Empirical evidence on the portfolios of UK households

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Version: December 1999

☆☆☆ preliminary draft, not for citation ☆☆☆

Paper prepared for 'Household Portfolios', edited by Luigi Guiso, Michael Haliassos and Tullio Jappelli.

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Acknowledgements: This study forms part of the IFS research programme into 'The changing distribution of consumption, economic resources and the welfare of households' funded by the Leverhulme Trust, to whom we are very grateful. Co-funding has been provided by the ESRC Centre for the Microeconomic Analysis of Fiscal Policy at IFS. Many thanks are also due to NOP Financial for providing us with the FRS data used in this study and to Nick Watkins and Julia Beaver at NOP for helpful discussions during our subsequent analysis of the survey. Material from the FES made available by the ONS through the ESRC data archive has been used by permission of the controller of HMSO. Neither the ONS, the ESRC Data Archive, the Leverhulme Trust or NOP Financial bear any responsibility for the analysis or interpretation of the data reported here. Any errors are attributable solely to the authors.

I INTRODUCTION

This paper provides descriptive evidence on the portfolios of UK households and how they have changed in recent years. Many of the features of household portfolios in the UK are shared with other countries. By far the most important items of measured household portfolios are housing and private pensions, although for current generations of retirees current and future state pension rights are also an important part of their wealth. Within liquid financial assets, we see considerable inequality of asset ownership between different households. We see relatively low levels of diversification in terms of the proportion of households holding equity directly (and the portfolio share). And we see that age, income and education are important factors in describing both the level of wealth that households have, and the degree of portfolio diversification.

A key problem in analysing wealth and portfolio allocation in the UK is the absence of good official survey data. Surveys such as the Family Expenditure Survey which provide a reliable consistent time-series of information on households' spending and income collect almost no information on their wealth. To get information on levels of wealth we use a privately collected source of information – the Financial Research Survey collected by National Opinion Polls. This contains banded information on the amount of wealth that individual have in different types of assets. However, compared to the FES it contains less detailed information on demographic characteristics (and incomes). Also, the Financial Research Survey has not been collected on a comparable basis over a long time period. However, we exploit what information is available in the FES on receipt of interest and dividend

income from different financial assets to identify ownership of these assets in order to look at trends in ownership over time.

We believe that there are two key features of the portfolios of UK households of interest in comparison to other countries. The first is the experience of the UK in the 1980s. This was a decade that saw dramatic, and rapid, changes in the levels of ownership of different assets – private pensions, housing and stocks and shares. In all cases, government policies were fairly critical in driving the changes – through the introduction of personal pensions, through the 'right-to-buy' policy and the privatisation of nationalised industries. In the latter section of this paper we document these changes in quite a lot of detail. In the case of share-ownership, for example, the proportion of households owning shares more than doubled during a four-year period in the mid-1980s. We see that the extensive advertising provided by the government for its privatisation programme was successful in attracting new shareowners from younger age groups, and the less well-educated (although not typically from middle or lower-income groups), as would be predicted by Haliassos and Bertaut (1995) in their analysis of share-ownership. There is some evidence that the privatisation experience had a wider effect in promoting share-ownership since younger households who are too young to have experienced privatisation directly nevertheless have a higher level of share-ownership than older cohorts. However, many shareowners only hold shares in privatised industries – and more recently de-mutualised building societies.

A second key feature of the UK is the government's use of tax incentives to try to encourage saving – whether through pensions or through designated 'tax-free' savings schemes such as Tax Exempt Special Savings Accounts (TESSAs), Personal Equity Plans (PEPs) and Individual Savings Accounts (ISAs). We describe the current tax treatment of different assets in some detail, drawing attention to the way that the

tax system favours some assets – such as pensions – more than others. We also present some evidence on the take-up of TESSAs and PEPs and on the link between take-up and tax status. Perhaps not surprisingly, we find evidence that being a higher rate tax-payer has a positive effect on the probability of holding a PEP, conditional on age, education and total wealth.

In what follows we focus entirely on sources of data on saving and asset holding, and in providing descriptive evidence for comparison with other countries. We do not describe the system or institutional factors in particular detail. For useful summaries of these issues see Budd and Campbell (1998) or Blundell and Johnson (1998) with particular respect to pensions, or Banks and Blundell (1995) for savings institutions more generally.

II DATA SOURCES

For a country that has been typically at the frontier of household data collection in the past we have frustratingly little detailed household information on portfolios. Ideally we would like to know how much wealth people hold in different forms (for example, building society accounts, TESSAs or shares and also housing, pensions and life insurance) by which types of individuals. Such an analysis is not possible using any of the publicly available official household surveys in the UK. Relative to other countries, and in particular the US, the information available on wealth is poor, a situation which is not the case for, say, income or expenditure.

Fairly detailed information on wealth is available for a cohort of retired households in the DSS Retirement Survey (see Disney, Grundy and Johnson (1997)). However, this contains no information on working age households and the sample

size for the retired is fairly small. Finally, the most recent wave of these data, collected in 1994, is already somewhat out of date.[1]

In what follows therefore, we use a privately collected survey — the Financial Research Survey collected by National Opinion Polls — which provides detailed information on wealth holdings in many forms for a large and up-to-date sample.[2] We also exploit the information on spending and income in the Family Expenditure Survey (FES) to identify whether or not households have particular assets (although not how much they have).[3]

The FES has been collecting consistent data on the characteristics, expenditures and incomes of about 7,000 households every year since 1968. The data on incomes and expenditures have been used extensively in analysis of consumption growth, both over time and by different types of households (see Attanasio and Weber (1993) and Banks and Blundell (1994), for example). The FES contains far less information on individuals' stocks of wealth. But information on interest income received from stocks of wealth held in interest-bearing accounts, dividend income from stocks and shares and the information on contributions made to private pensions and life insurance policies can be used to construct indicator variables for whether or not households in the FES have particular assets. This is not as rich a data source as if we had information on the value of each asset, but the advantage of the FES is that the ownership variables can be constructed on a consistent basis over a long time period. This allows us to describe the main trends in patterns of ownership between 1978 and

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[1]The other source of information, which we do not use extensively here, is the British Household Panel Survey which, in 1995, collected a special battery of information on wealth holdings of the panel sample. The primary reason for not using this source is that the sample size would prohibit reliable detailed population breakdowns for the less intensely held assets.

