample of households are as representative as possible of the private household population of Great Britain.

Our weights are the product of a weight designed to correct for the first wave of the WAS not being fully representative of the population of Great Britain and a weight to correct for our sample not being fully representative of the first wave of the WAS (we refer to this as the attrition weight). The first of these are the cross-sectional weights constructed by the Office for National Statistics. These adjust for the fact that the WAS intentionally oversampled the wealthiest households, and for different response rates by Financial ACORN code, age, sex and region:[16]

$$Sample\ weight_i = ONS\ wave\ 1\ weight_i \times Attrition\ weight_i.$$

To calculate the second of these weights, we run a probit regression of whether the household appears in our sample on a range of household characteristics including wealth and income quintiles, age of the oldest person in the household, household type, employment status and highest education level achieved of the head of household of partner. We calculate weights for the likelihood of households in wave 1 appearing in our sample by taking the inverse of predicted values from the probit regression.

The results of the probit regression are shown in Table A.3. These indicate the following.

[15] This is slightly broader than the normal definition of 'benefit unit', which is the basic family unit for the purposes of administering out-of-work benefits, and can be made up of a single adult or a couple, and any dependent children or qualifying young person for whom that adult or couple are responsible.

[16] For more information on the wave 1 cross-sectional weights, see WAS User Guide Volume 1, ONS, October 2010.

- Wealthier households are more likely than less wealthy households, and higher income households less likely than lower income households, to not attrit from the WAS and to be 'stable' over time (and therefore to be in our sample).
- Households with higher levels of education are also more likely than households with lower levels of education to be in our sample.
- The youngest and oldest households are least likely to remain in the survey and to be 'stable'. In the case of older households, this non-stability is in many cases caused by the death of a household member.
- Households where all adults are unemployed are less likely to be in our sample than households where one or more adults are employed. Households in which at least one adult is self-employed are less likely to be in our sample than other households. Households in which at least one adult is retired are more likely to be in our sample than households in which no one is retired.
- Households without children are more likely to be in our sample, and single parents with children are less likely, than couple households with children.

Households with two or more families living together, or other household types (such as groups of friends living together), are excluded completely from our sample. It is therefore not possible to apply a weight for their likelihood of appearing in our sample.

Figure A.2 demonstrates the importance of weighting to our results. Because wave 1 oversampled the wealthiest individuals, wealthier households are more likely to have appeared in wave 1 than other households – therefore, weighting using the wave 1 weights decreases the estimate of total wealth. Similarly, as we found above, wealthier households in wave 1 are more likely to appear in our sample. Therefore, applying our final weights decreases estimates of total wealth further, and implies that both using the unweighted data and just applying the ONS wave 1 weights provided overestimates of wealth.

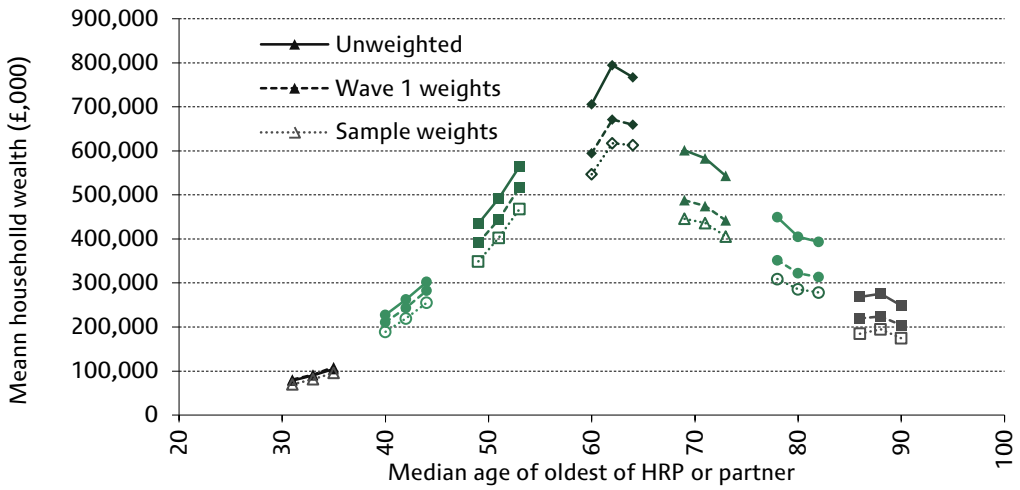
As a final point, in Table A.4, we compare the distribution of wealth among our sample of 'stable' households that we use for the longitudinal analysis in this report, with the distribution of wealth among the full representative WAS cross-sectional sample in 2010–12. Wealth at each percentile is generally similar when using the stable panel as when using the full wave 3 cross-section, which reassures us that the longitudinal analysis we conduct is not obviously unrepresentative of the population as a whole on this dimension.

Table A.3. Probit regression of whether households appear in our sample

Wave 1 household characteristics	Probability(In sample)
Wealth quintile	
1st	(ref.)
2nd	0.0404***
3rd	0.0704***
4th	0.0885***
5th	0.123***
Income quintile	
1st	(ref.)
2nd	–0.0566***
3rd	–0.157***
4th	–0.196***
5th	–0.224***
Age group	
under 25	–0.248***
25–34	–0.0648***
35–44	0.00668
45–54	(ref.)
55–64	0.0139
65–74	0.0138
75–84	–0.0693***
85 and over	–0.263***
Household type	
Single household	0.0495***
Couple without children	0.0632***
Single parent with children	–0.0867***
Couple with children	(ref.)
Two or more families/other hhold type	0
Employment status	
All adults employed	(ref.)
One adult employed, one adult not	–0.00586
All adults not employed	–0.159***
At least one adult self-employed	–0.0447***
At least one adult retired	0.0308**
Education level	
No qualifications	(ref.)
Other level	0.0402***
Degree or above	0.0740***
Observations	**29,388**

Note: Marginal effects; ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Figure A.2. Effect of weights on estimates of total wealth 2006–08 to 2010–12



Note: Total wealth is the sum of financial wealth, property wealth and pension wealth. Weighted sample of stable single benefit unit households (see Appendix A for details). Households are split into 10-year age groups based on age in 2006–08: 25–34, 35–44, 45–54, 55–64, 65–74, 75–84, 85 and over.

