The Distribution of Wealth in the UK

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Preface

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1. Introduction

There are three broad reasons why households might want to accumulate wealth. Firstly, asset stocks are partly a provision for predictable future periods of low income (such as retirement) or high consumption costs (such as those associated with children). Secondly, holding assets can be a precaution against periods of *un*predictably low income (such as unemployment) or high consumption costs (such as illness). The third reason is that most forms of saving earn a positive real return which might outweigh the costs of forgoing current consumption for some households. These three motives for saving lead us to expect very different patterns of asset holding both across and within household types. These differences will be exacerbated by the fact that asset balances are integrally related to past shocks to the household's income or consumption as well as future plans. In addition, different asset types will play very different roles in household saving plans - high pension saving, for example, is of very little benefit if an individual becomes unemployed. In short, economics tells us a lot about how we might expect households to save, and the degree to which they actually do this will greatly affect the impact of government policy towards the taxation of savings. Yet there is almost no empirical evidence concerning the distribution of wealth at the household or individual level in the UK and even less about how portfolios vary by household type and income.[1]

There are a number of reasons why economists concern themselves with the level of household saving and advocate government policies towards household saving. Paternalism - the idea that individuals might not adequately provide for their retirement or might choose to rely on social security payments thus unnecessarily increasing government expenditure - often figures in these. Other arguments concern economic growth. One apparent suggestion is that motivation and economic performance will be enhanced by increasing the number of individuals with a direct stake in the performance of the economy through the holding of assets. Alternatively, insufficient saving is argued to put a brake on the level of the capital stock, and thus on the rate of economic growth.[2] Whilst this paper presents indirect evidence on the level of household saving, we do not address these arguments. We simply present a disaggregate analysis of the distribution of household wealth stocks for the first time.

Until now, most work on wealth in the UK has relied on data produced by the Inland Revenue, which collects data to calculate inheritance duties. More specifically, the Inland Revenue takes data from estates and weights these amounts according to age-specific mortality rates. The two obvious problems with such an approach are the very small sample sizes for younger groups and the possibility

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[1] Some examples are Inland Revenue (1993) and Atkinson and Harrison (1978).

[2] It is worth noting that while the level of national saving is often said to determine the return on investment and therefore the capital stock in a closed economy, its role in a small increasingly open economy like the UK is far less clear.

of *inter-vivos* transfers. Added to these problems at the aggregate level, the lack of disaggregated data and the absence of income and demographic information mean that the Inland Revenue data can tell us relatively little about the process of wealth accumulation or the extent of correlation between the two distributions of greatest interest to us - the distribution of wealth and the distribution of income. In contrast, studies of saving at the household level have tended to concentrate on analyses of consumption growth and addressed saving only as the residual between income and consumption.

The empirical analysis of household savings is also complicated by measurement and definitional problems. Private pensions contributions are quite clearly saving but difficult to measure - particularly that part of contributions made by employers. State social security contributions are saving in so far as they confer clear rights to future benefits. Mortgage expenditure has elements of both saving (in so far as it will provide future consumption of housing) and current consumption but most people would regard much of it as saving. This is probably not the case for expenditure on durable goods - which actually has similar properties. Therefore this paper concerns itself primarily with presenting the distribution and composition of *financial* wealth in 1991/92 using a new data set - that is, we do not consider housing wealth or accrued pension wealth for the majority of the analysis. Having said this, we draw on some evidence on pension wealth and compute some estimates of net housing wealth for our sample numbers to put this analysis of financial wealth into a broad perspective of total saving. In addition, we use an earlier year of data to analyse how some of these figures have changed since 1987 - a period of enormous variation in financial conditions also characterised by significant reform to the taxation of personal saving.

The data we use are drawn from the Financial Research Survey (FRS), compiled privately by National Opinion Polls (NOP). We have access to these data from 1987 to 1992, but have used data for the financial years at either end of this period - 1987/88 and 1991/92. This data set allows us to analyse the relationship between financial wealth and a range of other characteristics such as income, age and demographic structure, in a way that has not previously been possible in the UK. The detailed information available on the form in which wealth is held enables us to form views about the distributional consequences of government action in the capital market. We present detailed analysis of each cross-section without attempting to control for cohort (or date-of-birth) effects. This requires an important qualification when we present patterns of saving by age. Whilst the age structure of saving in any particular year is an important statistic in itself, it cannot, in general, be used to infer savings patterns for a young household in the future from those of an older household now. This is particularly true in the current economic and demographic climate of the UK. Households that retire in 1991 are different from those that will retire in, say, 2021 in two very important ways. Firstly, young cohorts will usually be richer than their predecessors as a result of economic growth, and this will presumably affect the level and composition of their saving. Secondly, however, the choices older cohorts have faced during their

work histories are very different from those faced by working households today - not only are there a very different range of savings vehicles available but it is already clear that the retirement income provided by the state pension will be worth very little and private provision for retirement will be much more important for younger cohorts.[1] For both these reasons, we would expect personal wealth of households currently retired to be less than that of retired households in the future. For these reasons, then, the age profiles presented here cannot be separately identified from cohort or even time effects. A truly dynamic analysis of household saving and wealth accumulation is left as a topic for a significant future research programme.[2]

The layout of the paper is as follows. In Section 2, we discuss in some detail the data used. In particular, we pay attention to how the demographic composition of the FRS compares with the distribution of the population as a whole and with the composition of the Family Expenditure Survey (FES) - the foremost household-level data set in the UK. In Section 3, we describe the distribution of wealth in the UK. This analysis is most detailed for the distribution of non-housing, non-pension financial wealth in 1991/92. In addition, however, we consider the size of pension rights and housing wealth. Further, we consider some measures of how the distribution of wealth might have changed since 1987 - the earliest year we have available. In Section 4, we summarise our findings and draw conclusions.

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[1] See Dilnot, Disney, Johnson and Whitehouse (1994).

[2] Some papers have addressed this problem, but not directly on wealth or savings data. Banks and Blundell (1994b) consider a cohort-based analysis of saving and consumption using Family Expenditure Survey data, and King and Leape (1989) estimate a life-cycle model of asset-holding behaviour using Canadian data.

2. The Financial Research Survey

The data used in this study come from the Financial Research Survey, which is carried out by National Opinion Polls in six-month spells. Respondents are chosen by random selection of adults aged 16 plus, covering both electors and non-electors. Respondents are then interviewed in their homes and asked about the type but not the amount of assets and liabilities that they hold. Approximately 40,000 people are interviewed at this stage in a rolling survey over the six-month period. A random selection of a tenth of these are then reinterviewed by telephone to construct 'value data'. At this second interview, respondents are asked the value of the assets and liabilities they hold, but values are given within bands and not as exact amounts. This second interview takes place within three weeks of the initial interview. In this paper, we make use of the value data from four of these surveys, covering April 1987 to March 1988 and April 1991 to March 1992.[1] This gives us a total sample size of 6622 individuals in 1991/92 and, due to a different sampling process, almost twice as many observations in the 1987/88 period.[2] For these households, we have banded information on values of holdings of 53 assets and liabilities. Appendix A presents summary statistics for the number of households holding each disaggregate asset type in the 1991/92 sample along with the numbers of households in the top value band. We talk more about the analysis of banded data later in this section.

Testing the robustness of FRS data

The data have been tested in two ways. Firstly, the demographics of the sample have been compared with the demographics of the sample in the Family Expenditure Survey; and secondly, asset holdings have been compared with holdings in data from the Inland Revenue and the Central Statistical Office (CSO). Before making these comparisons, however, it is necessary to discuss the grossing-up of the sample to match population statistics.

When we compare wealth holdings in our sample with aggregate statistics below, the data have been multiplied up in order to match the demographic structure of the population as a whole. If the spread of people in the FRS sample exactly matched the spread in the population at a national level, then the grossing-up factor would simply be the total population size divided by the sample size. Since it does

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[1] An early six-month period of these data was analysed in two previous studies - see Lee and Saunders (1988) and Saunders and Webb (1988).

[2] The 1987/88 survey was undertaken very differently from those of later years and NOP does not have much information to supplement the data themselves. Indeed, some asset types currently available were not yet in existence (e.g. TESSAs and personal pension plans). Consequently, we present analysis of the 1987/88 data as evidence of some broad time-series trends and concentrate on using the 1991/92 data to describe the wealth distribution.

not, different grossing-up factors are needed for different types of people in the population. A higher-than-average grossing-up factor for a particular group indicates that the group is under-represented in the sample. The grossing factors hence give an indication of the demographic bias of the sample.

Table 2.1 shows the differential grossing-up factors calculated. We show figures for 1987/88 and for 1991/92, and for each year grossing factors are given with and without adjustment for the presence of a telephone. The FRS value survey is conducted by telephone; those without a telephone are therefore automatically excluded. Adjustment for the presence of telephones is simply done by computing the proportion of individuals in the FES in each group with access to a telephone. These proportions are used to weight the unadjusted grossing factors which are then rescaled to sum to the correct Census aggregate. The demographic characteristics of respondents are broadly similar in the two years, although the absolute level of the grossing factors is lower in 1987/88, reflecting the larger sample size discussed earlier. The most apparent pattern is the undersampling of the retired; this problem is worst for single females over age 60 - each observation in this group needs to be multiplied by over 14000 to aggregate to Census totals, whereas the average grossing factor is only 6634 in 1991/92.

Table 2.1
Grossing Factors: FRS to 1991 Census

Group	Age	1991/92		1987/88	
		(1)	(2)	(1)	(2)
Single male	20-35	6927	7440	5308	5765
Single female	20-35	6156	6968	4915	5468
Married male	20-35	5382	5355	2780	2997
Married female	20-35	4531	4494	2143	2238
Single male	35-65	8583	9812	7240	8803
Single female	35-60	5649	5923	3728	3933
Married male	35-65	6265	5904	3194	2955
Married female	35-60	5198	4870	2633	2439
Single male	65+	11805	13998	7181	9377
Single female	60+	14855	14660	7043	7252
Married male	65+	8773	8317	4278	4050
Married female	60+	10636	10078	4620	4320
All		6634	-	3625	-

Note: Column (1) presents grossing factors without adjustment for the presence of telephones; column (2) presents telephone-adjusted grossing factors.

In this section, we compare the 1991/92 FRS data set with FES data. The FES data used cover the last nine months of 1991. The sample size is 5306 households, but both FRS and FES data are displayed as proportions of the sample size to allow

comparability. These proportions, however, are not weighted to reflect the undersampling and oversampling of different groups in either the FRS or FES data. Table 2.2 shows the spread of income in each data set. The first FES income statistics are for household gross income, not including income in kind. The second FES statistics are for tax unit gross income. The difference between the two is that the tax unit includes only the 'nuclear' family - that is, the head of the household, spouse and children - whereas the household includes anyone living in the house. A grandmother living with her child's family forms a separate tax unit but is part of the same household.

Table 2.2
Percentage of Sample in Income Bands:
Household (FES), Tax Unit (FES) and 'Family' (FRS)

Income	FES household	FES tax unit	FRS 'family'
<£2500	0.68	5.73	2.83
£2501-£4500	7.50	13.00	8.14
£4501-£6500	8.89	10.77	8.64
£6501-£7500	3.14	4.42	4.40
£7501-£9500	6.22	8.11	5.27
£9501-£11500	5.71	7.15	7.57
£11501-£13500	5.96	6.55	7.78
£13501-£15500	6.22	6.16	7.57
£15501-£17500	6.01	5.20	7.48
£17501-£25000	19.26	15.45	19.86
£25001+	30.40	17.46	20.46
Total	100.00	100.00	100.00

The FRS asks about 'gross family income', which seems to allow a definition of the family that would include relatives living in the house even where they are technically separate tax units, but would exclude unrelated household members. The FRS data correspondingly lie in between the income ranges for the tax unit and those for the household. This is consistent with the definitional problem which may have led to grandparents being classed as family, while lodgers and fellow students, for example, are not. The income for FES tax units is lower than for the FRS family unit, but the income for FES households is higher than for the FRS.

Table 2.3 shows the tenure type of different households. In the FRS data, there is over-representation of mortgage holders relative to the FES, and there is under-representation of renting households and those that own their houses outright. The main reason for this is the under-representation of elderly people in the FRS, which

was shown above when discussing grossing-up. Very few retired households are still paying off mortgages (only 11.4 per cent of retired households in the FRS are mortgage holders).

Table 2.3
Tenure Type

Tenure type	Percentage of FES	Percentage of FRS
Mortgage	47.31	58.21
Owned outright	26.67	20.97
Rented, local authority	18.92	14.93
Rented privately	5.26	4.18
Other	1.88	1.71
Total	100.00	100.00

Table 2.4 shows the ages at which individuals left education. In the FRS data, there are fewer people who left education between 13 and 15. This again is due to the under-representation of elderly people.