[2]We are very grateful to National Opinion Polls for allowing us access to these data and for advice with processing and analysing them. The interpretation of the data is ours alone.

[3] For a detailed analysis of the information in both these data sources see Banks and Tanner (1999a)

1996, a period when ownership of many assets, such as housing, shares and pensions, was changing fairly dramatically

The *Financial Research Survey* (FRS) is an ongoing survey collecting information on around 4,800 individuals per month. Information is obtained on all liquid financial assets and liabilities held, with banded data on balances for most, as well as specific brand and product information for almost all. The survey also has demographic variables relating to the household of which the individual is a member, some data on incomes and summary information on other financial products, such as pensions, mortgages and insurance, for which there are less detailed data. Two earlier years of this survey were used by Banks, Dilnot and Low (1994) to document the distribution of wealth in 1987–88 and 1991–92,[4] but in the majority of the analysis below we use data covering the period January 1997 to June 1998. We do, however, draw on results from earlier years.

The main issue with using the FRS data is that the unit of observation for the survey is the individual rather than the household. That is, one individual from a household is questioned, even though some questions refer to the household in which they reside and others refer to their family. Apart from excluding from our analysis those aged 21 or under and those in full-time education, we use all observations in what follows. All months of the survey are pooled together for the analysis. The resulting sample sizes for each month are given in Table A1 in the Appendix. In total, there are over 75,000 individuals in the sample, distributed evenly over the 18-month period, with an average of 4,244 observations per month.

[4]At that time, the survey was being conducted differently and as a result had much smaller sample sizes.

The fact that the unit of observation of the survey is the individual, not the household, needs to be borne in mind when interpreting the analysis that follows and comparing results with those from other surveys. This is particularly the case since the survey questionnaire is designed such that some asset information is collected on joint assets as well. For the assets on which we have values — that is, financial assets: savings and deposit accounts, National Savings products and other investments (for example, shares and unit trusts) — the survey asks 'Do you have any of the following assets?' and goes on to ask if the asset is jointly held. Details relating to mortgages, life insurance policies, loans and current accounts at the bank (where, in all cases, values are not collected) are specifically requested, 'including products or policies held jointly with someone else'. The analysis is, therefore, best thought of as measuring individuals' access to savings funds and products and providing information on the locus of control available to individuals in managing their financial circumstances.

Wealth values in the survey are collected in bands and, for the purposes of this paper, we use the mid-points of the bands to estimate holdings.[5] For those individuals who say they have a particular asset but cannot recall, or refuse to say, the balance, we impute to that observation the median value of those of the same age band and education group who hold that asset.[6]

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[5]One alternative would be to report minima and maxima for each asset or asset group, but, when aggregating across assets, the banded estimates can very quickly become uninformatively wide, so we use mid-points instead. We have tried alternative estimators and confirmed that the results change little when using different assumptions or more flexible techniques such as grouped estimation. Primarily, this is because the bands are very tight (within £10 or £100) wherever there is a large density of data, and the number of assets held is typically low.

[6] All in all, 25% of observations require some imputation, although only 4% of the sample (i.e. less than a fifth of those for whom some imputation is required) refuse all questions on asset values. Of those who refuse some but not all of the value questions they are asked, 52% (11% of the total sample) refuse only one, and a further 19% (4% of the sample) refuse only two.

A final issue that always arises with household wealth surveys is the degree to which they accord with aggregate measures of total or financial wealth. The *Financial Resources Survey* does not oversample the wealthy, and given the inequality in the distribution of wealth (see below and Table A2 in the appendix) this leads to grossed up totals for both financial wealth and for components of financial wealth substantially underrepresenting the aggregate wealth of the economy. Banks, Dilnot and Low (1994) and Banks and Tanner (1998a) find that FRS accounts for around 40% of aggregate financial wealth, although grossed up numbers of account holders look much more comparable. The underrepresentation of the wealthiest UK households in the FRS is confirmed in our Table 5 below where it is clear that the top 5% of the FRS wealth distribution look similar to the top quarter of the distribution, a situation unlikely to be the case given the large degree of inequality of financial wealth holdings. Such issues must be borne in mind in the analysis that follows, although it is worth saying that asset ownership rates, and estimates of median wealth holdings will be largely unaffected, as will, to some extent, the mean portfolio shares we present in later sections.

III PORTFOLIO STRUCTURES

In this section we look at the overall distribution of household assets across asset types, focussing in turn on financial assets and on total assets. Given the data available we are able to provide much greater detail on financial assets, and only summary statistics on ownership for non-financial assets such as occupational (or personal) pensions, housing and self-employment wealth. We provide breakdowns of average ownership rates for non-financial components of wealth for comparative purposes.