Table A.4. Comparison of the 2010–12 distribution of wealth for the full cross-section and our panel of stable continuously observed households

	10th percent.	25th percent.	Median	75th percent.	90th percent.
Total wealth					
Wave 3 cross-section	50	25,699	175,955	433,807	838,527
Stable panel	120	33,742	188,284	436,737	838,934
Financial wealth					
Wave 3 cross-section	–6,470	0	5,899	38,499	116,500
Stable panel	–4,880	71	7,000	40,600	120,000
Property wealth					
Wave 3 cross-section	0	0	90,000	200,000	345,000
Stable panel	0	0	97,000	195,950	320,832
Pension wealth					
Wave 3 cross-section	0	939	40,363	162,637	406,051
Stable panel	0	2,007	46,866	172,930	421,290

Note: The wave 3 cross-section shows weighted sample of all households interviewed in 2010–12, weighted using cross-sectional weights. The stable panel shows the households that are stable and observed across all three waves of the WAS, weighted using the panel weights described above.

B. Decomposing Active and Passive Changes to Financial Wealth

Here we describe in detail how we estimate the contribution of active and passive saving to the change in gross financial wealth described in Section 5.1. Note that we characterise all the change in financial debt as active saving.

Method

Active saving is defined as the amount a household saves or invests in a particular financial asset over time (and can be negative if the household withdraws from a particular asset). Passive saving is the interest or investment return that would have accrued if the household made no additions or withdrawals from the asset over the period in question.

$$\Delta gross\ financial\ wealth = \ Interest\ or\ investment\ return$$

$$+Amount\ saved\ or\ invested.$$

The WAS records the stock of wealth held in financial assets at the time of each interview, but not the flows into and out of those assets. We estimate passive saving for each household using their reported asset holdings and average savings/investment returns indices. We can then estimate active saving for each asset type by deducting the estimated passive change in wealth from the actual change in the reported level of wealth held in that asset.

We estimate active and passive saving for six groups of assets. Table B.1 describes the assumptions used about the interest/investment return for each group. For current accounts and informal assets, we assume that there is no passive change in the (nominal) value of these assets over time. We assume that savings accounts and National Savings Products accrue a rate of interest given by the Bank of England's quoted household interest rate on 'instant access savings' and that cash ISAs, child trust funds and other safe investments accrue a rate of interest given by the Bank of England's quoted household interest rate on cash ISAs. Finally, we assume that the passive change in value of stocks, shares and other risky investments is in line with the FTSE total return index.

It is important to highlight that households might face different returns on particular assets compared to these average indices; for example, if they hold particular types of shares that have different returns to the FTSE total return index, or if they are more or less active about moving their savings to take advantage of better interest rates. To the extent that this is the case, we may over- or underestimate passive saving, and therefore under- or overestimate the extent of active saving undertaken by a household for a given change in reported wealth.

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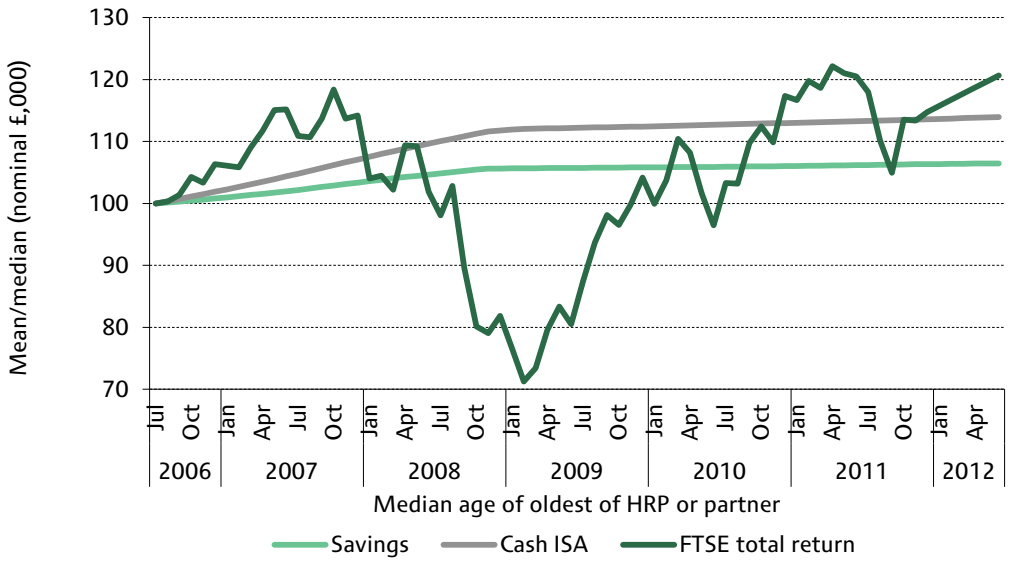
Table B.1. Assumptions about interest/investment returns

Group	Assets included	Assumption/ index
Current accounts	Current accounts	0%
Savings accounts	Saving accounts and National Savings Products	Bank of England 'instant access savings' index
Cash ISAs	Cash ISAs and child trust funds	Bank of England 'cash ISA deposits' index
Other safe investments	Fixed term bonds, unit and investment bonds, child trust funds, investment ISAs, insurance saving products, other investments	Bank of England 'cash ISA deposits' index
Risky investments	UK and overseas gilts, UK and overseas shares, employee shares	FTSE total return index
Informal assets	Informal assets	0%

Figure B.1 shows what happened to the returns to financial assets over the period between summer 2006 and summer 2012. The indices for savings accounts and cash ISAs are those implied by monthly interest rates. The shape of both the savings and cash ISA indices reflect that there were positive interest rates on both (averaging 2.3% and 4.9% per year, respectively) until around the middle of 2008 when interest rates for both savings accounts and cash ISAs fell to near zero, on average. Equity prices over this period were much more volatile, falling by 40% between October 2007 and February 2009, before recovering back to 2007 levels over the following two years.