Table 2.4
Age Left Education

Age left education	Percentage of FES	Percentage of FRS
13-14	26.17	11.25
15	22.66	20.17
16	24.57	31.57
17-18	12.70	18.26
19+	12.79	15.62

Table 2.5 again highlights the under-representation of retired people in the FRS sample, relative to the FES. The obvious corollary of this is that the FRS has a disproportionately large number of working individuals. The table also shows that there is undersampling of self-employed individuals.

The aim of comparing the FRS and FES data without correcting for known undersampling is to give an idea of the type of person who is in the FRS sample. There are several notable characteristics which all stem from the lack of retired individuals and couples: first, the high proportion of full- and part-time workers; second, the high proportion of mortgage holders; and third, the low number of households with income in the £2500-£6500 range. In the comparison of wealth

Table 2.5
Work Status

Work status	Percentage of FES	Percentage of FRS
Full-time	37.64	47.58
Part-time	10.33	14.67
Self-employed	7.37	3.53
Retired	21.24	12.13
Not working	23.42	22.08

holdings with aggregate statistics below, these characteristics are corrected for by giving extra weight to those who are undersampled, as described above when discussing grossing-up.

Table 2.6 presents information on the numbers holding particular assets in our data and compares these figures with aggregate holdings numbers from official statistics. As we have already mentioned, aggregate data are very sparse so our holdings comparisons have to be limited to assets that have special tax status. For these assets, we are able to use Inland Revenue information on personal asset holdings. We concentrate on 1991/92, for which we present aggregate statistics and grossed-up FRS data, but we also give figures from aggregate statistics and grossed-up FRS data in 1987/88 where possible.

The comparison of share holdings shows that for those holding shares in only a few companies, who represent the great bulk of individual shareholders, the FRS sample is fairly accurate. For those with more diversified equity portfolios, the FRS data do far less well, as we would expect. The overall figures for TESSA holdings match reasonably well with the aggregate holdings data, although the overall picture masks a divergence between holdings of building society TESSAs, which are well represented, and bank TESSAs, which are under-represented. Personal Equity Plan (PEP) holdings are under-represented but, like multiple share holdings, are concentrated towards the top of the wealth distribution. Holdings of personal pension plans (PPPs) by women are overstated in the FRS data. Our suspicion is that this reflects mislabelling of non-PPP contracts, such as additional voluntary contributions (AVCs); much of the over-representation reflects a large number of the over-50 age-group claiming to have PPPs.

In Table 2.7, we report comparisons of asset values, which are consistent with the holdings data in Table 2.6, and in particular with the fact that the FRS data miss the very wealthy. Once again, there is less information to use for the 1987 comparison, but we can at least use National Accounts data from the personal sector balance sheet for widely held assets which do not have special tax status, such as interest-bearing accounts (IBAs) and National Savings. Accurate data on the value of PEP holdings are not available in the FRS for 1987/88.

Table 2.6
Comparison with National Accounts and *Inland Revenue Statistics*: Asset Holdings by Number
(thousands)

Asset	Aggregate statistic, end 1987/88	FRS, 1987/88	FRS as a percentage of aggregate	Aggregate statistic, end 1991/92	FRS, 1991/92	FRS as a percentage of aggregate
Share ownership						
1 company	n/a	5246	-	5940	6041	101.7
2 companies	n/a	1215	-	2200	1683	76.5
3 companies	n/a	541	-	990	808	81.6
4+ companies	n/a	273	-	1870	512	27.4
Total	8600	7275	84.6	11000	9044	82.2
TESSAs						
Bank	n/a	n/a	-	906	375	41.4
Building society	n/a	n/a	-	1745	1482	84.9
Total	n/a	n/a	-	2651	1857	70.0
PEPs	300	264	88.0	2110	1239	58.7
PPPs (if working)						
Male	n/a	n/a	-	2461	2262	91.9
Female	n/a	n/a	-	1156	1332	115.2
Total	n/a	n/a	-	3617	3595	99.4

Notes: All FRS values grossed up using differential grossing factors accounting for telephone ownership.
Aggregate figures unavailable in 1987/88 for disaggregated share holdings, TESSAs and PPPs.
Sources: FRS, *Inland Revenue Statistics* and *Financial Statistics*.

A number of points are worth bearing in mind when making these comparisons. Firstly, as in most OECD countries, the National Accounts include unincorporated businesses in the personal sector balance sheet so we would never expect to capture all of 'aggregate' personal sector wealth in the form of shares, National Savings or IBAs from our survey alone. Secondly, the FRS data on bank account saving do not include balances in current accounts. More importantly, however, the undersampling of the extremely wealthy will have more implications for the levels of holdings of assets than for the number of holdings, since this group will presumably hold significantly more in each asset type rather than just many more types of asset (although wealthy portfolios will also be more diversified). It is

Table 2.7
Comparison of Asset Values
(£ million)

Asset	Aggregate statistic, end 1987/88	FRS, 1987/88	FRS as a percentage of aggregate	Aggregate statistic, end 1991/92	FRS, 1991/92	FRS as a percentage of aggregate
Wealth	389700	153549	39.4	400747	147733	36.9
Shares[a]	149120	23748	15.9	137200	30719	22.4
National Savings[a]	45813	15689	34.2	39000	19015	48.8
IBAs[a]	146670	91049	62.1	179084	75657	42.2
PEPs	578	-	-	6970	4404	63.2
Bank TESSAs[b]	n/a	n/a	-	2189	875	40.0
Build. soc. TESSAs[b]	n/a	n/a	-	4634	4118	88.9
Total TESSAs[b]	n/a	n/a	-	6823	4993	73.2
Other	47519	22505	47.4	31670	12945	40.9

[a] Aggregate figures include holdings by unincorporated businesses.
[b] Aggregate statistics are for mid-period.
Note: All FRS values grossed up using differential grossing factors accounting for telephone ownership.
Sources: FRS, *Inland Revenue Statistics* and *Financial Statistics*.

worth noting that the Inland Revenue wealth distribution statistics suggest that for the broad categories of wealth identified here, the least wealthy 87 per cent hold only 37 per cent of the total, while the least wealthy 96 per cent hold only 57 per cent of the total. It is no surprise that the FRS identifies only around 40 per cent of aggregate financial wealth, given the highly skewed nature of the wealth distribution and the voluntary nature of the survey. The results we report in this paper clearly provide little insight into the very wealthiest group of the population, but for the least wealthy 90 per cent, we believe the data we are using to be reasonably reliable.

Aggregating the value data

The main difficulty posed by the value data is that the reported values are not exact amounts; instead, they are given within value bands. This causes two problems: first, the distribution within each band is not known, and second, there is no upper

limit for the top band. In what follows, we have ignored the first problem by assigning a value to each asset equal to the midpoint of the corresponding value band. This would clearly be a reasonable simplification if the distribution within each band were close to uniform. If, however, the distribution across the whole value range were peaked, taking the midpoint for any band covering an area below (above) the peak underestimates (overestimates) the average value within that value band. Although it is unlikely that the distribution is uniform, assigning midpoints does serve as a first approximation.

The second problem remains because it is obviously not possible to assign a midpoint if the upper limit is not known. Again, we have had to make a first approximation by simply assigning the minimum of the value band for the upper band. Although this might in theory be a problem, Appendix A shows that the implications in this case are not too severe. In only two asset groups (premium bonds and 'other' shares) do we have more than four truncated observations. Different assets are coded with different band widths such that the number of truncated observations is low. Whilst this would still be a problem in an econometric model, for the purpose of this descriptive study we can reasonably say that medians will be unaffected and means may only move slightly according to the top-coding assumptions described above.

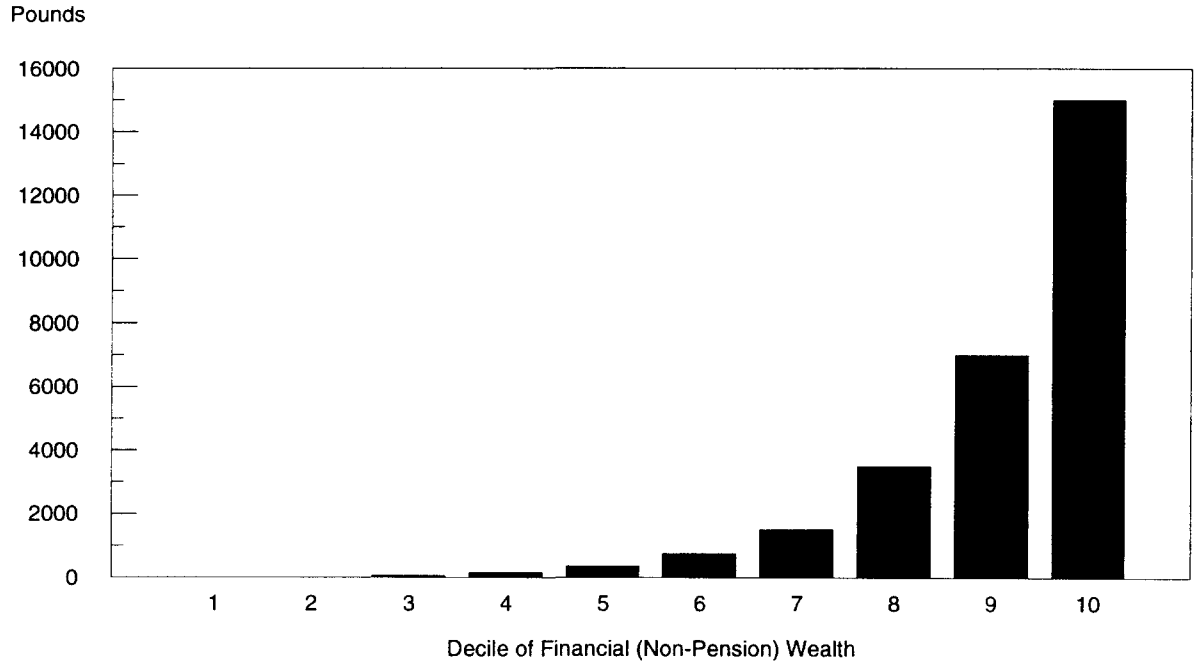
There is a further question about how to deal with answers of 'Refused' or 'Not known', and what it means if no answer is recorded at all. It seems reasonable to assume that no answer at all indicates that the respondent does not hold any savings in that asset. In the other two cases, however, there are two ways of dealing with the answer. The first is to assign a value of zero to that asset, while the second is to leave the value for that asset out of the data calculations. The advantage of the second method is that median values will not be distorted by having extra numbers of zeros included and hence details for individual asset holdings will be more accurate. The disadvantage is that aggregate values will be undercounted. This happens because, for any one respondent, a missing value on any asset means *total* wealth cannot be counted. In other words, aggregate values only include values for individuals who have neither refused nor answered 'Not known' to any question. The corollary of this is that the first method is less accurate for details on particular assets, but more accurate for aggregate statistics. In Section 3 below, we use the first method to give a better indication of total values.

3. The Distribution of Wealth

In this section, we move on to analyse the distribution of holdings of different assets, the relationship between this distribution and income, wealth and age, and finally the way in which portfolio structures vary across age-, income and wealth groups. To begin with, we concentrate on describing the most recent year of our data in detail and use an aggregate definition of financial wealth.[1] This includes all assets listed in Appendix A but does not take off the value of any debt or liabilities. This definition does not include estimates of either accrued pension wealth or net housing wealth. We turn to these later in this section.

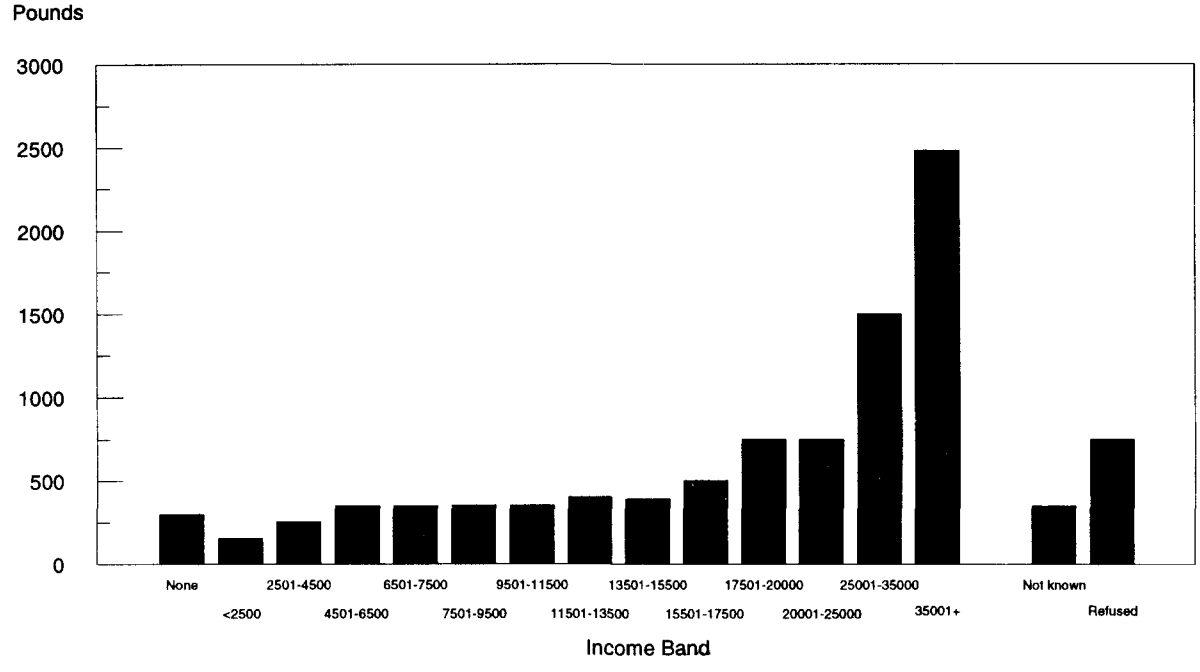
Figure 3.1 presents medians of this financial wealth variable by decile (i.e. the 5th to 95th percentile points). This demonstrates the concentration of financial wealth at the top of the distribution. Half the sample have less than £455 and the median of the fifth decile is £350. Median wealth in the top 10 per cent of the wealth distribution is over twice that of those households between the 80th and 90th percentiles.