III.1Macroeconomic data

Table 1 reports portfolio shares for different assets calculated using aggregate data at five-yearly intervals between 1980 and 1995, and shows that the most important items of household wealth are housing and pensions. This is despite the fact that this table does not include accrued entitlements to state unfunded pension wealth (a flat rate pension and an earnings related portion – SERPS). This can be substantial for current retiring cohorts, but will decline in the future following reductions in the generosity of the basic state pension and SERPS. As some guide to the potential importance of this component of wealth, Banks and Emmerson (1999) show that the current liabilities, given announced policy changes, in state unfunded pensions is £950 billion, of which the majority (£605 bn) is in basic state pension rights.

Of course there are a number of potential problems with aggregate data, not least a set of issues arising from the way the figures for total personal sector wealth are calculated from inheritance tax returns.[7] Also, the distribution of wealth is extremely unequal. In 1995, the top 1 per cent of the wealth distribution owned 19 per cent of total personal sector wealth, the wealthiest 5 per cent owned 39 per cent of total marketable wealth and the bottom half of the wealth distribution accounted for only 7 per cent of total wealth (see table A2). Although this distribution is equalised somewhat by the inclusion of occupational pension rights, it is still the case that the top half of the wealth distribution account for 89%, What this means is that changes in the aggregate statistics could be driven by changes in the behaviour of a very few – and very wealthy – individuals.

However, the aggregate statistics do give us an insight into some of the key changes that occurred in wealth-holding in the UK, trends that are picked up in micro-

data and that we analyse in greater detail in later sections. As far as the definition of financial asset classes is concerned, there are some issues relating to out ability to provide wealth breakdowns, from aggregate statistics, that are directly comparable to others in this volume. First, it is not possible to separate life insurance funds from pension funds in recent years, so we group them throughout. Second, to proxy the item for mutual funds we separate out unit trusts and investment trusts – pooled investment vehicles in which individuals typically hold a portfolio of investments chosen automatically by fund managers.[8] Finally, one category of assets, National Savings, is peculiar to the UK. National Savings is a government agency providing savings and investment vehicles which are used to finance national borrowing. But the agency provides a number of assets of various characteristics, most of which do not have the characteristics of traditional government bonds. For example they provide short and medium term deposit accounts paying fixed rates of interest, some instant access products, and various types of bond. In the official aggregate statistics reported in Table 1 it is not possible to distinguish between the amount of wealth held in each of these forms, hence this item represents a very heterogeneous part of the portfolio. In the microeconomic analysis that follows we are able to distinguish between different forms of National Savings products and group them with assets of similar characteristics.[9]

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[7] See Davies and Shorrocks (1999) for discussion of these issues.
[8] Although self-managed funds are available they are uncommon, and charges are particularly high.
[9] More precisely, we code NS Ordinary Account, NS Investment Account and NS Premium Bonds as transactions / savings accounts. The latter category are a liquid asset offering returns through a monthly prize draw, and are commonly thought of as liquid savings. NS Certificates and NS Fixed Interest Certificates are coded as long-term savings deposits. Other National Savings products (NS Children's bonds, NS First option Bonds, NS Income bonds, NS Deposit Bonds, NS Index linked income bonds, NS Capital Bonds, NS Pensioners guaranteed income bond and Other National Savings) are treated as government bonds, even though they are bought directly by the household sector via the network of Post Offices.

The first changes over time to note are within the group of financial assets. As in other countries, there has been a decline in the proportion of financial wealth held in bank and building society accounts and in government securities. The proportion of financial wealth held in cash and bank and building society accounts has fallen from more than one-third in 1980 to less than one-quarter in 1995. The proportion of total financial wealth held as government debt – both bonds and National Savings – has also fallen by five percentage points over the period. The proportion of financial wealth allocated to equity – particularly indirect holdings through life and pension funds – has risen over the period. The big increases occurred between 1980 and 1985 and between 1985 and 1990. Over the period as a whole, the proportion of people with life insurance products has been falling steadily as we show later using micro-data. The increase in the portfolio share in life and pension funds in the second half of the 1980s is likely to be related to the introduction of personal pension schemes in 1988, which were taken out by around one-in-five of all employees by 1990.[10] There are two possible explanations for the increase in the early 1980s. One is an increase in the number of endowment mortgages[11] sold – relative to repayment mortgages. A second explanation is that the increase is related to the change in the tax treatment of life insurance in 1984. The Chancellor announced in the 1984 Budget that – with immediate effect – all premia on life insurance policies taken out would be subject to tax. But premia on all life insurance policies taken out before then would continue to enjoy tax relief for the duration of the policy. In spite of attempts at Budget secrecy over this change, there was a dramatic increase in the number of policies taken out during the months before the announcement.

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[10] See Disney, Emmerson and Tanner (1999).

In spite of increases in the proportion of households owning shares in the 1980s (which we describe later on), there was no increase in the proportion of total financial wealth held as direct equity holdings. In fact the equity share falls over the period.[12] This is likely to reflect the fact that many of the equity holdings were fairly small and often restricted to shares held in privatised companies. The share of financial wealth in direct equity holdings does increase in the 1990s, which may be due to an increase in take-up of tax-free equity schemes (Personal Equity Plans) which we discuss in more detail later on and/or due to rising share prices.

Within total wealth there has been a shift towards financial assets – driven largely by this increase in life and pension funds – and a decline in the importance of real estate. However, the proportion of total wealth held in real estate appears to be quite heavily affected by movements in house prices, and in particular the house price boom in the late 1980s and the bust in the early 1990s. Table 1 also shows there has also been an increase in household indebtedness over the period as a whole – from 11% of total assets in 1980 to 14% of total assets in 1995, although all of the increase occurred between 1980 and 1985. Later in the paper we document some of the changes that occurred particularly in the market for mortgages which are likely to account for this change and which are reflected in a steady increase over the period in mortgage debt as a proportion of total assets. Other debt remained constant – even in nominal terms – between 1985 and 1995.