Figure B.1. Financial asset indices



Source: Bank of England 'instant access savings' and 'cash ISA deposits' indices, and the FTSE total return index.

The passive change in gross financial wealth will therefore depend on what proportion of their financial wealth households hold in different asset types, and the timing of their interviews. For example, a household interviewed in July 2006 and again in July 2008 would have seen equity prices fall by 2% between waves 1 and 2; a household interviewed a year later in both waves would have seen equity prices fall by 21%. However, on average, households saw large falls in equity prices between waves 1 and 2, and large increases in equity prices between waves 2 and 3.

Results

To illustrate the mechanics in the estimation of passive and active saving by type of asset, Table B.2 shows our estimate of the average amount of active and passive saving across all households for some selected asset types. The predicted value in each wave is what we predict, using the indices shown in Table B.1, the asset would have been worth if households made no additions or withdrawals to the asset between waves. Passive saving is calculated as the predicted value less the reported value in the previous wave. Active saving is then calculated as the changed in the reported value, less the estimated passive saving (or equivalently, the reported value less the predicted value).

Table B.2 reveals some differences in average active and passive saving among financial asset types. We assume that current accounts have 0% interest rate so all changes in current accounts are assumed to be active. We find negative saving in savings accounts, on average, and positive active saving in cash ISAs on average. This may indicate that people withdrew money from savings accounts, or refrained from investing more money in savings accounts, in order to invest in ISAs. For both other safe investments and risky investments, there is positive active saving in the first period, and then negative in the second period.

Having estimated the level of active and passive saving for each household for each type of asset, we sum these together across types of asset to compare estimated active and passive saving for households in different age bands. We group assets into two categories: 'safe' (i.e. current accounts, savings accounts, cash ISAs, other safe investments and informal assets) and 'risky' (i.e. risky investment assets such as shares).

Figure B.2 shows mean passive and active saving in both safe and risky financial assets for each household age group in the two periods. There was reasonably large financial wealth accumulation, on average, for all age groups between waves 1 and 2. We find that most of this came from active saving in both safe and risky assets. There was also positive passive saving on average, despite the drop in asset prices shown in Figure B.1. This is because, on average, holdings of risky investment assets are relatively small, and so the negative passive saving in risky assets was more than offset by the positive passive return on safe assets. However, while this may be the case on average, households with relatively large amounts invested in equities will have been affected to a greater degree by the change in equity prices associated with the financial crisis.

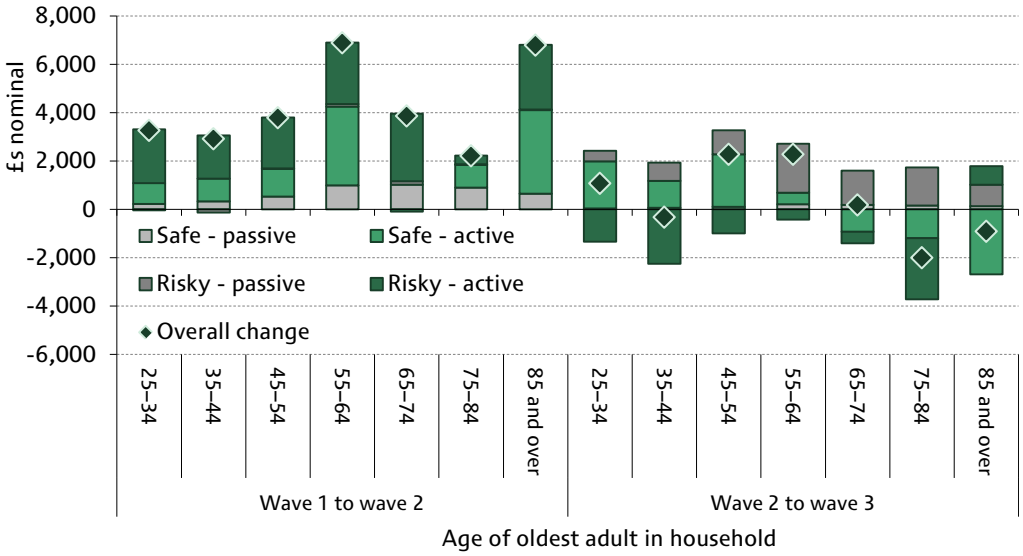
Table B.2. Estimated active and passive saving in types of financial wealth

	Mean value (£s nominal)		
	2006–08	2008–10	2010–12
Current accounts			
Reported value	2,186	2,490	3,123
Predicted value		2,186	2,490
Passive saving		0	0
Implied active saving		305	633
Savings accounts			
Reported value	13,205	13,081	13,090
Predicted value		13,637	13,148
Passive saving		432	67
Implied active saving		–556	–58
Cash ISAs			
Reported value	4,272	5,787	6,573
Predicted value		4,563	5,855
Passive saving		291	68
Implied active saving		1,224	718
Other safe investments			
Reported value	13,648	18,979	17,695
Predicted value		14,562	19,204
Passive saving		915	225
Implied active saving		4,417	–1,509
Risky investments			
Reported value	7,456	7,033	8,489
Predicted value		6,277	8,960
Passive saving		–1,179	1,926
Implied active saving		757	–471

Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

The picture for active and passive changes between waves 2 and 3 is quite different. In this period, interest rates on safe assets were close to zero, so passive saving in safe assets was very small. However, as equity prices increased, there was passive saving in risky assets. Our estimates suggest active saving in safe assets on average for households below typical retirement ages, but negative active saving on average for those over retirement age. For all age groups other than the over 85s, we estimate negative active saving in risky assets on average.

Figure B.2. Active and passive changes in financial wealth by age group



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

C. Decomposing Active and Passive Changes to Property Wealth

Here we describe in detail how we estimate the contribution of active and passive saving to the change in gross housing wealth described in Section 5.2. Note that we characterise all the change in mortgage debt as active saving (or 'dissaving' where mortgage debt has increased).