Figure 3.1
Median Financial (Non-Pension) Wealth by Wealth Decile, 1991/92



[1] Throughout this section, we will refer to financial non-pension wealth as simply 'financial' wealth for brevity.

Figure 3.2
Median Financial (Non-Pension) Wealth by Income Band, 1991/92



One of the most important uses of the micro-data in this study is to analyse how this distribution varies conditional on household-level variables - particularly age and income. Firstly, we present the distribution by income band. Figure 3.2 graphs the median financial wealth by income band. We concentrate on medians because of the high degree of skewness in the positive wealth values and also the large numbers with zero wealth. (Not only is the mean over six times the size of the median, but the 90/10 ratio, for example, is not defined as the 10th percentile is zero.) The distribution is reasonably flat over most of its range. It is not until the £25001+ income bands (20.4 per cent of the sample) that the conditional median rises substantially. Table 3.1 describes other percentiles of the distribution of financial wealth by income. Overall, half the households in our survey have financial wealth of £455 or less. Over one-tenth have none. When split by income, all the conditional percentiles show the same broad pattern as that in Figure 3.2 - it is not until the top two income bands that they rise sharply. The distribution of wealth within each income group is also as skewed as that over all the survey. Two further points are worth noting regarding the banded income data. Firstly, it can be seen that observations are relatively evenly distributed across bands, with no band having worryingly small cell sizes apart from, perhaps, the £1-£2500 band. Secondly, it can be seen that the wealth of those households that did not (or could not) answer the income question is not out of line with that of the survey as a whole.

Table 3.1
Percentiles of Financial Wealth by Income Band, 1991/92

Income band	10%	25%	50%	75%	90%	Mean	*N*
None	0	50	300	1350	4200	1768	1058
<£2500	5	50	155	825	3575	1452	125
£2501-£4500	0	30	255	1500	7000	1969	359
£4501-£6500	0	50	350	2125	7500	2087	380
£6501-£7500	0	50	350	3500	7850	2834	195
£7501-£9500	0	50	355	3600	8000	3376	231
£9501-£11500	0	50	355	3000	8250	2966	335
£11501-£13500	0	50	403	3030	7755	2761	346
£13501-£15500	0	50	390	2350	7750	3212	334
£15501-£17500	0	50	500	2250	7500	2403	328
£17501-£20000	0	75	750	3500	9000	3346	402
£20001-£25000	0	80	750	3850	9030	4267	478
£25001-£35000	0	155	1500	5750	12575	4867	527
£35001+	50	600	2480	7750	13800	6215	373
Not known	0	50	350	1850	7530	2569	705
Refused	0	50	750	3500	8250	3639	446
All	0	50	455	3500	7905	3080	6622

Note: FRS values from sample (not grossed up) in 1991/92 prices.

Figure 3.3 and Table 3.2 present a similar analysis by age band. Not surprisingly, there is a striking pattern of asset holding by age. Median and mean financial wealth rise with age until retirement. However, given our discussion in Section 1, we would caution that the observed low levels of asset holding for retired households in 1991/92 might just as much be due to the currently retired generation being worse off as a whole, rather than due to older households spending down their assets in retirement. The fact that most retired households have more than the median level of wealth means that, given the under-representation of the elderly described in Section 2, our survey median of £455 might be slightly low as an estimate of the population median.

Figure 3.3
Median Financial (Non-Pension) Wealth by Age Band, 1991/92

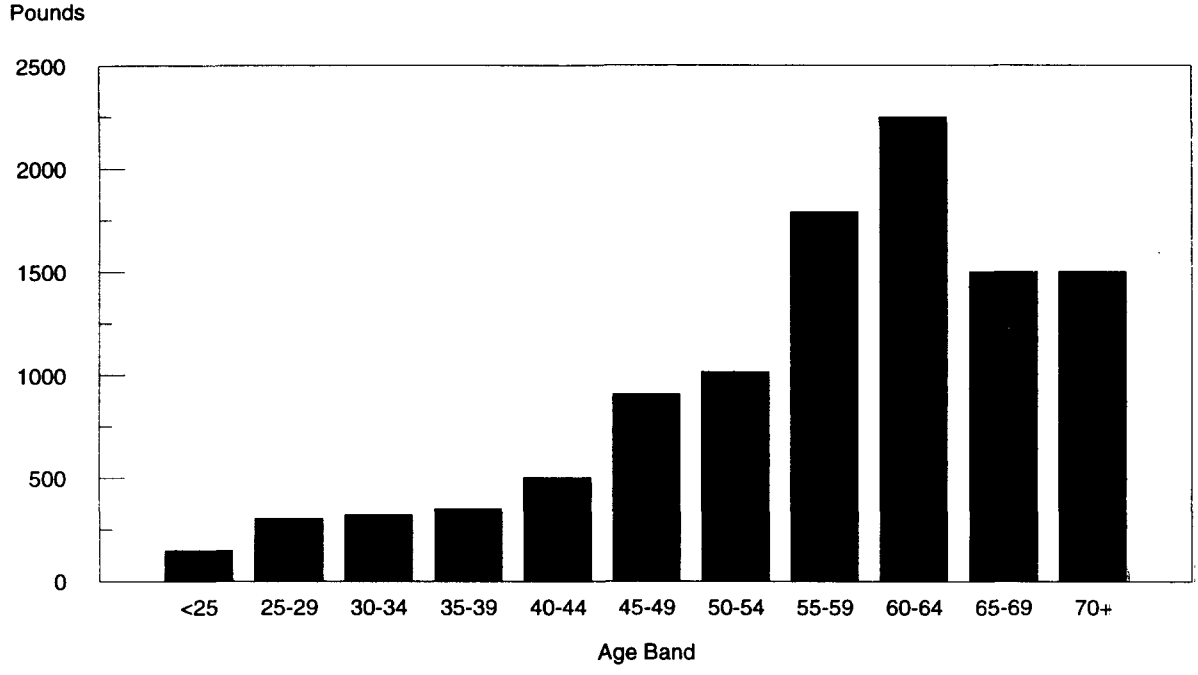


Table 3.2
Percentiles of Financial Wealth by Age Band, 1991/92

Age band	10%	25%	50%	75%	90%	Mean	*N*
<25	0	50	150	750	1850	864	954
25-29	0	50	303	1500	3850	1432	734
30-34	0	50	320	1500	5000	1813	826
35-39	0	50	350	2250	7500	2250	776
40-44	0	50	500	2943	7650	2608	772
45-49	0	75	905	3750	10000	3726	621
50-54	0	50	1015	4488	11000	4668	436
55-59	5	350	1790	7663	15750	6098	388
60-64	5	350	2250	7530	16000	6005	363
65-69	30	255	1500	7500	15400	5465	342
70+	5	155	1500	7500	15550	6098	410
All	0	50	455	3500	7905	3080	6622

Figure 3.4
Median Financial (Non-Pension) Wealth by Income and Age Band, 1991/92

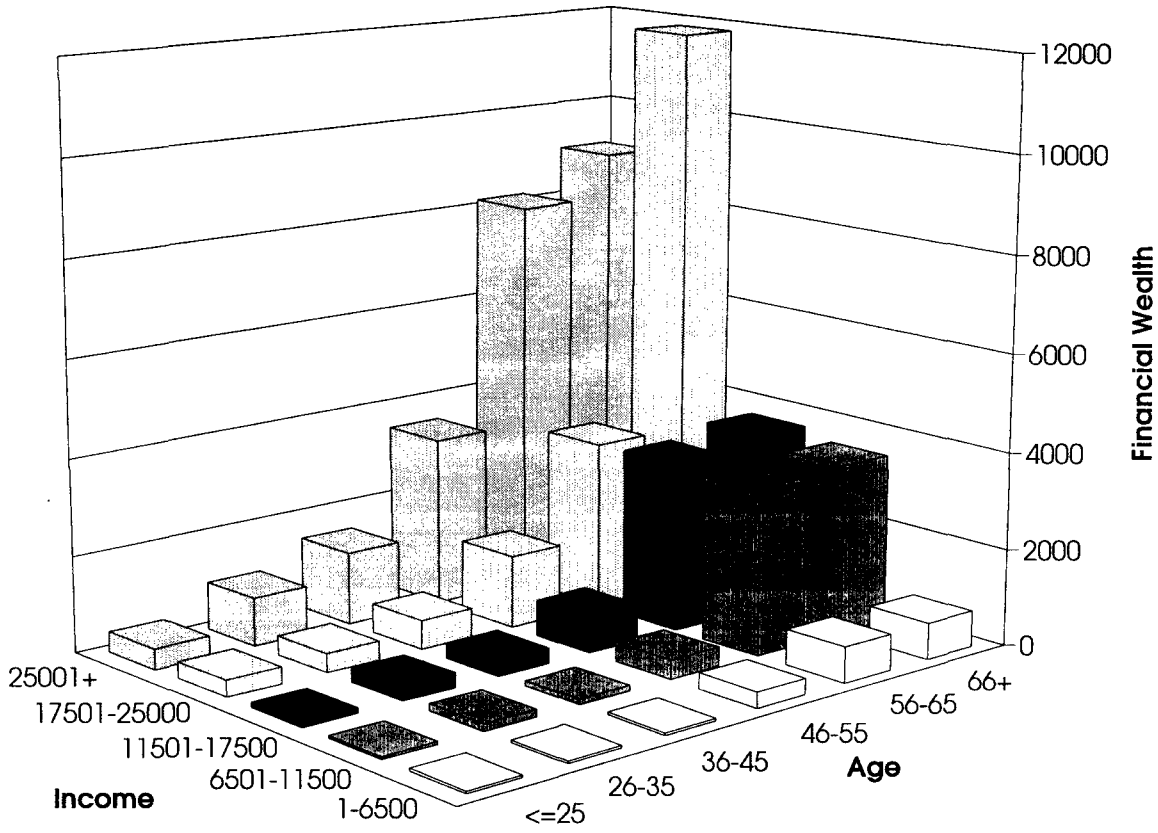


Table 3.3
Median Financial Wealth by Income and Age Band, 1991/92

Age band	Income band						
	£1-£6500	£6501-£11500	£11501-£17500	£17501-£25000	£25001+	Not known /Refused	None
<25	50	55	100	350	428	53	150
25-34	50	150	300	400	1000	185	350
35-44	50	110	325	605	1500	355	450
45-54	330	403	753	1500	3505	683	200
55-64	750	3390	3503	3463	8150	1500	1500
65+	750	3530	3713	11850	9053	750	1500

Using the household-level data on wealth holdings, we can split our sample by age and income simultaneously to analyse the joint distribution of income, age and financial wealth. In Figure 3.4, we allocate each household in the FRS sample into one of six age bands and one of five income bands.[1] We can then compute median financial wealth in each of the 30 cells and this forms the vertical axis in the three-dimensional figure - the numbers for which are in Table 3.3. Interesting patterns emerge. Wealth rises by age at each income level and by income within each age band. Therefore there is a large concentration amongst high-income older households as predicted by economic intuition and economic theory. It is worth noting that the distinction between income and wealth is blurred for retired households since the presence of very high income for non-working households reveals a prior choice to annuitise past holdings of wealth stocks. This may well explain the fact that the highest-income retired households have slightly less stocks of (unannuitised) wealth than those in the income band below them.