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[11] With an endowment mortgage only the interest on a mortgage is paid off over the term, and an endowment policy is taken out to cover the principal on maturity.

[12] Attanasio, Banks and Tanner (1998) cite evidence that, due to growth in total shares, the share of equity held directly by the household sector has therefore been falling quickly over time, with rapid growth in the holdings of pension funds.

III.2Survey data on asset ownership rates

Turning to survey data we can look at the ownership rates of various forms of financial assets as well as the accumulated balances, and it is here that the inequality in the distribution of wealth is clearly visible. In Table 2(a) we present ownership rates for a variety of asset classes. By far the most commonly held assets are liquid interest bearing accounts, held by almost 90% of the population. Long term deposit accounts and certificates of deposit[13] are much more rarely held. Government bonds appear to be more widely held, with one quarter of the population reporting ownership, although much of this reflects the prevalence of National Savings bonds, which tend to be held in small quantities for long time periods. Such holdings make up a very small portion of the financing of government debt (typically less than two per cent in any one year), but are held by a wide number of households, possibly as a result of their availability at post offices. Around one fifth of the population hold equities directly, and 11.5% hold unit and investment trusts, intermediated investment vehicles which will almost always have equity components of one form or other. We look at these holdings in more detail in later sections.

In addition to information on stocks of financial assets, the FRS contains limited information on the ownership of other financial products, including life insurance and pension policies. We include these for completeness in Table 2(a). As a (poor) proxy for the ownership of business wealth we simply report proportions of individuals who are self-employed. Similarly, to proxy the ownership of housing wealth we use a dummy to capture whether the household is an owner-occupier. In

[13] This includes long notice accounts at the bank and building society, Tax Exempt Special Savings Accounts (minimum holding period 5 years) and National Savings Certificates of Deposit.

the absence of other information on these components of wealth this is as much as we can do.

Around 22% of adults have an occupational pension. This represents around one half of employees, as is confirmed in other surveys and official statistics.[14] For personal pensions there is some evidence of under-reporting in the FRS. Table 2(a) shows 8% of the FRS sample as owning personal pensions, whereas other studies estimate ownership rates to be around 25% of employees, translating to 11% of adults. Finally, the table shows that life insurance funds are also one of the more commonly held assets, with 37.6% of the population owning policies in 1997-98. If anything this is an underestimate, particularly in comparison to the figures we present later from the FES data, because the FRS classification does not include life-insurance policies held in association with endowment mortgages. These mortgages were particularly popular in the home-ownership boom of the 1980s.

Unfortunately the FRS data used in Table 2(a) do not go back over a long period on a consistent basis. Therefore, to show how the prevalence of portfolio items has, on average, changed over time, we present tabulations from FES data in Table 2(b). The information from the FES also acts as a check for the FRS information (and vice versa). In the FES we impute ownership from receipt of interest or dividend income over the last year, which is collected in only enough detail to allow us to identify three broad groups of financial assets.[15] In addition, direct questions are asked in the FES about ownership of life insurance policies, pensions, housing wealth

[14] 1996 General Household Survey shows that 64% of male adults and 50% of female adults work. Of these, 77% and 88% respectively are employees, of whom around one half have occupational pension plans (Budd and Campbell, 1998). This leads to an estimate of 23% of adults with an occupational scheme, confirmed in the FES data.

[15] Of course, transactions accounts not paying interest will not be picked up by this technique, thus explaining the lower incidence of 'savings' accounts in Table 2(b) than in Table 2(a). The FES

and mortgages although, as mentioned earlier, some of the life insurance policies will be associated with household mortgages. There are striking trends in households' asset ownership rates over the last twenty years, most importantly perhaps, in the proportion of households owning stocks, pensions and housing. These trends will be discussed in more detail in section IV below.

In Table 3 we look at the proportion of financial assets that are held in various forms across the population of wealth-holders. In considering these tables, and those that follow presenting asset shares, it should be remembered that a large proportion, almost 30%, of the population have no financial assets. Part, but by no means all, of this is a result of young households possibly still to begin their savings histories. But there are also significant fractions of older households with no financial assets (see Banks and Tanner (1999a)), which has meant that the issue of 'financial exclusion' — the lack of access to financial assets and resulting low levels of ownership of financial wealth in certain groups — has become an important policy issue, particularly within the context of the gradual withdrawal of the state from the provision of welfare, and the move towards targeted benefits.[16] Once again in Table 3 we use FRS data, since they provide banded asset values for all assets except checking and transaction accounts. As a result, therefore, the prevalence of savings accounts is 0.617 as opposed to 0.898 in Table 2(a) when current accounts were included.

Table 3 confirms the results of other countries, that, on average, household financial wealth is not predominantly held in a risky form. More precisely, the table shows that more than half of total financial assets is held in the form of savings accounts at the bank or building society. And although government bonds are widely

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numbers correspond much more closely to the 'interest-bearing savings accounts' numbers from the FRS presented in Table 3.

[16] See OFT (1999) and Kempson and Whyley (1999)

held (as a result of the National Savings products), balances are typically low and they represent only a small proportion of total financial wealth. Finally stocks represent a fairly small fraction of wealth, just over 13%, because many holdings are small, possibly as a result of the privatisation and de-mutualisation process that we will describe in detail below.