Method

With regard to gross housing wealth, one can think of a change in wealth as arising from three sources: house price growth that would have occurred if households maintained the same property assets and did nothing to improve them; price changes from home improvements undertaken; and the net change from buying or selling property:

$$\begin{aligned}\Delta gross\ property\ wealth = {} & House\ price\ growth \\ & + Value\ of\ home\ improvements \\ & + Net\ change\ from\ buying\ and/or\ selling\ property.\end{aligned}$$

The first of these represents passive saving, while the latter two are components of active saving (or more accurately, active saving in property wealth, as this may represent changes to the household portfolio rather than changes in overall wealth).

We estimate the house price growth that would have occurred if households did nothing, using regional house price indices (of which more below) for a household's main residence, and the UK average house price index for other property wealth (as we do not know where this property is located). We then estimate active saving as the difference between the total change in reported gross property wealth and the estimated change in gross property wealth due to changes in house prices.[17]

There are two important limitations to this method for decomposing gross property wealth changes into active and passive changes. First, households may see house price changes that differ from those estimated using regional house prices, either because changes in house prices vary within the region or over different types of property. Second, our measure of the change in gross property wealth is calculated using households' self-reported estimates of the value of their property. If households do not have accurate knowledge of the value of their properties, then the misperception over changes in house price values will be conflated with our estimate of active saving in property wealth.

[17] The WAS collects data on whether households have extended their property over the past two years, but respondents are not asked about the change in the value of their property as a result of these improvements.

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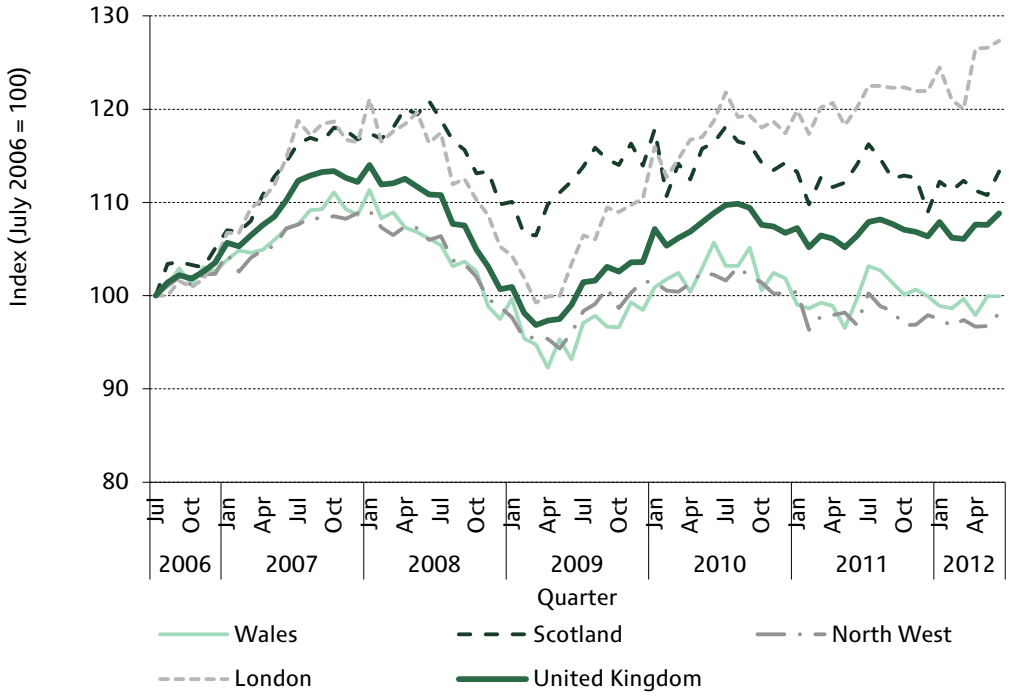
An important decision in carrying out this exercise is the choice of the house price index. There are a number of different indices, each with a different methodology and its own strengths and weaknesses. (We do not discuss these here; see Chandler and Disney (2014) for a discussion of different indices.) We use the ONS house price index, which provides an estimate of house price changes at the regional level for an average house defined with reference to the houses transacted over the latest three years. Figure C.1 summarises changes in house prices, according to the ONS house price index, for the UK as whole and for selected regions between July 2006 and June 2012. For the UK as a whole, following an initial rise, house prices then fell by 15% between October 2007 and March 2009, before steadily increasing again thereafter. Some regions followed considerably different trends to the UK as a whole. In particular, London saw a much greater increase in house prices between March 2009 and June 2012 than the rest of the UK.

Figure C.1. Change in nominal house prices over time (selected regions)



Source: ONS House Price Indices, available at http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=House+Price+Indices.

The regional and temporal variation in house price changes means that different households in our sample will have seen different passive changes to their property wealth between their WAS interviews. Given the timing of the WAS surveys, on average households in our sample saw a fall in house prices (and therefore a passive decline in their property wealth) between waves 1 and 2, and an increase in house prices (and therefore positive passive saving in property wealth) between waves 2 and 3.

Implied results

Table C.1 shows the estimates that result from using this method for mean active and passive saving in property wealth across all households. In 2006–08, mean reported gross property wealth was £150,695 (lower than that described in Table 3.1, which was mean gross property wealth among those with property wealth). Given changes in regional and UK average house prices between households' interviews, we would predict average gross property wealth in 2008–10 of £143,702 (i.e. passive saving of –£6,993). In fact, mean reported gross property wealth in 2008–10 was £148,733, implying that households actively saved £5,031 in property wealth over this period. A similar exercise suggests changes in the opposite direction between waves 2 and 3: passive saving of £4,185 due to the growth in house prices over this period, but active dissaving in property of £1,361.