In Table 3.4, we break this analysis down by asset group. Since the incidence of holdings is very low for all asset groups except two, tabulation of percentiles such as the median or quartiles is uninformative. Therefore we simply report the proportion of our sample we observe holding the asset and the mean value held for those with positive holdings by each conditioning variable. In addition to splitting by income and age, we also disaggregate this analysis by band of total financial wealth. Assets are aggregated as follows. The two most commonly held asset groups are interest-bearing accounts (all interest-bearing bank and building society accounts (non-TESSAs) and savings clubs) and National Savings. We consider TESSAs and PEPs as separate items in the portfolio since the take-up of these recently introduced tax-privileged assets is interesting in itself. We split remaining wealth into two groups - equities and 'other'. The 'other' category comprises primarily unit trusts, investment trusts and government securities.

There are many trends apparent in these distributions of asset holdings. This is particularly the case with PEPs, shares and 'other' assets, holdings of which are only prevalent amongst high-income, high-wealth households. Average balances for those households holding these assets also increase markedly with income and wealth, as we might expect. In fact, the trends are significantly stronger by wealth level than by income. This reflects the fact that many high-income households may still be quite young (a more appropriate measure of 'lifetime' living standards might be total expenditure about which we have no information from our data) and therefore have not accumulated large stocks of assets despite saving significantly. Detailed percentiles and summary statistics of all these asset groups for 1991/92, from which this table is drawn, are presented in Appendix B.

[1] When computing joint distributions, the cell size can collapse to quite small numbers relatively quickly - hence we have to use broader income and age bands than those in the univariate distributions used elsewhere in the paper.

Table 3.4
Percentage of Non-Zero Asset Holdings and Mean of Non-Zero Asset Holdings by Income, Wealth and Age, FRS 1991/92

		TESSAs		*Interest Accounts*		*PEPs*		*Shares*		*National Savings*		*Other*	
	N	Percent>0	Mean (>0)	Percent>0	Mean (>0)	Percent>0	Mean (>0)	Percent>0	Mean (>0)	Percent>0	Mean (>0)	Percent>0	Mean (>0)
By income band													
£1-£2500	125	0.80	3500	76.00	965	0.80	3500	4.80	3833	30.40	1374	0.80	7500
£2501-£4500	359	1.67	1150	67.69	1595	0.00	-	7.52	1009	42.06	1660	1.11	8562
£4501-£6500	380	3.16	3341	71.05	1871	1.05	2500	10.53	1593	36.58	1090	2.11	2812
£6501-£7500	195	2.56	2700	71.28	2443	0.51	7500	13.33	3038	34.36	1385	2.56	4050
£7501-£9500	231	3.46	3462	75.76	2404	2.16	3750	15.15	3278	33.33	1195	5.63	8134
£9501-£11500	335	3.28	4772	75.52	2410	1.19	7375	16.42	2463	29.85	1498	2.39	2062
£11501-£13500	346	4.91	2458	76.59	1950	1.16	4000	15.61	2171	29.48	1446	4.91	6808
£13501-£15500	334	5.39	1875	74.55	2304	2.69	3944	17.96	3762	31.74	354	4.79	10406
£15501-£17500	328	4.57	2413	78.96	1740	1.83	3375	17.07	2754	29.88	362	4.27	6500
£17501-£25000	880	3.86	2591	80.23	2295	2.27	4312	21.36	4918	32.95	996	5.34	8005
£25001+	900	7.22	2953	78.78	3187	5.44	4770	29.22	5589	38.22	801	8.00	6281
By wealth band													
£1-£49	457	0.00	0	42.89	12	0.00	0	0.00	0	61.71	16	0.00	0
£50-£100	884	0.68	50	91.29	55	0.00	0	0.00	0	21.04	38	0.00	0
£101-£305	596	0.84	110	81.21	143	0.00	0	17.11	250	36.24	70	0.34	250
£306-£575	647	0.93	350	90.42	343	0.31	250	8.35	296	32.30	138	0.15	250
£576-£1000	650	1.54	640	91.38	664	0.62	625	15.85	471	31.69	211	2.00	654
£1001-£1850	661	3.63	873	90.92	1222	0.76	1100	21.33	766	36.01	342	3.33	1091
£1851-£3850	627	6.06	2159	91.39	2645	2.39	2150	23.44	1226	34.61	599	5.58	2029
£3851-£8250	632	10.13	2909	94.78	5027	4.59	3379	30.22	2000	43.67	810	8.07	2877
£8251-£15000	313	14.06	3770	95.53	7358	6.39	3550	48.24	2738	48.88	1779	9.90	3750
£15001+	332	15.06	4702	87.95	8911	17.77	7352	61.45	15212	62.95	6802	32.53	13023
By age band													
21-29	1866	1.50	1600	77.22	1001	0.91	4220	9.59	1818	22.24	440	2.20	2798
30-34	648	2.62	2702	74.54	1421	1.23	4687	12.65	3411	27.31	273	3.55	4032
35-39	776	2.84	1956	76.03	1845	1.29	7600	16.62	2563	31.31	645	2.06	3125
40-44	772	4.40	2377	72.67	2087	1.81	3160	17.88	3494	33.94	279	3.76	5594
45-49	621	5.31	3071	77.78	2591	2.90	3375	20.45	4899	38.81	430	4.51	6223
50-54	436	5.96	3194	72.48	3163	4.59	6987	22.02	4562	36.01	868	6.42	8508
55-59	388	8.51	4224	77.06	3539	5.41	4678	25.00	5453	40.21	1291	8.51	10287
60-64	363	7.16	2446	80.17	3754	3.31	4729	23.14	4592	46.28	2158	6.06	9943
65-69	342	3.51	2875	79.24	3592	1.75	3166	23.68	3154	47.66	2452	7.02	7781
70+	410	3.90	3934	71.95	3425	1.95	4937	19.51	7853	51.22	2677	4.63	10342
All	6622	3.73	2831	75.96	2142	2.02	4802	16.51	3913	33.10	1016	3.97	6744

The probability of holding a TESSA increases with income, albeit weakly, and even in the highest income band only 7 per cent of individuals hold TESSAs. There is little discernible relationship between the mean of non-zero holdings and income. The probability of holding a TESSA is quite strongly related to aggregate financial wealth, as is the mean value of non-zero holdings. The probability of holding a TESSA by age peaks in the years running up to retirement age. In this case, once again, we should stress that on the basis of this cross-sectional data, we cannot say anything about life-cycle behaviour. While it is tempting to deduce (from the fall in the frequency of TESSA holding in the 65+ age-group) that TESSAs are less attractive to the retired than to the pre-retired, this pattern in the data could simply reflect a cohort effect.

Interest-bearing accounts are fairly evenly distributed by income, with only a slight tendency for mean holdings to increase with income. Those in the lowest band of wealth have a far lower probability of holding an IBA, while mean holdings do rise quite rapidly with aggregate wealth. Holding of IBAs is fairly smooth by age, with mean holdings rising slowly.

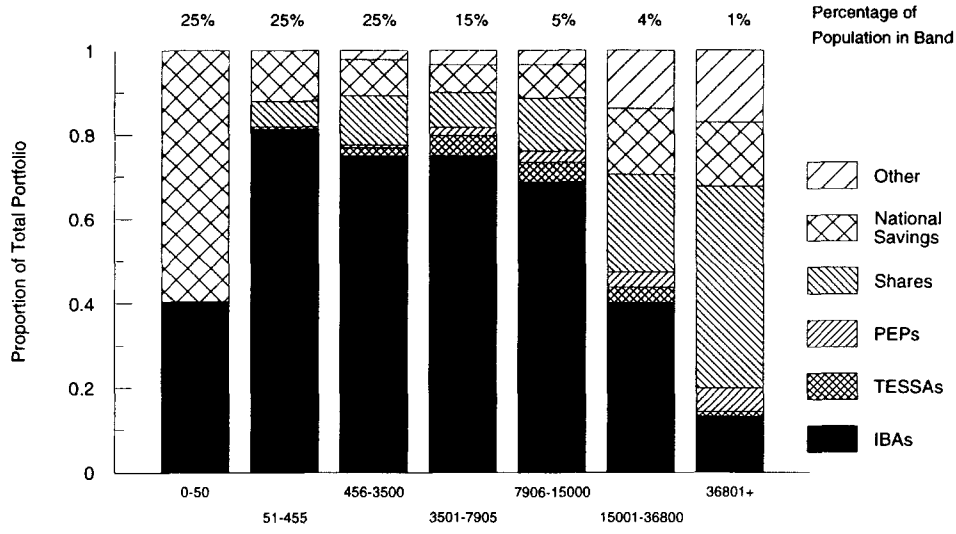
PEP holding is concentrated in higher income and wealth bands, particularly higher wealth bands. The mean value rises with aggregate wealth, possibly suggesting that those with greater wealth first invested in PEPs sooner after their introduction in 1987. PEP holding by age peaks, as with TESSAs, before retirement. The direct holding of shares is still much more common in 1991/92 than the holding of PEPs, but follows a broadly similar pattern, with concentration of holding at higher income and especially higher wealth levels. The mean level of holding increases particularly quickly with wealth.

National Savings products are widely held, with some tendency for increased frequency of holding and mean non-zero holding at higher wealth levels. There is also a clear tendency for frequency and mean level of holding to increase with age. This may be because National Savings type products appeal to older individuals, or it may be a simple generational effect that will become less prevalent as new households or individuals retire.

Before moving on to consider housing and pension wealth, we briefly describe the structure of portfolios by wealth level. This analysis is pursued further when we compare the 1987/88 and 1991/92 distributions below. Figure 3.5 presents mean portfolios for different bands of the wealth distribution. This figure demonstrates the striking differences in diversity of portfolios across the population. The portfolios of households in the bottom half of the wealth distribution are heavily concentrated in IBAs and National Savings, as Table 3.4 might suggest.

Table 3.5 presents portfolios for cumulative percentiles of the wealth distribution. This differs from Figure 3.5 in that we include the top 5 per cent, say, in the average portfolios for the top 10 per cent rather than considering the percentile groups exclusively. The average portfolio for the whole sample is heavily concentrated in interest-bearing accounts and National Savings. Other forms of saving account

Figure 3.5
Mean Portfolios by Wealth Band, 1991/92



for only 15 per cent of wealth on average. These numbers are very different for the top 10 per cent, and particularly for the top 5 per cent, of the population ranked by wealth. It is worth noting that IBAs are the most heavily taxed of all forms of wealth. On the other hand, it is the tax treatment of assets held by high-wealth individuals that most approximates an expenditure tax.[1]

Table 3.5
Mean Portfolios by Cumulative Percentiles of Financial Wealth, 1991/92

Asset type	Financial wealth						
	>= 36800 (1%)	>=15000 (5%)	>=7905 (10%)	>=3500 (25%)	>=455 (50%)	>=50 (75%)	>=0 (100%)
TESSAs	0.010	0.030	0.038	0.044	0.032	0.022	0.020
IBAs	0.132	0.348	0.517	0.659	0.704	0.745	0.718
PEPs	0.055	0.039	0.033	0.025	0.016	0.009	0.009
Shares	0.478	0.282	0.204	0.130	0.123	0.099	0.091
N. Savings	0.152	0.156	0.117	0.085	0.085	0.098	0.137
Other	0.171	0.143	0.089	0.056	0.039	0.025	0.022

[1] See Banks and Blundell (1994a).

Housing wealth

To get an idea of how the levels of wealth described above compare with some notion of total wealth that includes saving in the form of housing and pensions, we have to impute some information for our sample. In this section, we add a reasonably *ad hoc* approximation to housing wealth onto total financial wealth for our sample to assess how the distributions might change. We impute net housing wealth from the information in our data set as described in Appendix C. As the FRS is a survey of financial products rather than financial or physical wealth, we know information on mortgage values for mortgage holders but do not know house values for owner-occupiers. For this group, we impute housing wealth from the 1991 British Household Panel Study conditional on household income band. The procedure for mortgage holders is, briefly, to uprate the purchase value of the individual's house (which we know from our data set) and then to subtract an estimate of the outstanding mortgage. To describe housing wealth patterns adequately would require at least a complete paper but we believe this procedure provides a reasonable approximation with which to compare orders of magnitude. Once again, the first figure we present (Figure 3.6) is simply the distribution of wealth including housing by decile of wealth (including housing). This corresponds to Figure 3.1 above and demonstrates both the significantly increased orders of magnitude generated by the inclusion of net housing wealth and the equalising effect housing wealth has on the overall distribution.