The correlation between ownership of risky (R), partially safe (PS), and safe (S) assets is investigated in more detail in Tables 4(a) and 4(b). In Table 4(a) we allocate the set of financial assets into each of the three categories, with partially safe assets being defined as diversified portfolios of risky assets (mutual funds, investment trusts and unit trusts and PEPs) and risky assets being undiversified holdings of risky assets – stocks and bonds. In Table 4(b) we allocate total assets into these three groups – adding pensions, life insurance and housing to the Partially Safe category since they are, at least in principle, diversified, and business assets into the 'risky' category. As a result of the high levels of ownership of housing and pensions the proportion of the population with balanced portfolios (i.e. safe, fairly safe and risky assets) is much greater when taking into account the effects of pensions and housing. This is important to remember when considering the nature of household financial wealth portfolios. In particular, the degree to which pensions are (considered) to be safe or fairly safe assets, will obviously be an important determinant of other items of UK household portfolios, particularly given that private pension provision now covers around three quarters of employees. For example, taking the effect of pensions and housing into account reduces the proportion of the population with only safe assets from 49.9% (when considering financial assets alone in Table 4(a)) to 12.7% in Table 4(b).

In Table 4(c) we use FES data to construct an equivalent classification for households going back over the last twenty years, taking into account all forms of wealth, as opposed to just financial assets. Once again, large changes can be seen in average portfolios, particularly between 1978 and 1988.[17] The substantial increases are in the proportion of households holding mixed portfolios, predominantly as a result of increasing ownership of shares, housing wealth and pensions.

Of course, unconditional population averages conceal important variation in portfolio allocations across the population at large. In Table 5 we show how the portfolio shares for those with positive financial wealth vary by the level of wealth. We divide the population into quartiles of wealth, and also include an extra column to look at the portfolios of the top 5% of the distribution (who are also included in the column for the top quartile). As one would expect, the concentration in risky assets increases further up the wealth distribution, although in the top quartile these are predominantly held in the form of investment trusts, unit trusts and PEPs as opposed to direct holdings of stocks. This pattern presumably reflects the fact that the privatisation of previously nationalised utilities and the de-mutualisation of building societies that has underpinned the increase in share ownership highlighted in Table 2(b) and discussed in detail in the next section, has brought share ownership down the wealth distribution into areas of the population who were not typically holding other forms of risky financial assets. The high importance of government bonds in the bottom quartile reflects once again, the importance of National Savings products for lower income or wealth households, possible as a result of their point of sale. These assets are not so important in the middle of the wealth distribution.

[17] Remember that the FES category for 'safe assets' does not include transactions accounts that do not pay interest, whereas that from the FRS does. Hence the incidence of households with safe-only portfolios (**POO**) is lower, and the proportion of 'none' (**OOO**) is higher than in Table 4(b) for example.

What is also striking in Table 5 is the degree to which the top 5% of the wealth distribution have portfolios similar to the top quartile, pointing once again to significant undersampling of the most wealthy group of society in the FRS data. *A priori*, given the inequality observed in the wealth distribution, and particularly in the distribution of liquid financial wealth, one would expect this group to be holding substantially higher fractions of risky assets.

Finally in this section we split the population according to their age and look at the profile the proportion of each group holding risky assets, and the share of the portfolio accounted for by those risky assets (conditional on positive wealth).[18] once again we present this analysis for liquid financial wealth only as a result of the lack of measurement of values of other items of household wealth in the survey data available for the UK.[19]

Using the FRS data from 1997/98, Table 6(a) shows that both the ownership, and importance, of risky assets display a hump shaped age profile, at least in cross-section. The proportion of the population holding risky assets rises, peaking at ages 50-70 at almost 50%, before falling in the oldest age group. This downturn could be a result of trading out of risky assets as individuals age or simply a cohort effect since, in cross-section, such older households will come from poorer generations as a result of economic growth.[20] The hump shape in risky asset shares (for those with positive wealth) is more pronounced, with fall of over one quarter between the 50-59 and 70+ groups.

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[18] In this case we include the diversified risky assets classed as 'partially safe' in Table 4.
[19] Even were such data available, it would be potentially difficult to interpret, particular given conceptual difficulties in the valuation public and private pension wealth and life insurance funds.
[20] It is worth noting that the effects of wealth related differential mortality will work in the opposite direction to offset this.

In Table 6(b) we draw on the analysis of earlier years of the FRS data described in Banks, Dilnot and Low (1994) to look at how the age profile for risky financial assets has changed over time.[21] Although the profile for conditional asset shares has been hump-shaped in all three years, the profile has shifted up substantially, as would be expected given the changes we have described earlier. As a result, a 50-54 year old who would have been predicted to run down their share of risky assets, given the cross-sectional profile observed in 1987-88, would, ten years later, now be expected to be holding substantially more of their portfolio in risky forms. In the presence of such strong time effects, and presumably cohort effects arising from economic growth and increasing financial deregulation and financial literacy, the age profile of holdings of risky assets becomes difficult to interpret in anything but the most descriptive way. In the next section we focus in detail on some of these time effects, describing changes in the market for risky assets in the UK over the last twenty years.

IV OTHER INTERESTING ISSUES OF THE UK SAVINGS MARKET

IV.1 Recent trends in asset ownership

The 1980s were a period of enormous change in the distribution of wealth in the UK. Ownership of housing, private pensions and stocks and shares all increased dramatically during this decade. In each case, government policies were important factors driving the changes – in particular the introduction of personal pensions, the

[21] Although the survey was very different in structure in these earlier years, and had a much reduced sample (of some 6,500 observations per year) it is possible to get a broad definition of conditional portfolio shares for equities, bonds and unit trusts, investment trusts and PEP's from the earlier years. The definition of risky assets in the final column (for 1997/98) has been adjusted to get comparability across years, and hence differs from that in Table 6(a).