Table C.1. Estimated active and passive saving in property wealth

	Mean value (£s nominal)		
	2006–08	2008–10	2010–12
Reported gross property wealth	150,695	148,733	151,556
Predicted based on ONS HPI		143,702	152,918
Passive saving		–6,993	4,185
Implied active saving		5,031	–1,361

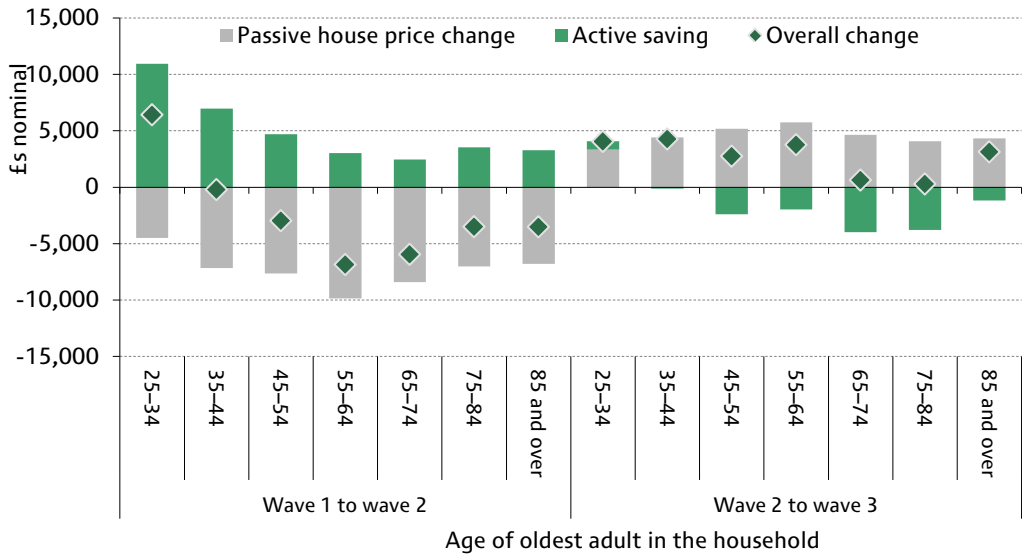
Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

To get a clearer understanding of saving behaviour, it is useful to look at estimated active and passive saving by age group, as shown in Figure C.2. This shows a negative passive change in gross property wealth between waves 1 and 2, and a positive change between waves 2 and 3, for all age groups. The estimated passive changes are, on average, largest in absolute terms for households aged 55–64, as these households have the highest average gross property wealth. Given the change in reported property wealth, this implies positive active saving for all age groups between waves 1 and 2, and negative active saving for virtually all age groups in between waves 2 and 3.

The larger estimates for active saving among younger households are explained by the fact that these households are most likely to purchase a first home, 'upsize' to a more expensive home, or extend their home (as shown in Figure C.3). For example, between waves 1 and 2, more than 4% of households aged 25–34 purchased their first home and nearly 5% moved home, compared to 1% and 3%, respectively, of households aged 35–44, and less than 1% and 2%, respectively, of households aged 55–64.

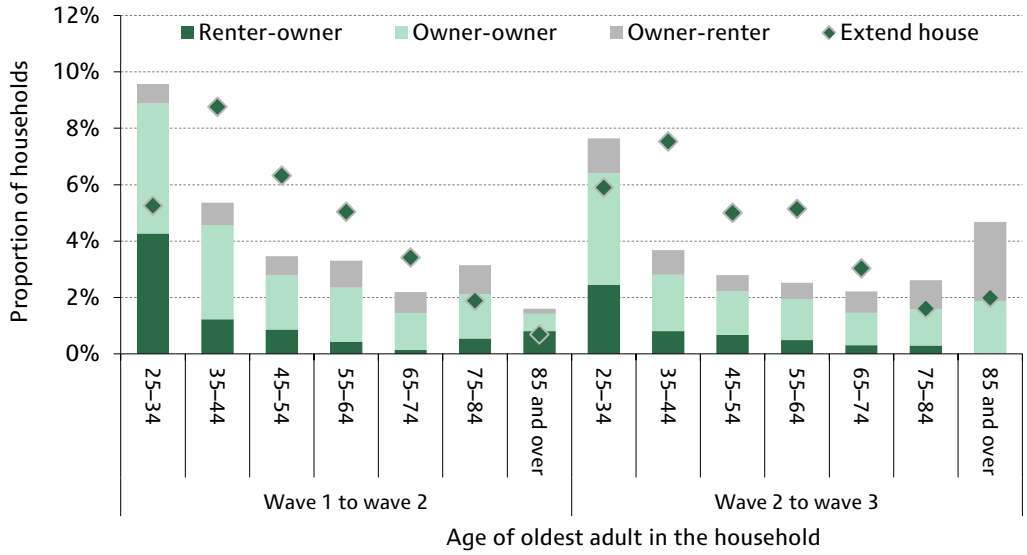
What could explain the different patterns of active saving over the two time periods shown in Figure C.2? In part, the lower active saving between waves 2 and 3 than between waves 1 and 2 may be due to younger households being less likely to purchase or move home in the later period, which Figure C.3 shows is the case. However, the difference in the proportion of households moving or

Figure C.2. Active and passive changes in gross property wealth, by age



Note: Weighted sample of stable single benefit unit households (see Appendix A for details); 10% of households with the largest house price changes are excluded.

Figure C.3. Proportion of households moving house and extending their house between waves



Note: Weighted sample of stable single benefit unit households (see Appendix A for details).

extending their homes is not that great. Furthermore, it is not clear why older households are, on average, actively dissaved between waves 2 and 3, but on average actively saved over the previous two-year period.

An alternative explanation is that there could be some bias in our estimates of passive and active wealth changes due to misperceptions over changes in property prices. One way to examine this issue further is to look at a subset of households who we know undertook no active saving between waves – that is households that do not move or extend their house and for whom, therefore, no active saving should be implied. In Figure C.4, we illustrate our estimates of mean

active and passive changes in the value of main residence for these households. (We restrict our focus to the main residence because the WAS does not record whether households bought, sold or extended other properties, and we can more accurately estimate the passive price change for the main residence as we know in what region it is located.)

Despite this group having made no active accumulation of primary housing wealth, our estimates of mean active saving remain positive for all age groups between waves 1 and 2 and remain negative for all age groups between waves 2 and 3. This suggests that either households' house price growth differs systematically from the ONS house price index (which we would not expect on average if our sample is representative of the population) or, more likely, that there is misperception among households about the change in their property values. For example, if households were slow to realise that house prices declined between waves 1 and 2, and do not realise how much they increased again between waves 2 and 3, then that would result in the pattern of implied active changes observed in Figure C.4.