Figure 3.6
Median Total (Non-Pension) Wealth by Wealth Decile, 1991/92

Figure 3.7
Median (Non-Pension) Wealth by Income Band, 1991/92

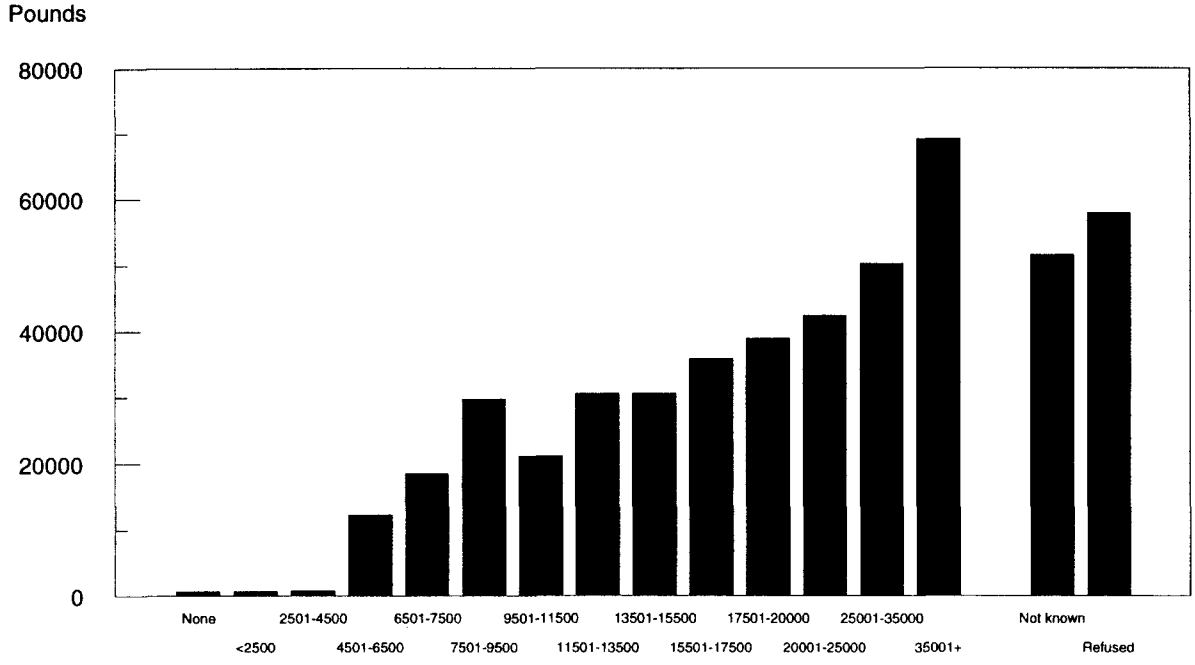


Table 3.6
Percentiles of Wealth by Income Band, 1991/92

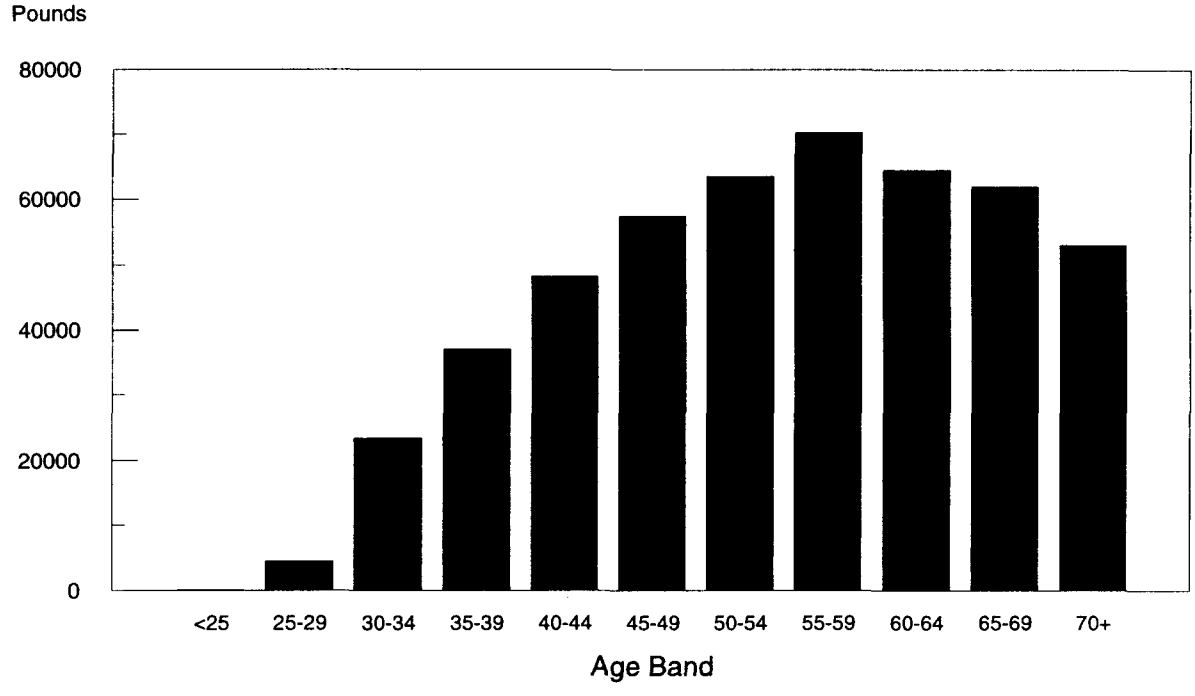
Income band	10%	25%	50%	75%	90%	Mean	*N*
None	5	50	750	16121	51300	15088	1058
<£2500	5	50	750	44419	73347	20304	125
£2501-£4500	5	50	821	48066	55216	19729	359
£4501-£6500	5	153	12182	60697	67200	28086	380
£6501-£7500	30	200	18476	62943	70043	33476	195
£7501-£9500	50	350	29761	70402	77452	39071	231
£9501-£11500	50	1433	21121	70073	80998	35503	335
£11501-£13500	50	1542	30529	76432	95083	40512	346
£13501-£15500	75	1586	30539	62163	80093	36036	334
£15501-£17500	75	5043	35767	68813	93482	44019	328
£17501-£20000	180	10628	38843	72013	89750	48511	402
£20001-£25000	750	13110	42349	76523	102709	54733	478
£25001-£35000	3500	21261	50126	81078	113708	64429	527
£35001+	5798	27150	69124	104793	135222	74631	373
Not known	55	4250	51524	70894	85094	53906	705
Refused	150	9189	57800	73594	100094	56719	446
All	50	750	29664	67852	89365	41521	6622

Figure 3.7 and Table 3.6 present the distribution of wealth by income, where we have included our estimate of net housing wealth in total wealth for owner-occupiers.

What is immediately clear is that, whilst the broad patterns are the same - wealth rises with income and the 25th percentile is still very low - these numbers are significantly larger than those presented in Table 3.1. This reflects very large capital gains made on housing in the 1980s and the erosion of real mortgage debt by rapid general price and earnings inflation in the 1970s and 1980s.

Great care must be taken in interpreting figures that relate to housing wealth. While housing was widely seen in the 1970s and 1980s as an investment good, it is also a consumption good, and indeed a consumption good which is an absolute necessity. If rents are closely linked to house prices, the extent to which an increase in house prices increases the lifetime consumption possibilities for a home-owner is quite limited. It is mainly to the extent that individuals can trade down or bequeath their houses that increasing house prices genuinely increase wealth.

Figure 3.8
Median (Non-Pension) Wealth by Age Band, 1991/92



Patterns of wealth including housing by age are equally striking. These are presented in Figure 3.8 and Table 3.7. There is a uniform and steep rise in net wealth by age until the age of 59. Once again, wealth levels turn down for older households, and again this might be as much a generational wealth (or taste) effect as retired households trading down or withdrawing housing equity as they age.

Table 3.7
Percentiles of Wealth by Age Band, 1991/92

Age band	10%	25%	50%	75%	90%	Mean	*N*
<25	0	50	150	800	3600	2759	954
25-29	5	200	4535	23504	49608	15371	734
30-34	50	1500	23330	44863	66481	28319	826
35-39	55	8268	37096	64614	89083	43042	776
40-44	155	18848	48236	71848	101273	55025	772
45-49	285	24047	57408	80508	119088	68070	621
50-54	750	27101	63534	83776	123336	68126	436
55-59	1500	28654	70259	87337	110743	77663	388
60-64	300	9000	64443	78124	97622	62320	363
65-69	250	11005	61972	73594	92583	53295	342
70+	55	1500	53012	71960	89207	45873	410
All	50	750	29664	67852	89365	41521	6622

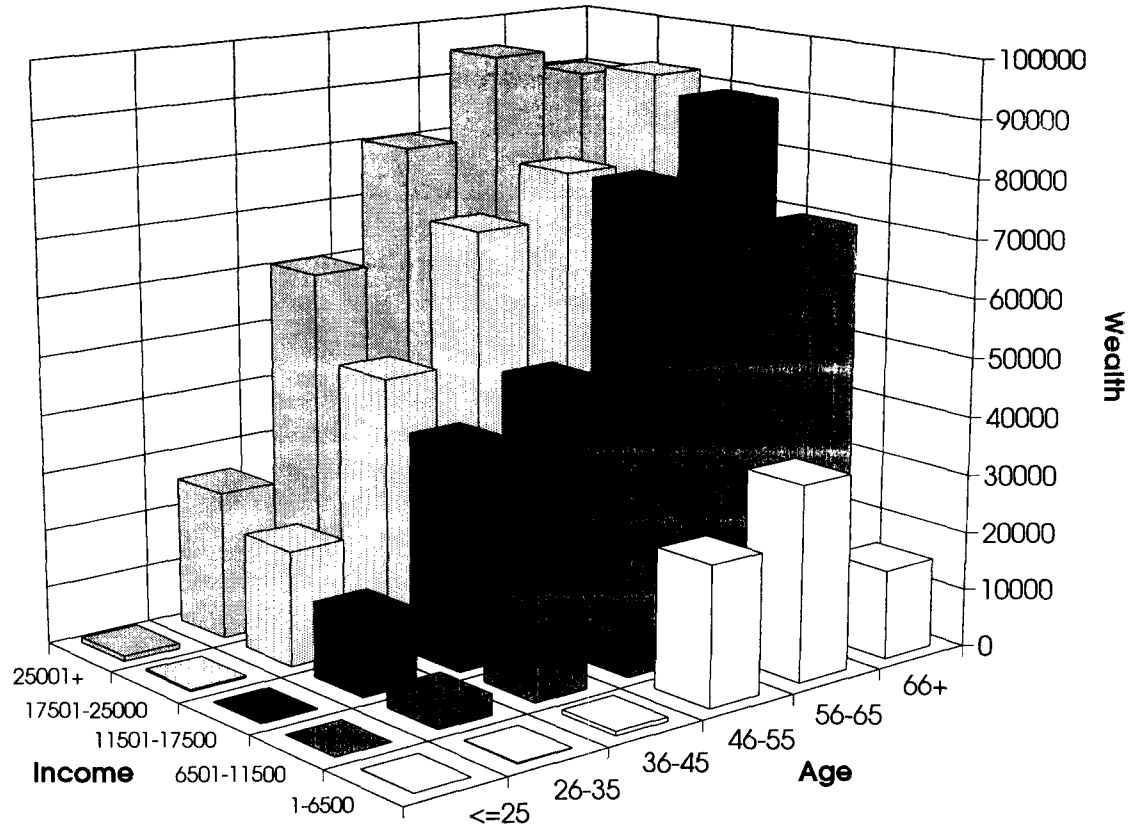
This turn-down in wealth including housing is not observed when we split the population by income and age together (which in some sense conditions on wealth for the retired since any post-retirement income must come from past saving).

Figure 3.9 and Table 3.8 present medians of total wealth including housing by income and age. Although the concentration of wealth amongst high-income, high-age households is still apparent, the distribution now rises more uniformly with both income and age as households that own their own homes (about three-quarters of our 1991 sample) begin to pay off their mortgage debts and accumulate capital gains on their houses. Again, the only non-uniformity in the wealth-income relationship is for the very high-income retired households which will have already annuitised some of their wealth.

Table 3.8
Median Wealth by Income and Age Band, 1991/92

Age band	Income band						
	£1-£6500	£6501-£11500	£11501-£17500	£17501-£25000	£25001+	Not known /Refused	None
<25	53	55	118	365	859	53	185
25-34	150	3596	13032	19943	25644	13008	4050
35-44	700	17244	38379	46192	60739	53287	49800
45-54	23944	45913	45798	68797	80536	61275	49825
55-64	33662	69452	76792	76643	94908	70819	50550
65+	15237	69743	89121	92110	90231	70379	50550

Figure 3.9
Median Total (Non-Pension) Wealth by Income and Age Band, 1991/92



However, bearing in mind the problems of comparing housing wealth across generations, to fully describe housing wealth by age we would ideally like to know the housing wealth 10 and/or 20 years ago of those individuals currently aged 65-70. This would enable comparison with individuals currently 45-50 or 55-60 years old.