'right-to-buy' policy and the privatisation of nationalised industries. Here we discuss two of these trends in more detail – the increase in home-ownership and the rise in share-ownership.[22]

IV.1.1 Home-ownership

The proportion of households in the FES owning their home increased from just over half in 1978 to two-thirds in 1996. Most of the increase occurred during the first half of the period, coinciding with the introduction of the Conservative government's 'right-to-buy' programme. This policy sold off more than 1.6 million council houses to their tenants, often at considerably less than market rates. A second major change during this period was the liberalisation of the mortgage market. In particular, banks were able to compete with building societies in the mortgage market, while the activities of building societies were de-regulated (in particular individual building societies were given control over the rate of interest). The 1980s witnessed a huge growth in mortgage lending. In 1982, the total value of mortgage loans was 32 per cent of GDP. By 1989, it was 58 per cent. There was also an increase in the average size of loans as a proportion of house prices: from 75 per cent in 1980 to 84 per cent in 1990.[23]

An analysis of home-ownership rates across different date-of-birth cohorts (Figure 1) shows that the biggest increases in home-ownership have been among the middle generations, i.e. people who were in their forties and fifties 1986. The general rise in home-ownership rates has been driven largely by this generation replacing older cohorts with lower levels of home-ownership at all ages. However, there has not

[22] For a lengthier discussion of these issues see Banks and Tanner (1999a) and Johnson and Tanner (1998)
[23] Source: Muellbauer and Murphy (1990)

been any further increase in levels of home ownership between the middle cohorts and the youngest cohorts. Households in their twenties and early thirties in 1996 are no more likely to own their own home than households in their twenties and early thirties in 1978. This is a somewhat surprising finding, given the changes that occurred in the financial market during the 1980s. It would be expected that liberalising the mortgage market — allowing people to borrow a higher proportion of the purchase price and greater multiples of their current salary, for example — would be of greatest benefit to younger households who typically have lower levels of savings to put towards house purchase. In part, the fact that levels of home ownership among younger people are still the same as they were in 1978 may be caused by business-cycle effects. In addition, and probably more important, it may be a reflection of other social changes, including more young people going to university (and therefore starting work later) and trends towards later marriage and childbearing which would tend to mean people entering the housing market at a later age. Related, these changes in household formation and composition will have meant that to some extent, the group defined by 'households where the head is under 30' has been changing over time in the succession of cross-sections.

IV.1.2 Share-ownership

At the beginning of the 1980s, fewer than one in 10 households owned shares directly. By the end of the decade, the figure was more than one in five. Most of the increase occurred during a concentrated four-year period from 1985 to 1988, coinciding with the heavily advertised flotation of a number of public utilities, including British Telecom (1984) and British Gas (1986). Also around this time, the Conservative government introduced a further measure aimed at promoting a 'share-owning democracy' — namely, tax-favoured employee share schemes. Three of these

— profit-sharing schemes, savings-related share option schemes and discretionary share option schemes — were introduced between 1979 and 1984.

A large part of the growth in share ownership can be directly attributed to people buying shares in the newly privatised industries. This continues to be reflected in the fact that, even by the late 1990s, a large number of share-owners own shares only in denationalised industries (see Table 7). However, the growth in share ownership was not simply a one-off occurrence linked to privatisation. In the first place the experience of privatisation is likely to have knock-on effects. Both the extensive advertising of the share flotations and people's experience of buying shares in privatised companies (and getting high returns) is likely to have promoted greater awareness of the opportunities for investing in stocks and shares. Also, since the late 1980s, opportunities for investing in tax-free Personal Equity Plans and, more recently, Individual Savings Accounts (see below) and de-mutualisations of building societies are likely to have sustained the increase in share ownership among younger cohorts.

Table 7 summarizes direct equity holdings in 1997-98 according to the type of shares that people have using data from the 1997-98 FRS. It highlights the importance of the process of denationalisation (and de-mutualisation) in accounting for high levels of share-ownership in the UK. In total, 17% of the population own shares in a denationalised industry or a de-mutualised building society, and more than one-third of all shareowners only hold shares in this form. Share-ownership resulting from building society de-mutualisations has been a relatively recent phenomenon. The first de-mutualisation occurred in 1989 – in other words after the big increase in share-ownership in the mid-1980s. The very largest building society (Halifax) converted to a bank as recently as 1997. The 1997 wave of the British Household Panel Survey

collected information on whether anyone had received a conversion share windfall in the twelve months prior to September 1997. In total one quarter of the sample reported that they had received shares over this period. Of course, not everyone who received a windfall kept the shares, but only 17 per cent of those who received a windfall said that they spent it (and therefore will definitely have cashed in their shares). A further 15 per cent said that they saved some and spent some, while the remaining 68% said that they saved it all (although even this group may not have held on to the shares but saved the proceeds from cashing in their shares).

The cohort profiles plotted in Figure 2 show very clearly the massive increase in share ownership that occurred during the 1980s and which affected all cohorts at the same point in time (but at different ages). The cohort born between 1944 and 1948, for example, experienced an increase in share ownership from 6 per cent in 1984 (when their average age was 38) to 28 per cent in 1988. The cohort born between 1954 and 1958 experienced a big rise in share ownership between average ages 28 and 32, from 4 per cent to 17 per cent over the same period. An older cohort, born between 1934 and 1938, experienced an increase from 8 per cent to 28 per cent between ages 48 and 52 on average. What the cohort profiles also show is that the very youngest cohorts — those who were too young to experience privatisation first-hand — have levels of share-ownership that are higher than those of older cohorts at the same age.