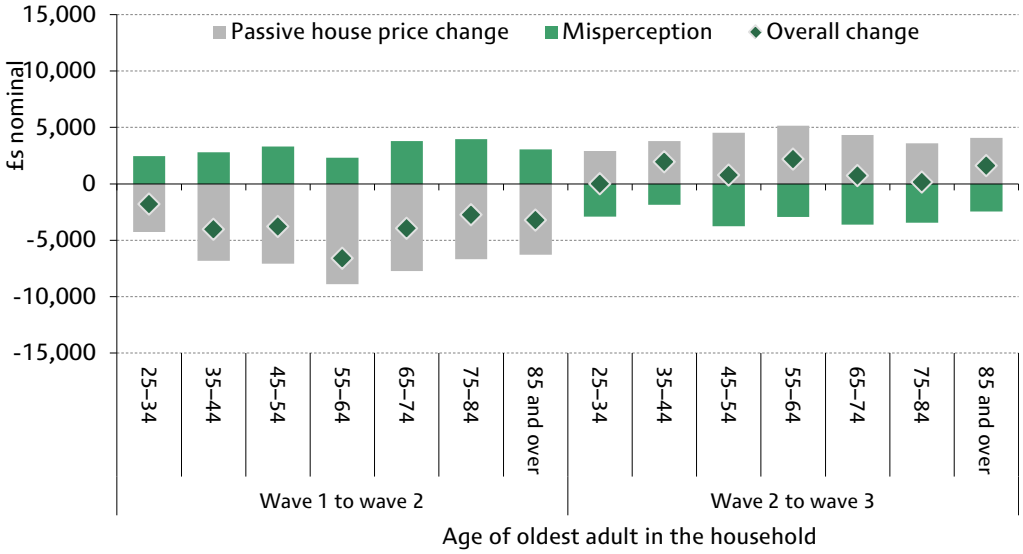
Table C.2. Grouping property valuation responses

	% of households		
	Wave 1	**Wave 2**	**Wave 3**
Proportion who reported:			
Professional valuation	15.9	10.9	11.6
Price of similar property	53.5	41.5	41.9
Knowledge of local market	22.7	21.2	21.5
Purchase price or earlier valuation	2.1	3.1	3.0
Council tax band	0.1	0.2	0.2
Guess	16.8	32.5	32.0
Other	0.8	0.8	0.6
Proportion whose most accurate source was:			
Professional valuation	15.9	10.9	11.6
'Estimate'	68.7	58.6	58.5
Guess	15.4	30.5	29.9

Note: Weighted sample of stable single benefit unit households (see Appendix A for details). Percentages of households giving each answer sum to more than 100 because households can report using more than one method. Where a household uses more than one method, we take their 'most accurate'.

As part of the WAS interview, households are asked what information they based their reported house value on. A choice of six options was provided, and households could report using multiple sources of information. Table C.2 sets out the proportion of households reporting the use of each source of information. The price of a similar property was what most households reported basing their estimated values on. However, what is perhaps most striking is the increase in the proportion of households reporting some aspect of guess work in their reported house value. In the lower panel of Table C.2, we group households according to the most 'accurate' source of information they reported using

Figure C.4. Active and passive changes in value of main residence by age – households who did not move or extend their home only



Note: 10% of extreme house price changes excluded.

(where the 'estimate' group includes those who reported using the price of similar property, knowledge of the local market or purchase price or an earlier valuation, while the 'guess' group includes those who only based their reported value on council tax bands, guess work or other sources).

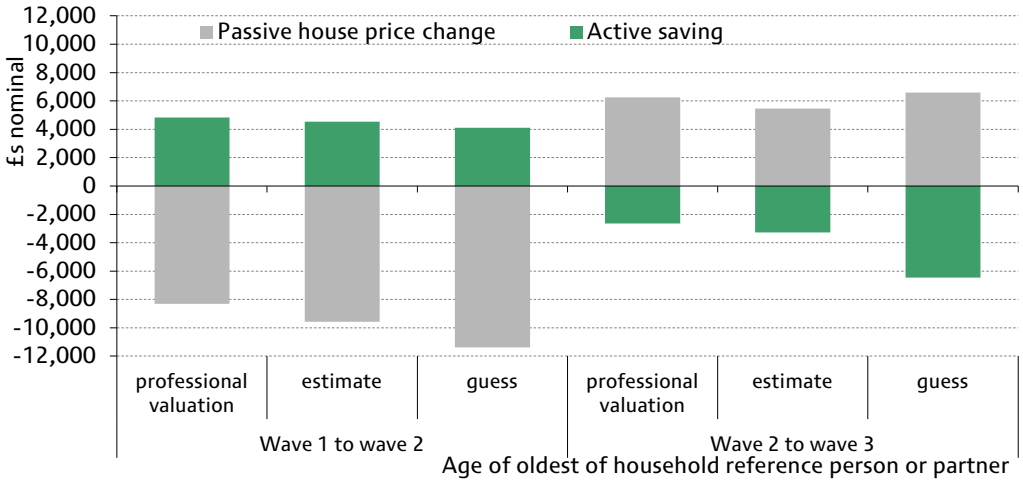
We might expect, for example, those who report basing their reported house price value on a professional valuation to be less likely to misperceive their house price value than those who report simply guessing. In Figure C.5, we again show the estimated mean passive and active change in the value of the main residence for the sample of households who did not move and made no home improvements (i.e. for whom the estimated active change may be considered a 'misperception'), but split by source of information rather than age. Between waves 1 and 2, our estimates of active saving are actually similar for households using different information sources. However, between waves 2 and 3, we do find the greatest active saving (i.e. likely misperception) among households that guessed their property price, and the least among those using a professional valuation.