Pension wealth

The FRS data we have used in earlier sections of this paper do not provide enough information to attempt individual-level estimates of pension status, for which a great deal of detailed information is necessary.[1] Pensions are often treated as

[1] See Dilnot, Disney, Johnson and Whitehouse (1994, Ch. 4).

wealth, and quite reasonably, since they confer the ability to consume, in retirement, without earning. If future pension entitlements and longevity are known, a flow of pension income can be translated into a measure of wealth. Unfortunately, future pension entitlements are rarely known with any certainty, since future job tenure, earnings growth, capital market performance, inflation and changes in government policy can all have an effect. We cannot therefore make any estimates of individual pension wealth comparable with our estimates of financial wealth. The Inland Revenue, however, does estimate the value of both occupational and state pension rights (see Inland Revenue (1994) for details). The Inland Revenue estimates for 1991 are of occupational pension wealth of £605 billion and state pension wealth of £698 billion. Each of these is thus of a similar size to estimated housing wealth. It is important to note that the assumptions necessary to arrive at such figures, in particular future uprating of state pensions, make them necessarily subject to a wide margin of error.

To give some idea of the distribution of this pension wealth, we present in Table 3.9 the Inland Revenue estimates of the distribution of marketable, occupational pension and state pension wealth. We would expect the state pension, which is a basically flat-rate benefit, to have a significant equalising effect, but occupational pensions also reduce wealth inequality, being received or expected by some 50 per cent of the population.

Table 3.9 demonstrates that pension wealth has a significant equalising effect on the overall distribution of wealth.

Table 3.9
The Impact of Pensions on the Distribution of Wealth, 1991

Percentage of wealth owned by:		Marketable	Marketable + occupational	Marketable + occupational + state
Most wealthy	1 per cent	18	14	11
	2 per cent	25	19	15
	5 per cent	37	30	25
	10 per cent	50	43	36
	25 per cent	71	66	58
	50 per cent	92	88	82

Source: Inland Revenue, 1994.

Changes since 1987

To illustrate the changes in the level and composition of wealth between 1987/88 and 1991/92, we first present two breakdowns comparable with those in Figure 3.1 and Table 3.3 above. We then describe the distribution of holdings within each asset type, and the portfolio structure of the population by age, income and wealth,

for each data set. The former description gives an indication of changes in levels, the latter gives changes in composition. These distributions are comparable with Figure 3.5 and Table 3.5 above.

Figure 3.10
Median Financial (Non-Pension) Wealth by Wealth Decile, 1987/88

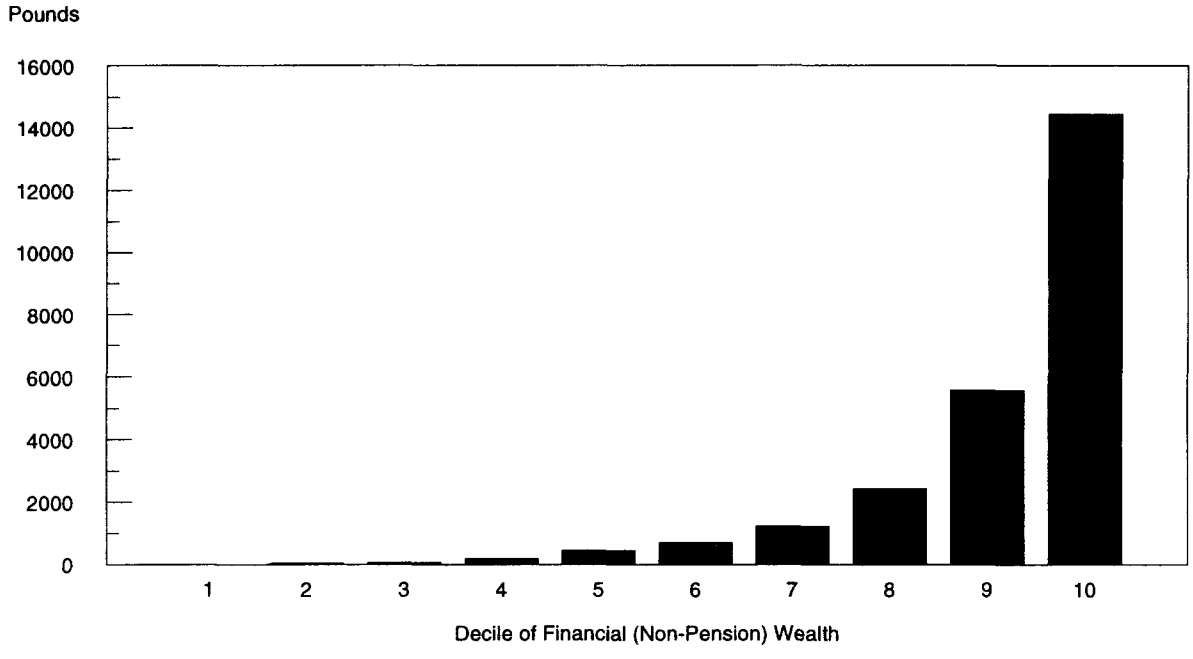


Figure 3.10 presents median (non-housing) wealth by wealth decile for the 1987/88 FRS data. This data set does not permit the imputation of housing wealth since the survey did not ask questions regarding the purchase price of owner-occupied accommodation. Therefore we can only compare non-housing distributions. Indeed, the shape of the distribution of wealth looks very similar across the two years, although there is some evidence that the wealth of the top three deciles increased. Table 3.10 presents median financial wealth by income and age band for the 1987/88 data. In keeping with the hypothesis that households used up precautionary balances of liquid assets (particularly interest-bearing assets) over the four-year period, these values are higher for most groups than those observed in the 1991/92 sample (see below for more evidence of this). The few groups that have increased their financial wealth are found in age ranges in which we would expect far fewer households to have large outstanding mortgages (for example, 56- to 65-year-olds earning over £25000 per year). This is not surprising, as we would expect to see net creditors gain over a period of high interest rates.

Table 3.10
Median Financial Wealth by Income and Age Band, 1987/88

Age band	Income band						
	£1-£6500	£6501-£11500	£11501-£17500	£17501-£25000	£25001+	Not known /Refused	None
<=25	72	164	295	263	144	131	197
26-35	72	203	459	952	1969	203	459
36-45	72	295	847	1227	1969	299	466
46-55	105	463	985	1969	2038	459	985
56-65	985	1969	3945	4962	3708	1083	1969
66+	985	4923	10475	20648	13619	1181	1582

Table 3.11
Financial Wealth: Descriptive Statistics by Group

Asset group	25%	50%	75%	Mean	%>0	%<0
1987/88						
IBAs	65	393	1969	1966	83.6	-
National Savings	0	0	39	315	39.4	-
Shares	0	0	0	497	12.8	-
TESSAs	-	-	-	-	-	-
PEPs	0	0	0	-	1.7	-
Others	0	0	0	458	4.3	-
All wealth	72	466	2428	3266	92.6	-
All debt	0	39	525	803	-	61.7
Net wealth	-98	203	2015	2463	68.4	28.4
1991/92						
IBAs	5	300	1500	1627	76.0	-
National Savings	0	0	5	336	33.1	-
Shares	0	0	0	646	16.5	-
TESSAs	0	0	0	106	3.7	-
PEPs	0	0	0	97	2.0	-
Others	0	0	0	268	4.0	-
All wealth	50	455	3500	3080	87.6	-
All debt	0	75	750	965	-	64.6
Net wealth	-225	180	2250	2115	64.6	31.5

Note: Figures for 1987/88 uprated to 1991/92 prices.

Table 3.11 illustrates the distribution of holdings within each asset type for the individuals in our data set in both 1991/92 and 1987/88. All individuals are ranked in ascending order of size of the particular asset holding and the values at the 25th percentile, the 50th percentile and the 75th percentile given, along with the mean. The most commonly held asset type is a bank or building society account, held by 75 per cent of the sample. Of the other assets, only National Savings are held by more than 25 per cent of individuals. If all financial wealth is aggregated, we still find that gross financial wealth at the 25th percentile is very low, at £50, although rising reasonably rapidly. Net financial wealth is negative at the 25th percentile. These numbers tell the same story as Tables 3.1 to 3.4. In this table, however, we also present figures for 1987/88, uprated to 1991/92 prices. We also present some brief evidence on levels of debt (defined simply as the sum of all the liabilities in Appendix A, i.e. not including mortgage debt).

The most striking change between 1987/88 and 1991/92 is the fall in both the proportion of individuals with interest-bearing accounts and the mean and median levels of IBA holding. Our suspicion is that this principally reflects the use of IBA balances to meet increased commitments as mortgage interest rates rose dramatically in the late 1980s. There is also likely to have been switching out of IBA holdings into TESSAs when these became available in January 1991.[1] The growth in coverage of PEPs and of other shareholdings continued through this period, and in the case of PEPs, beyond it.

The decline in mean financial wealth, again probably reflecting the running-down of precautionary saving by those with large mortgages, alongside a rather smaller decline in median wealth, suggests that wealth inequality might have fallen during the period. We should stress that these figures are sensitive to the problems caused by using midpoints of asset bands, and in the case of 1987/88 then uprating to 1991/92 prices.

Tables 3.12, 3.13 and 3.14 show how the portfolio structure of the population by age, income and wealth has changed. In these tables, we have changed the structure of the bands where possible to facilitate comparison between the different years' data. In 1987/88, TESSAs were not available and PEPs were still very new so we cannot include them in the earlier portfolios. This obviously creates a problem in comparing the two data sets because the range of portfolio choice is wider in 1991/92 than in 1987/88. However, it is possible to see some broad patterns. It is also possible to see how the introduction of PEPs and TESSAs affected portfolio composition.

By age, portfolio structure seems relatively stable: the share of wealth accounted for by IBAs falls slowly with age, that in National Savings products tends to rise. This may partly reflect older people's lack of wealth, but may also reflect a need for greater liquidity. National Savings seem particularly popular with the very old,

[1] See Banks, Blundell and Dilnot (1994).

Table 3.12
Mean Portfolios by Age-Group

Asset type	Age-group										
	<30	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	All
1987/88											
IBAs	0.831	0.792	0.778	0.747	0.728	0.732	0.725	0.714	0.681	0.671	0.761
Shares	0.039	0.063	0.073	0.074	0.080	0.083	0.072	0.066	0.066	0.046	0.062
N. Savings	0.110	0.119	0.123	0.136	0.151	0.134	0.161	0.185	0.219	0.256	0.146
Other	0.010	0.019	0.019	0.033	0.032	0.041	0.035	0.030	0.029	0.022	0.023
1991/92											
IBAs	0.789	0.769	0.754	0.705	0.680	0.660	0.632	0.665	0.655	0.599	0.718
Shares	0.063	0.081	0.102	0.104	0.122	0.110	0.110	0.093	0.096	0.100	0.091
N. Savings	0.118	0.108	0.105	0.131	0.130	0.134	0.142	0.167	0.186	0.269	0.137
Other	0.014	0.022	0.016	0.025	0.025	0.035	0.049	0.030	0.038	0.015	0.023
PEPs	0.006	0.007	0.005	0.009	0.013	0.023	0.022	0.008	0.006	0.004	0.009
TESSAs	0.010	0.013	0.018	0.026	0.031	0.030	0.044	0.038	0.018	0.013	0.021

due primarily to 'Granny' bonds. The proportion of wealth accounted for by shares is relatively low for both the very young and the very old. This may also reflect a need for greater liquidity at those points in the life cycle.

By income, we see the proportion of wealth held in National Savings falling and that held in shares rising. High-income individuals have less need for liquid wealth and hence are more willing to hold their wealth in illiquid assets, namely shares and PEPs. The falling proportion of National Savings with income is partly due to the low income of pensioners. The portfolio share of IBAs is relatively stable until the highest income bands, at which point it falls quite sharply, again reflecting a lesser need for liquidity. Changes across time are dwarfed here by the significant changes that occur in portfolio structure as income rises. Given that income bands in 1987/88 are not uprated to account for inflation, it is hard to abstract true time effects from effects due to income changes.