As a result of the increase in share-ownership the profile of a typical shareholder has changed over time. In particular, the average age of heads of households owning stocks and shares fell from 56.5 in 1978 to 51.7 in 1996 (while the average age of all household heads has not changed significantly). Also, the proportion of share-owners with higher education has fallen. In 1978, 63.7 per cent of

households with shares had a head with post-compulsory education, compared with 33.5 per cent of all households. By 1988, the proportion of share-owning households with heads with post-compulsory education had fallen to 61.7 per cent, while the proportion of all household heads with post-compulsory education had actually increased to 41.3 per cent. However, while the differentials in share ownership between age and education groups have fallen, multivariate analysis shows that the differential effect of income actually increased over the period as a whole. These findings fit the conclusions of Haliassos and Bertaut (1995) in their analysis of low levels of share ownership in the US. They attribute relatively low levels of share ownership, given the size of returns, to a lack of information. They conclude that an increase in share ownership may be brought about by extensive initial advertising plus a continuous flow of information, but that this may not be effective in drawing stockholders from lower income groups. This is exactly what happened in the UK during the 1980s. Extensive initial advertising at the time of privatisation resulted in higher levels of share ownership, which have since been sustained by PEPs, ISAs and de-mutualisations. Levels of share ownership grew most rapidly among younger and less well-educated households, but share owners were still predominantly drawn from those at the top of the income distribution. Only in very recent years has there been any increase in share-ownership among poorer households as a result of building society de-mutualisations.

In spite of share-ownership now being far more common than twenty years ago, qualitative evidence suggests a view that owning shares is not a serious form of investment for 'ordinary people'.[24] In focus group discussions we have found that people tend to talk about investments they may have made in the stock market in a

relatively light-hearted way, almost as a bit of a 'flutter'. One woman refers to her husband 'dabbling' in the stock market; another says that he has done it for 'a bit of a laugh'; another that he 'played about with shares'. Perhaps something about the perceived volatility of the stock market makes it seem a bit of gamble. But there also seems to be a perception that they are tiny fish in a very big pond when it comes to investing in stocks and shares.

IV.2 Tax and savings

There have been several tax-free savings schemes introduced over the past twenty years with the intention of promoting saving, while successive reforms have changed the tax treatment of individual assets. The result is a tax system which is quite complicated with regard to savings and which taxes different assets in different ways. Table 8 presents a summary of the current tax treatment of different assets according to whether tax is imposed on contributions, returns or withdrawals.

IV.2.1 Interest-bearing accounts and stocks and shares

The form of saving with the least favourable tax treatment is money held in an interest-bearing account. Not only is the income paid into such an account taxed at the marginal rate but also the full amount of nominal interest income – at either 20% if the individual is a lower- or basic-rate tax-payer or 40% if the individual is a higher rate tax-payer.[25] In the case of direct holdings of stocks and shares, both the contributions and returns are also subject to tax, although tax is only payable on capital gains greater than an annual allowance (currently £7,100).

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[24] See Banks and Tanner (1999b) for further information.
[25] Note that the rate of tax on interest income is not the basic marginal rate of tax, but was set at the lower, 20% rate of tax which existed between 1992 and 1999. Since tax is taken off at source, the lower rate was imposed so that lower rate tax-payers would not have to claim back the difference between the

An exception to this treatment of cash and equity is given by specially designated tax-free savings schemes – before 1999 a Personal Equity Plan (PEP) or a Tax-Exempt Special Savings Account (TESSA) or after 1999 an Individual Savings Account (ISA). All three receive the same – pre-paid expenditure – tax treatment. In other words, payments into the scheme are taxed but returns and withdrawals are tax-free.

i) PEPs were introduced in 1987. They provided tax relief for limited direct and indirect holdings of equity (up to £6,000 a year in a general PEP and £3,600 in a single company PEP). The total amount of money held in PEPs by April 1999 (after which no new PEPs could be taken out) was £58.6 billion[26] and they were held by more than one in 10 individuals.

ii) TESSAs were introduced in 1991. They provided tax relief for interest income on funds held in designated bank and building society accounts, provided that the capital remained untouched for five years. Savers could invest up to £9,000 over the five years — £3,000 during the first year and £1,800 in each of the four subsequent years, up to the maximum. Approximately 2 million TESSAs were opened during the first three months that they were available. By March 1999, the total amount invested in TESSAs was just over £30 billion held in 5.7 million accounts.[27]

iii) ISAs replaced TESSAs and PEPs from April 1999. They provide a single tax-free savings vehicle for holdings of cash, life insurance and stocks and shares. They are subject to an overall annual investment limit of £5,000 (£7,000 in the first year) with separate limits of £1,000 on the amount that can be invested in life insurance and £1,000 (£3,000 in the first year) on the amount that can be invested in

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basic rate and the lower rate. However, from 1999 a new lower rate of 10% was set. Lower rate tax-payers can claim back the difference between this lower rate and 20%.

[26]Source: Association of Unit Trusts and Investment Funds press release, 28 June 1999.

cash. This is a lower amount than could have been invested in a TESSA and PEP Also, the rate of the dividend tax credit has been reduced from 20 per cent in a PEP to 10 per cent in an ISA making the total value of the tax relief less generous. However, ISAs offer an opportunity for tax-free saving to people who do not want to hold equity or tie their money up for five years – typically poorer savers.

Clearly, higher-rate tax-payers have the biggest incentive to hold TESSAs and PEPs rather than ordinary interest-bearing accounts or direct holdings of equity. Table 9 shows that they are much more likely to own TESSAs and PEPs than basic rate tax-payers or non tax-payers. 28% of higher rate tax-payers hold PEPs only, 5% hold TESSAs only and 7% hold both a PEP and a TESSA. In fact 6% of non tax-payers also hold at least one of these tax-free savings schemes. This might reflect savings decisions made when they were tax-payers. Also, both products do offer rates of return that are competitive with similar non tax-free savings vehicles, and both have been fairly intensively advertised.