Final method used

The results above suggest that there is a fair amount of misperception of house prices among households, and therefore that our proposed method for distinguishing active and passive saving is likely to overstate the magnitude of active saving and dissaving. We therefore adopt a hybrid approach: for households who moved house or who reported extending their main residence, we estimate active and passive saving as described above. For these households, the change in property wealth arising from these activities is likely to be greater than the error from misperceived house prices. For households who did not undertake such activities, we assume that they made no active change to their

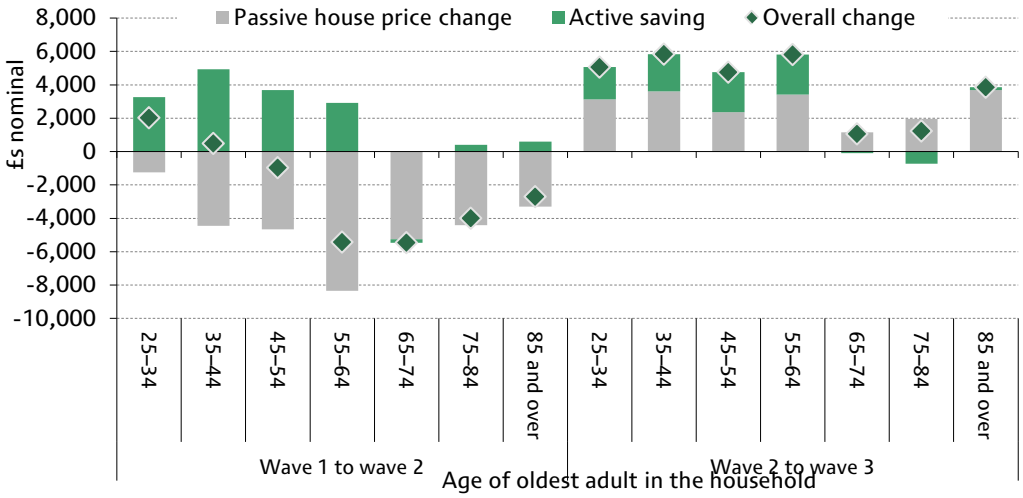
property wealth holdings over this period, and that all the reported change in values is passive saving (or dissaving) resulting from the change in asset prices. For other property wealth, we estimate active and passive saving as described above. Figure C.6 updates Figure C.4 using our final method.

Figure C.5. Comparing estimates of active–passive saving according to how households value their property



Note: Weighted sample of stable single benefit unit households (see Appendix A for details); 10% of extreme house price changes excluded.

Figure C.6. Active and passive changes in net property wealth, by age



Note: 10% of households with the largest house price changes are excluded.

D. Decomposing 'Valuation' and 'Non-valuation' Changes in Pension Wealth

DB pension wealth in the WAS is estimated as the amount of money that would be required now to purchase the pension entitlements (future pension income, payable from the retirement age for the scheme, and lump sum) that the individual has accrued rights to. This is calculated as

$$W_t = \frac{A_{R,t} Y^P{}_t + L_t}{(1 + r_t)^{R - a_t}},$$

where Y^P is annual pension income (estimated as an annual accrual fraction multiplied by tenure in the current scheme multiplied by gross annual pay at time of interview), A_R is an age- and sex-specific annuity factor at pension age, R, L_t is the lump sum paid at retirement, r is the SCAPE discount rate[18] and a is age.

We decompose changes in DB pension wealth into 'valuation changes' and 'non-valuation changes'. The 'non-valuation change' in current DB pension wealth between waves t and $t - 1$ is calculated as the difference between the value of wave t pension entitlements, valued using wave 1 annuity and discount rates, and the value of wave $t - 1$ pension entitlements, also valued using wave 1 annuity and discount rates. Specifically:

$$Non\text{–}valuation\ change\ w_1 to\ w_2 = \frac{A_{R,1} Y_2^p + L_2}{(1 + r_1)^{R - a_{t-1}}} - \frac{A_{R,1} Y_1^p + L_1}{(1 + r_1)^{R - a_1}};$$

$$Non\text{–}valuation\ change\ w_2 to\ w_3 = \frac{A_{R,1} Y_3^p + L_3}{(1 + r_1)^{R - a_1}} - \frac{A_{R,1} Y_2^p + L_2}{(1 + r_1)^{R - a_1}}.$$

The 'valuation change' between waves $t - 1$ and t is the difference between the actual change in pension wealth between wave $t - 1$ and t and the non-valuation change. Specifically:

$$Valuation\ change\ w_1 to\ w_2 = \frac{A_{R,2} Y_2^p + L_2}{(1 + r_2)^{R - a_2}} - \frac{A_{R,1} Y_2^p + L_2}{(1 + r_1)^{R - a_1}};$$

$$Valuation\ change\ w_2 to\ w_3 = \frac{A_{R,3} Y_3^p + L_3}{(1 + r_3)^{R - a_3}} - \frac{A_{R,1} Y_3^p + L_3}{(1 + r_1)^{R - a_1}} + \frac{A_{R,1} Y_2^p + L_2}{(1 + r_1)^{R - a_1}} - \frac{A_{R,2} Y_2^p + L_2}{(1 + r_2)^{R - a_2}}.$$

[18] The Superannuation Contributions Adjusted for Past Experience discount rate. For more information, see https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/81610/consult_unfunded_pension_condoc.pdf.

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Formulating the 'valuation' and 'non-valuation' changes in this way means that they can be summed across waves to give estimates of the valuation and non-valuation changes in pension wealth across the full period. Specifically:

$$Non\text{–}\,valuation\ change\ w_1 to\ w_3 = \frac{A_{R,1}Y_3^p + L_3}{(1+r_1)^{R-a_{t-1}}} - \frac{A_{R,1}Y_1^p + L_1}{(1+r_1)^{R-a_1}};$$

$$Valuation\ change\ w_1 to\ w_3 = \frac{A_{R,3}Y_3^p + L_3}{(1+r_3)^{R-a_3}} - \frac{A_{R,1}Y_3^p + L_3}{(1+r_1)^{R-a_1}}.$$

References

Atkinson, A. B. and Harrison, A. J. (1978), 'Distribution of personal wealth in Britain', CUP Archive.

Attanasio, O. P. and Rohwedder, S. (2003), 'Pension wealth and household saving: evidence from pension reforms in the United Kingdom', *American Economic Review*, vol. 93(5), pp. 1499–1521.

Banks, J. and Blundell, R. (1994), 'Household savings behaviour in the United Kingdom', in J. Poterba (ed.), *International Comparisons of Household Saving*, Chicago: Chicago Univ. Press for NBER, pp. 169–205.