Table 3.13
Mean Portfolios by Income Group

Asset type	Income band								
	None	Not known/ Refused	£1 -4500	£4501 -7500	£7501 -11500	£11501 -15500	£15501 -25000	£25001 +	All
1987/88									
IBAs	0.781	0.766	0.700	0.769	0.787	0.777	0.742	0.703	0.761
Shares	0.053	0.050	0.032	0.044	0.058	0.074	0.100	0.137	0.062
N. Savings	0.139	0.157	0.250	0.163	0.125	0.114	0.107	0.098	0.146
Other	0.019	0.020	0.009	0.016	0.022	0.029	0.042	0.050	0.023
1991/92									
IBAs	0.773	0.710	0.684	0.718	0.734	0.737	0.723	0.656	0.718
Shares	0.060	0.084	0.044	0.061	0.081	0.096	0.110	0.159	0.091
N. Savings	0.133	0.162	0.253	0.183	0.134	0.100	0.110	0.089	0.137
Other	0.017	0.015	0.008	0.013	0.019	0.030	0.028	0.043	0.023
PEPs	0.006	0.007	0.002	0.006	0.011	0.007	0.010	0.021	0.009
TESSAs	0.011	0.022	0.009	0.019	0.021	0.030	0.020	0.032	0.021

Table 3.14
Mean Portfolios by Wealth Group

Asset type	Band of financial wealth										
	£1 -49	£50 -100	£101 -305	£306 -575	£576 -1000	£1001 -1850	£1851 -3850	£3851 -8250	£8251 -15000	£15001 +	All
1987/88											
IBAs	0.502	0.883	0.825	0.779	0.813	0.745	0.799	0.774	0.814	0.469	0.761
Shares	0.0	0.0	0.0	0.101	0.070	0.128	0.086	0.083	0.069	0.207	0.062
N. Savings	0.463	0.109	0.171	0.110	0.102	0.104	0.092	0.094	0.065	0.113	0.146
Other	0.0	0.0	0.0	0.009	0.009	0.015	0.019	0.043	0.049	0.202	0.023
1991/92											
IBAs	0.404	0.884	0.685	0.817	0.786	0.752	0.746	0.724	0.686	0.349	0.718
Shares	0.0	0.0	0.162	0.059	0.096	0.113	0.098	0.102	0.124	0.282	0.091
N. Savings	0.596	0.110	0.145	0.114	0.085	0.084	0.064	0.062	0.082	0.157	0.137
Other	0.0	0.0	0.003	0.001	0.015	0.024	0.036	0.036	0.037	0.143	0.023
PEPs	0.0	0.0	0.0	0.002	0.005	0.006	0.015	0.024	0.022	0.039	0.009
TESSAs	0.0	0.005	0.005	0.009	0.012	0.022	0.041	0.051	0.049	0.030	0.021

By wealth, we see the more striking variations in portfolio structure observed in Table 3.4. Of particular note is the dramatic difference in the portfolios of the very rich from those of all other wealth holders. This is due to two effects: first, the high transaction costs associated with shares and with PEPs; and second, the different liquidity needs of individuals with different wealth levels. Across time, the more wealthy have shifted much of their wealth out of IBAs and into shares and National Savings. The least wealthy still concentrate their wealth in National Savings and IBAs, though there has been a noticeable shift towards National Savings. In contrast, the portfolios of the average wealth holders have shifted away from National Savings, partly to take out PEPs and partly to take out TESSAs.

The most striking change in portfolio composition between the two periods is the rise in share ownership, both directly and indirectly through PEPs, and the fall in holdings in IBAs. This is clearly partly due to the government's privatisation programme, but it is somewhat surprising, given the low return to equity in 1991/92 and the high short-term interest rates.

4. Conclusions

This paper presents the first detailed results from a newly available survey of income, household characteristics and financial assets and liabilities. It is clear that the very wealthiest group of the population is under-represented, but for the great bulk of the population, the data seem representative. The relationships we show seem consistent with intuition and economic theory. Financial wealth is unequally distributed, and varies predictably with both age and income. The distribution of wealth within age- and income groups is unequal to an extent similar to that for the overall distribution of wealth. Portfolio compositions vary with wealth, age and income, with a particularly marked shift from IBAs as the dominant asset for those with low wealth and income into equity-based assets dominating for the wealthy. The shift from IBA to equity-based and more favourably taxed assets that we observe as wealth and income increase is also evident for the whole distribution as we move from 1987/88 to 1991/92. We would stress again that these cross-section results cannot be interpreted as relevant for the experience of given households as they age through their life cycle. Although the focus of this paper is on financial wealth, we show that housing wealth and pension wealth are more equally distributed, and larger, than financial wealth.

Appendix A.
Financial Research Survey: Asset Breakdown

Table A.1
Asset Breakdown, FRS 1991/92
6622 observations

Asset type	Top coded	Number positive		Top coded	Number positive
Financial Wealth			*Financial Debt*		
Bank Deposit Ac 1	0	1473	Credit Card 1	1	2448
Bank Deposit Ac 2	0	85	Credit Card 2	2	587
Bank Deposit Ac 3	0	9	Credit Card 3	0	132
Bank Deposit Ac 4	0	0	Credit Card 4	0	40
Build. Soc. Ac 1	0	4172	Retail Card 1	0	712
Build. Soc. Ac 2	0	1180	Retail Card 2	0	152
Build. Soc. Ac 3	0	347	Retail Card 3	0	32
Build. Soc. Ac 4	0	96	Retail Card 4	0	5
Build. Soc. Ac 5	0	32	Loan 1	11	1333
NS Bonds (Ord.)	2	506	Loan 2	1	236
NS Bonds (Invest.)	2	197	Loan 3	0	30
NS Index Linked	2	62	Mail Order	0	1550
NS Fixed Interest	1	85	Agreed Overdraft	18	303
Premium Bonds	9	1599	Check Trading	1	11
NS Income Bonds	3	64			
NS Deposit Bonds	0	9			
NS SAYE	0	18			
NS Yearly Plan	2	7			
NS Index Linked	0	10			
NS Capital Bonds	0	16			
BA Shares	0	0			
BG Shares	1	230			
BT Shares	0	154			
BSteel Shares	0	0			
Water Shares	0	103			
RR Shares	0	0			
BAA Shares	0	0			
BP Shares	0	0			
Electricity Shares	0	267			
TSB Shares	0	0			
Other Denat. Shares	2	140			
Other Shares	20	448			
Abbey Nat. Shares	0	240			
PEPs	1	134			
LA Bonds	0	0			
Unit Trusts	4	202			
Investment Trusts	0	58			
Govt. Gilts	0	31			
Savings Clubs	0	65			

Appendix B.
Asset Breakdowns by Household Type, FRS 1991/92

Table B.1: Percentiles of Financial Wealth by Tenure Type

	10%	25%	50%	75%	90%	Mean	*N*
Mortgage	0	50	425	2385	7530	2564	3841
Owned outright	35	350	1650	7505	16000	6317	1384
LA rented	0	30	150	750	3500	1103	985
Private rented	0	50	268	1500	5000	1707	276
Other	0	50	228	1500	7150	1836	136
All	0	50	455	3500	7905	3080	6622

Table B.2: Percentiles of Financial Wealth by Work Status

	10%	25%	50%	75%	90%	Mean	*N*
Full-time	0	50	488	3000	7650	2825	3152
Part-time	0	50	380	2250	7500	2355	971
Self-employed	0	75	750	1500	7500	2197	1462
Not working	0	50	300	7650	18250	6409	803
Retired	30	300	1575	3555	9755	3648	234
All	0	50	455	3500	7905	3080	6622

Table B.3: TESSAs by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
1-49	457	0	0	0	0	0.00
50-100	884	0	0	50	50	0.68
101-305	596	1	0	110	150	0.84
306-575	647	3	0	350	350	0.93
576-1000	650	10	0	640	750	1.54
1001-1850	661	32	0	873	750	3.63
1851-3850	627	130	0	2159	1500	6.06
3851-8250	632	295	0	2909	3500	10.13
8251-15000	313	530	0	3770	3500	14.06
15001+	332	708	0	4702	3500	15.06

Table B.4: TESSAs by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	24	0	1600	1125	1.50
30-34	648	70	0	2702	3500	2.62
35-39	776	55	0	1956	1500	2.84
40-44	772	104	0	2377	1500	4.40
45-49	621	163	0	3071	3500	5.31
50-54	436	190	0	3194	3500	5.96
55-59	388	359	0	4224	3500	8.51
60-64	363	175	0	2446	3500	7.16
65-69	342	100	0	2875	3500	3.51
70+	410	153	0	3934	3500	3.90

Table B.5: TESSAs by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	47	0	2802	3500	1.70
1-2500	125	28	0	3500	3500	0.80
2501-4500	359	19	0	1150	750	1.67
4501-6500	380	105	0	3341	3500	3.16
6501-7500	195	69	0	2700	3500	2.56
7501-9500	231	119	0	3462	2125	3.46
9501-11500	335	156	0	4772	3500	3.28
11501-13500	346	120	0	2458	3500	4.91
13501-15500	334	101	0	1875	1125	5.39
15501-17500	328	110	0	2413	1500	4.57
17501-25000	880	100	0	2591	2500	3.86
25001+	900	213	0	2953	3500	7.22
Not known/Refused	1151	98	0	3055	3500	3.21

Table B.6: TESSAs by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	96	0	2569	3500	3.78
Owned outright	1384	191	0	3318	3500	5.78
LA rented	985	35	0	2333	750	1.52
Other	412	64	0	3785	3500	1.70
All	6622	105	0	2831	3500	3.73

Table B.7: Interest-Bearing Accounts by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
1-49	457	5	0	12	5	42.89
50-100	884	51	50	55	50	91.29
101-305	596	116	150	143	150	81.21
306-575	647	310	350	343	350	90.42
576-1000	650	607	750	664	750	91.38
1001-1850	661	1111	1500	1222	1500	90.92
1851-3850	627	2417	3500	2645	3500	91.39
3851-8250	632	4765	4925	5027	5000	94.78
8251-15000	313	7029	7575	7358	7850	95.53
15001+	332	7837	7500	8911	7500	87.95

Table B.8: Interest-Bearing Accounts by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	773	100	1001	300	77.22
30-34	648	1059	150	1421	350	74.54
35-39	776	1403	150	1845	450	76.03
40-44	772	1516	350	2087	750	72.67
45-49	621	2015	500	2591	950	77.78
50-54	436	2292	367	3163	1500	72.48
55-59	388	2727	750	3539	1500	77.06
60-64	363	3009	750	3754	1550	80.17
65-69	342	2846	750	3592	1500	79.24
70+	410	2464	350	3425	1500	71.95

Table B.9: Interest-Bearing Accounts by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	1007	150	1287	350	78.26
1-2500	125	733	50	965	150	76.00
2501-4500	359	1079	55	1595	350	67.69
4501-6500	380	1329	150	1871	725	71.05
6501-7500	195	1741	150	2443	500	71.28
7501-9500	231	1821	200	2404	750	75.76
9501-11500	335	1820	300	2410	750	75.52
11501-13500	346	1494	350	1950	750	76.59
13501-15500	334	1717	205	2304	750	74.55
15501-17500	328	1374	350	1740	750	78.96
17501-25000	880	1841	350	2295	750	80.23
25001+	900	2510	750	3187	1500	78.78
Not known/Refused	1151	1679	300	2303	750	72.89

Table B.10: Interest-Bearing Accounts by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	1416	300	1894	750	74.77
Owned outright	1384	2964	750	3608	1500	82.15
LA rented	985	775	50	1074	150	72.18
Other	412	1134	100	1507	350	75.24
All	6622	1627	300	2142	750	75.96

Table B.11: Personal Equity Plans by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
1-49	457	0	0	0	0	0.00
50-100	884	0	0	0	0	0.00
101-305	596	0	0	0	0	0.00
306-575	647	1	0	250	250	0.31
576-1000	650	4	0	625	750	0.62
1001-1850	661	8	0	1100	1500	0.76
1851-3850	627	51	0	2150	1500	2.39
3851-8250	632	155	0	3379	3500	4.59
8251-15000	313	227	0	3550	3500	6.39
15001+	332	1306	0	7352	3500	17.77

Table B.12: Personal Equity Plans by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	38	0	4220	1500	0.91
30-34	648	57	0	4687	3500	1.23
35-39	776	97	0	7600	4500	1.29
40-44	772	57	0	3160	3500	1.81
45-49	621	97	0	3375	3500	2.90
50-54	436	320	0	6987	3500	4.59
55-59	388	253	0	4678	3500	5.41
60-64	363	156	0	4729	3500	3.31
65-69	342	55	0	3166	3500	1.75
70+	410	96	0	4937	3500	1.95

Table B.13: Personal Equity Plans by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	99	0	7535	3500	1.32
1-2500	125	28	0	3500	3500	0.80
2501-4500	359	0	0			0.00
4501-6500	380	26	0	2500	2500	1.05
6501-7500	195	38	0	7500	7500	0.51
7501-9500	231	81	0	3750	3500	2.16
9501-11500	335	88	0	7375	5500	1.19
11501-13500	346	46	0	4000	3500	1.16
13501-15500	334	106	0	3944	3500	2.69
15501-17500	328	61	0	3375	3500	1.83
17501-25000	880	98	0	4312	3500	2.27
25001+	900	259	0	4770	3500	5.44
Not known/Refused	1151	66	0	4529	3500	1.48

Table B.14: Personal Equity Plans by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	82	0	4177	3500	1.98
Owned outright	1384	220	0	5865	3500	3.76
LA rented	985	11	0	5500	5500	0.20
Other	412	24	0	2500	2500	0.97
All	6622	97	0	4802	3500	2.02

Table B.15: Equities by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
1-49	457	0	0	0	0	0.00
50-100	884	0	0	0	0	0.00
101-305	596	43	0	250	250	17.11
306-575	647	25	0	296	250	8.35
576-1000	650	75	0	471	250	15.85
1001-1850	661	163	0	766	750	21.33
1851-3850	627	287	0	1226	750	23.44
3851-8250	632	604	0	2000	1000	30.22
8251-15000	313	1321	0	2738	1500	48.24
15001+	332	9347	1500	15212	10250	61.45