Banks, J., Blundell, R. and Smith, J. P. (2003), 'Wealth portfolios in the US and the UK', in D. Wise (ed.), *Perspectives on the Economics of Aging*, Chicago: University of Chicago Press, pp. 205–46 (http://core.ac.uk/download/pdf/6871681.pdf).

Banks, J., Crawford, R., Crossley, T. and Emmerson, C. (2013), 'Financial crisis wealth losses and responses among older households in England', *Fiscal Studies*, vol. 34, pp. 231–54.

Banks, J., Crawford, R. and Tetlow, G. (2008), 'What does the distribution of wealth tell us about future retirement resources?', DWP Research Report no. 665 (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214436/rrep665.pdf).

Banks, J., O'Dea, C. and Oldfield, Z. (2010), 'Cognitive function, numeracy and retirement saving trajectories', *Economic Journal*, vol. 120(548), pp. F381–F410.

Blundell, R., Crawford, R., French, E. and Tetlow, T. (2016), 'Comparing retirement wealth trajectories on both sides of the pond', *Fiscal Studies*, vol. 37(1), forthcoming.

Broughton, N., Kanabar, R. and Martin, N. (2015), 'Wealth in the downturn: winners and losers', Social Market Foundation (http://www.smf.co.uk/wp-content/uploads/2015/03/Social-Market-Foundation-Publication-Wealth-in-the-Downturn-Winners-and-losers.pdf).

Chandler, D. and Disney, R. (2014), 'Housing market trends and recent policies', in C. Emmerson, P. Johnson and R. Joyce (eds), The IFS Green Budget: February 2015, London: Institute for Fiscal Studies (http://www.ifs.org.uk/publications/7530).

Crawford, R. and Hood, A. (2015), 'A tale of three distributions: inheritances, wealth and lifetime incomes', Institute for Fiscal Studies (IFS), Working Paper WP15/14 (http://www.ifs.org.uk/uploads/publications/wps/WP201514.pdf).

Crawford, R. and Tetlow, G. (2012), 'The evolution of pension wealth and contribution dynamics', in J. Banks, J. Nazroo and A. Steptoe (eds), *The Dynamics*

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of Ageing: Evidence from the English Longitudinal Study of Ageing 2001-10 (Wave 5), London: Institute for Fiscal Studies (IFS).

Crossley, T. F. and O'Dea, C. (2010), 'The wealth and saving of UK families on the eve of the crisis', Institute for Fiscal Studies (IFS), Report R71 (http://www.ifs.org.uk/comms/r71.pdf).

Disney, R., Johnson, P. and Stears, G. (1998), 'Asset wealth and asset decumulation among households in the retirement survey', *Fiscal Studies*, vol. 19, pp. 153–74.

Hills, J. and Bastagli, F. (2013), 'Trends in the distribution of wealth in Britain', in J. Hills, F. Cowell, H. Glennerster, E. Karagiannaki and A. McKnight (eds), *Wealth in the UK: Distribution, Accumulation and Policy*, Oxford: Oxford University Press.

Hills, J., Cunliffe, J., Obolenskaya, P. and Karagiannaki, E. (2015), 'Falling behind, getting ahead: the changing structure of inequality in the UK, 2007–2013', Centre for Analysis of Social Exclusion (CASE) Paper SPCCRR05 (http://sticerd.lse.ac.uk/dps/case/spcc/rr05.pdf).

Hood, A. and Joyce, R. (2013), 'The economic circumstances of cohorts born between the 1940s and the 1970s', Institute for Fiscal Studies (IFS), Report R89 (http://www.ifs.org.uk/comms/r89.pdf).

Karagiannaki, E. and Hills, J. (2013), 'Inheritance, transfers and the distribution of wealth', in J. Hills, F. Bastagli, F. Cowell, H. Glennerster, E. Karagiannaki and A. McKnight (eds), *Wealth in the UK: Distribution, Accumulation and Policy*, Oxford: Oxford University Press.

Kumar, A., Ussher, K. and Hunter, P. (2014), 'Wealth of our nation: rethinking policies for wealth distribution', The Smith Institute, London.

Office for National Statistics (2009), 'Wealth in Great Britain, Main Results from the Wealth and Assets Survey 2006/2008' (http://www.ons.gov.uk/ons/rel/was/wealth-in-great-britain/main-results-from-the-wealth-and-assets-survey-2006-2008/index.html).

Office for National Statistics (2012), 'Wealth in Great Britain Wave 2, 2008–2010 (Part 2)' (http://www.ons.gov.uk/ons/rel/was/wealth-in-great-britain-wave-2/2008-2010--part-2-/index.html).

Office for National Statistics (2014a), 'Wealth in Great Britain Wave 3, 2010–2012' (http://www.ons.gov.uk/ons/rel/was/wealth-in-great-britain-wave-3/2010-2012/index.html).

Office for National Statistics (2014b), 'Pension Trends – Chapter 7: Private Pension Scheme Membership, 2014 Edition', http://www.ons.gov.uk/ons/dcp171766_382136.pdf.

Office for National Statistics (2015), Social Survey Division, Wealth and Assets Survey, Waves 1-3, 2006-2012: Special Licence Access [computer file], 13th

Edition, Colchester, Essex: UK Data Archive [distributor], February 2015. SN: 6415 (http://dx.doi.org/10.5255/UKDA-SN-6415-9).

Piketty, T. (2014), *Capital in the 21st Century*, Cambridge: Harvard University.

Saez, E. and Zucman, G. (2014), 'Wealth inequality in the United States since 1913: Evidence from capitalized income tax data', National Bureau of Economic Research (NBER) working paper no. 20625.

Uhrig, S. C. N. (2008), 'The nature and causes of attrition in the British Household Panel Survey', Institute for Social and Economic Research (ISER) Working Paper 2008-05 (https://www.iser.essex.ac.uk/files/iser_working_papers/2008-05.pdf).

Vermeulen, P. (2014), 'How fat is the top tail of the wealth distribution?', European Central Bank (ECB) Working Paper Series no. 1692.