Table B.16: Equities by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	174	0	1818	750	9.59
30-34	648	431	0	3411	625	12.65
35-39	776	426	0	2563	750	16.62
40-44	772	624	0	3494	750	17.88
45-49	621	1002	0	4899	750	20.45
50-54	436	1004	0	4562	750	22.02
55-59	388	1363	0	5453	1000	25.00
60-64	363	1062	0	4592	1000	23.14
65-69	342	747	0	3154	750	23.68
70+	410	1532	0	7853	1500	19.51

Table B.17: Equities by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	306	0	3181	750	9.64
1-2500	125	184	0	3833	750	4.80
2501-4500	359	75	0	1009	250	7.52
4501-6500	380	167	0	1593	750	10.53
6501-7500	195	405	0	3038	1125	13.33
7501-9500	231	496	0	3278	750	15.15
9501-11500	335	404	0	2463	500	16.42
11501-13500	346	338	0	2171	250	15.61
13501-15500	334	675	0	3762	750	17.96
15501-17500	328	470	0	2754	750	17.07
17501-25000	880	1050	0	4918	750	21.36
25001+	900	1633	0	5589	1500	29.22
Not known/Refused	1151	536	0	3410	750	15.73

Table B.18: Equities by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	609	0	3497	750	17.42
Owned outright	1384	1290	0	5797	1000	22.25
LA rented	985	89	0	1195	250	7.51
Other	412	154	0	1511	375	10.19
All	6622	645	0	3913	750	16.51

Table B.19: National Savings by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
1-49	457	10	5	16	5	61.71
50-100	884	8	0	38	30	21.04
101-305	596	25	0	70	33	36.24
306-575	647	45	0	138	75	32.30
576-1000	650	67	0	211	68	31.69
1001-1850	661	123	0	342	75	36.01
1851-3850	627	207	0	599	75	34.61
3851-8250	632	354	0	810	75	43.67
8251-15000	313	870	0	1779	350	48.88
15001+	332	4282	30	6802	1500	62.95

Table B.20: National Savings by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	97	0	440	35	22.24
30-34	648	74	0	273	30	27.31
35-39	776	202	0	645	30	31.31
40-44	772	94	0	279	30	33.94
45-49	621	167	0	430	30	38.81
50-54	436	312	0	868	75	36.01
55-59	388	519	0	1291	75	40.21
60-64	363	999	0	2158	75	46.28
65-69	342	1168	0	2452	75	47.66
70+	410	1371	5	2677	288	51.22

Table B.21: National Savings by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	205	0	788	75	25.99
1-2500	125	417	0	1374	113	30.40
2501-4500	359	698	0	1660	75	42.06
4501-6500	380	398	0	1090	30	36.58
6501-7500	195	476	0	1385	75	34.36
7501-9500	231	398	0	1195	75	33.33
9501-11500	335	447	0	1498	30	29.85
11501-13500	346	426	0	1446	30	29.48
13501-15500	334	112	0	354	30	31.74
15501-17500	328	108	0	362	30	29.88
17501-25000	880	328	0	996	30	32.95
25001+	900	306	0	801	35	38.22
Not known/Refused	1151	379	0	1077	35	35.19

Table B.22: National Savings by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	152	0	500	30	30.49
Owned outright	1384	1035	0	2325	93	44.51
LA rented	985	135	0	490	30	27.72
Other	412	183	0	573	63	32.04
All	6622	336	0	1016	35	33.10

Table B.23: Other Assets by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
1-49	457	0	0	0	0	0.00
50-100	884	0	0	0	0	0.00
101-305	596	1	0	250	250	0.34
306-575	647	1	0	250	250	0.15
576-1000	650	13	0	654	750	2.00
1001-1850	661	36	0	1091	1500	3.33
1851-3850	627	113	0	2029	1500	5.58
3851-8250	632	232	0	2877	1750	8.07
8251-15000	313	371	0	3750	3500	9.90
15001+	332	4236	0	13023	8375	32.53

Table B.24: Other Assets by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	61	0	2798	1500	2.20
30-34	648	143	0	4032	1500	3.55
35-39	776	64	0	3125	1500	2.06
40-44	772	210	0	5594	3500	3.76
45-49	621	280	0	6223	3500	4.51
50-54	436	546	0	8508	3500	6.42
55-59	388	875	0	10287	3500	8.51
60-64	363	602	0	9943	6250	6.06
65-69	342	546	0	7781	5500	7.02
70+	410	479	0	10342	7500	4.63

Table B.25: Other Assets by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	101	0	3848	1500	2.65
1-2500	125	60	0	7500	7500	0.80
2501-4500	359	95	0	8562	9250	1.11
4501-6500	380	59	0	2812	2500	2.11
6501-7500	195	103	0	4050	3500	2.56
7501-9500	231	457	0	8134	7000	5.63
9501-11500	335	49	0	2062	1125	2.39
11501-13500	346	334	0	6808	3500	4.91
13501-15500	334	498	0	10406	3500	4.79
15501-17500	328	277	0	6500	2625	4.27
17501-25000	880	427	0	8005	3500	5.34
25001+	900	502	0	6281	3500	8.00
Not known/Refused	1151	223	0	8583	3500	2.61

Table B.26: Other Assets by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	206	0	5463	1500	3.78
Owned outright	1384	614	0	8770	3500	7.01
LA rented	985	54	0	5325	5500	1.02
Other	412	188	0	7045	750	2.67
All	6622	267	0	6744	3500	3.97

Table B.27: Net Housing Wealth by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	823	29726	17946	45270	41292	65.74
1-49	457	29381	0	63401	55246	46.39
50-100	884	19864	0	44654	42371	44.57
101-305	596	26024	2773	49976	44513	52.18
306-575	647	36119	20485	59345	48382	60.90
576-1000	650	34714	22729	55380	49709	62.77
1001-1850	661	36821	34187	51928	49558	70.95
1851-3850	627	48834	47547	62761	59179	77.83
3851-8250	632	58440	55244	70374	61471	83.07
8251-15000	313	62510	62193	76154	69923	82.11
15001+	332	78918	70094	84820	70094	93.07

Table B.28: Net Housing Wealth by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	8482	0	26875	21496	31.73
30-34	648	27937	22747	38964	34615	71.91
35-39	776	40792	35332	52099	45310	78.35
40-44	772	52416	46428	63074	53280	83.16
45-49	621	64343	56274	77301	63677	83.25
50-54	436	63458	60347	75404	69923	84.17
55-59	388	71565	69452	83896	70094	85.31
60-64	363	56314	60347	74066	69923	76.03
65-69	342	47829	60347	65169	69452	73.39
70+	410	39774	49800	63208	62193	62.93

Table B.29: Net Housing Wealth by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	13320	0	49641	49558	26.84
1-2500	125	18852	0	56107	72692	33.60
2501-4500	359	17759	0	45592	47716	39.00
4501-6500	380	25998	11601	49151	60347	52.89
6501-7500	195	30642	17112	53391	62193	57.44
7501-9500	231	35695	26643	54652	69452	65.37
9501-11500	335	32536	20089	48682	46603	66.87
11501-13500	346	37751	28121	53579	44629	70.52
13501-15500	334	32824	29474	44416	40966	73.95
15501-17500	328	41616	33135	55732	43976	74.70
17501-25000	880	48043	38192	58215	46437	82.61
25001+	900	63231	54717	70003	56856	90.44
Not known/Refused	1151	52012	54843	68294	70094	76.19

Table B.30: Net Housing Wealth by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	44924	34186	55123	42795	81.59
Owned outright	1384	59246	69923	69844	70094	84.83
LA rented	985	0	0			0.00
Other	412	0	0			0.00
All	6622	38440	27703	59134	52101	65.06

Table B.31: 'Debt' by Financial Wealth Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	823	1370	350	1773	750	77.28
1-49	457	852	30	1448	350	58.86
50-100	884	1019	45	1706	750	59.73
101-305	596	913	30	1586	700	57.55
306-575	647	947	75	1551	425	61.05
576-1000	650	874	75	1356	350	64.46
1001-1850	661	815	30	1350	350	60.36
1851-3850	627	857	75	1331	350	64.43
3851-8250	632	966	35	1497	350	64.56
8251-15000	313	1004	120	1504	350	66.77
15001+	332	746	75	1142	350	65.36

Table B.32: 'Debt' by Age-Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
21-29	1866	950	75	1512	500	62.86
30-34	648	1223	350	1621	500	75.46
35-39	776	1277	350	1694	700	75.39
40-44	772	1268	350	1688	700	75.13
45-49	621	1296	150	1825	505	71.01
50-54	436	1192	150	1836	425	64.91
55-59	388	660	30	1154	350	57.22
60-64	363	527	5	938	150	56.20
65-69	342	150	0	390	115	38.60
70+	410	75	0	261	75	28.78

Table B.33: 'Debt' by Income Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
None	1058	717	5	1411	425	50.85
1-2500	125	211	0	527	75	40.00
2501-4500	359	347	0	732	150	47.35
4501-6500	380	295	0	648	150	45.53
6501-7500	195	658	0	1352	150	48.72
7501-9500	231	695	30	1147	350	60.61
9501-11500	335	758	35	1233	350	61.49
11501-13500	346	887	75	1353	380	65.61
13501-15500	334	992	150	1381	465	71.86
15501-17500	328	1221	235	1655	600	73.78
17501-25000	880	1439	350	1849	750	77.84
25001+	900	2046	750	2370	825	86.33
Not known/Refused	1151	589	30	992	350	59.43

Table B.34: 'Debt' by Tenure Group

Group	Cell size	Mean (all obs.)	Median (all obs.)	Mean (> 0)	Median (> 0)	Percentage > 0
Mortgage holder	3841	1235	225	1716	700	71.99
Owned outright	1384	521	5	1027	180	50.72
LA rented	985	574	5	1110	350	51.78
Other	412	867	32	1429	350	60.68
All	6622	965	75	1512	380	63.83

Appendix C.
The Calculation of Net Housing Wealth

As the FRS is primarily a survey of financial products rather than of all household assets, we have much more complete information on house values for mortgage holders than for owner-occupiers. In fact, for the case of owner-occupiers we know nothing in either 1987/88 or 1991/92 about the value of their home. Mortgage holders in 1991/92, however, were asked the initial value and duration of their mortgage, and the year in which it was taken out. These individuals were also asked the price they paid for their house. Our procedure is as follows.

Case 1: House Owned Outright (1387 observations)
For owner-occupiers who own their house outright, we impute housing information from the 1991 British Household Panel Survey (BHPS). First, we compute the 'nuclear family' income definition from individual records to correspond closely to that in the FRS data which we then divide into 11 bands corresponding to the FRS definitions. There are 1129 BHPS observations over these 11 cells and we compute the mean in each cell. We then simply attribute the mean housing wealth of owner-occupiers by income band from the 1991 BHPS to each owner-occupier in the FRS.

Case 2: Mortgage Holders with Complete Responses (2771 observations)
We are forced to assume that all mortgages are repayment mortgages (or, equivalently, that at all times an endowment policy provides an asset equal to the amount that would have been paid off in a repayment mortgage). Since the earliest mortgage in our FRS sample was taken out in 1955 and the regional house price series only began in 1969, we can only use national house price deflators to uprate housing wealth. Denote this index P_t^H in period t. If i is the mortgage rate (we use the average building society mortgage rate series) and T is the term of the mortgage (of size M), then we compute the monthly payment, P:

$$P = \frac{Mi(1+i)^T}{12[(1+i)^T - 1]}. \qquad (C.1)$$

The proportion of the loan outstanding after n years is given by Q:

$$Q = (1+i)^n + \frac{12P[1-(1+i)^n]}{Mi} \qquad (C.2)$$

and we can then compute net housing wealth, W, by

$$W = V\frac{P_{92}^H}{P_D^H} - QM \qquad (C.3)$$

where V is the purchase price of the house and D is the initial mortgage date.

Case 3: Mortgage Holder with Partial Information (283 observations)
If the household provides M but not V, we assume that V=M and apply (C.1)-(C.3) above. This minimises the estimate of W since it effectively assumes the household puts no equity into the house at the time of purchase. If the household provides V but not M, we assume M=V and the above applies. If the household does not provide T (92 observations), we assume T=25. If we do not have information on D, we treat it as Case 4 below.

Case 4: Mortgage Holder with No Information about Mortgage (731 observations)
If we do not know D, or alternatively neither M nor V, we turn again to the BHPS. Once again, we impute house values by income in the same way as Case 1. We then have to compute *net* housing wealth since (unlike in Case 1) these households are still in the process of buying their houses. To do this, we compute net housing wealth as a proportion of current market value for those households in Case 2. We simply apply the mean of this proportion to the market values from the BHPS for those mortgage holders about whom we know nothing.

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