Of course, the correlation between tax status and take-up of tax-free savings schemes could simply reflect the effect of other factors such as age, income, wealth or education that are correlated with tax status. Table 10a reports the results of a probit regression of PEP ownership on tax status and these other characteristics. Being a non tax-payer reduces the probability of having a PEP by 6 percentage points (compared to being a basic rate tax-payer), while being a higher rate tax-payer increases the probability of being a PEP holder by 6 percentage points. This effect controls for age, education and total financial wealth. Table 10b contains the results for the same regressions for ownership of unit trusts and investment trusts, similar products to PEPs, but subject to tax. We do find significant effects of tax status on the probability

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[27]Source: *Inland Revenue Statistics,* 1999.

of ownership, suggesting that some of the observed effect of tax status on PEP ownership may be picking up income effects, or non-linearities in the effects of other characteristics. However, the coefficients on tax status in the regressions for ownership of unit trusts and investment trusts are far smaller than they are for PEPs, suggesting that tax status has a bigger effect for tax-free savings products, as we would expect.

IV.2.2 Housing and pensions

The current tax treatment of owner-occupied housing corresponds broadly to a pre-paid expenditure tax with the exception of the continuing presence of mortgage interest tax relief (MITR), currently paid at 10 per cent on the interest on the first £30,000 of a mortgage. The generosity of MITR has, however, been steadily eroded over the past 25 years and it is due to be abolished altogether from April 2000. In the case of pensions, contributions out of earned income receive tax relief at the individual's marginal income tax rate. No tax is due on the returns – although the payment of a dividend tax credit to equity holdings in pension funds was abolished in July 1997. In retirement (before age 75), holders of defined contribution pension schemes are required to use the accumulated fund to purchase an annuity — with the exception of one-quarter of the fund, which can be taken as a tax-free lump sum — and pay income tax on annuity income. People with defined benefit schemes can also take a tax-free lump sum worth one-and-a-half times their final salary and pay tax on their pension income.

The current tax system represents the outcome of successive reforms to the tax treatment of individual assets. The result is that saving is taxed in different ways depending on the form in which they are held, although there has been a trend in recent years towards greater uniformity (by the erosion of MITR and the introduction

of PEPs, TESSAs and ISAs). However, it is still the case that savings decisions are likely to be affected by tax system as well as underlying investment returns and preferences for liquidity. Consider an individual deciding whether to save in a private pension or an Individual Savings Account. The investment returns in ISAs and private pensions are very similar. If ISAs and pensions received the same tax treatment, the greater liquidity of ISAs would tend to make them more attractive to everyone apart from those seeking a credible long-term commitment strategy. If there were no dividend tax credit payable in an ISA and no tax-free lump sum in a pension the tax system would be neutral between the two (assuming a constant marginal tax rate). In practice, which of the two is tax-advantaged depends on whether the value of the tax-free lump sum in a pension is greater than the value of the 10 per cent dividend tax credit in an ISA. In turn, this depends on the annual rate of return. The greater the annual rate of return, the greater the value of the dividend tax credit, assuming a constant dividend pay-out ratio. In fact, for an individual intending to save money for thirty years, the 'critical' annual rate of return at which the dividend tax credit is worth more than the tax-free lump sum is around 10 per cent, which is in fact the median annualised real return to PEPs and pensions over the last five years.[28] However, this assumes that the dividend tax credit is paid for the full 30 years. In fact, the government has only guaranteed the dividend tax credit in ISAs for five years, although it is quite possible for it to be extended beyond this date. If the dividend tax credit is only paid for five years, the real rate of return at which the value of the dividend tax credit is greater than the value of the tax-free lump sum increases substantially to an implausible 93.6 per cent. Moreover, this analysis ignored the fact that if employers – rather than employees – make contributions into a private pension

[28] See Emmerson and Tanner (1999) for further details

then the contributions are not only given relief on income tax, but are also not subject to either employer's or employee's National Insurance. Since no NI is payable when income is withdrawn from a pension, this makes employer contributions to pensions a particularly tax-effective form of saving. Perhaps it is not surprising therefore that so much of total wealth in the UK is held in this form. But if the government is going to use the tax system in this way to favour particular types of saving, there should be a clear rationale for why people might otherwise choose to save a suboptimal amount in this way.

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VI TABLES

Table 1
Composition of financial wealth

	1980	1985	1990	1995
Financial assets				
Total financial assets	£273 bn	£646 bn	£1160 bn	£1973 bn
Cash, transaction and savings accounts	0.337	0.275	0.286	0.215
National savings	0.040	0.047	0.031	0.028
Bonds	0.046	0.033	0.006	0.008
Stocks	0.139	0.113	0.095	0.171
Unit trusts and investment trusts	0.010	0.015	0.014	0.028
Life and pension funds	0.348	0.450	0.506	0.494
Other	0.080	0.067	0.064	0.056
Total financial assets	1.000	1.000	1.000	1.000
Total assets				
Total assets	£717 bn	£1316 bn	£2512 bn	£3134 bn
Financial assets	0.382	0.464	0.434	0.551
Real estate wealth	0.431	0.395	0.456	0.352
Building trade, assets and land	0.079	0.055	0.041	0.029
Consumer durables	0.107	0.086	0.069	0.068
Total assets	1.000	1.000	1.000	1.000
Debt				
Mortgages	£50 bn	£122 bn	£273 bn	£378 bn
Other debts	£32 bn	£72 bn	£74 bn	£71 bn

Note Figures for financial assets are taken from the personal sector balance sheet. Figures for total assets are taken from official wealth statistics compiled by the Inland Revenue Statistics. The personal sector balance sheet includes assets of non-profit organisations and is therefore not strictly comparable with the Inland Revenue Statistics series which are computed for the household sector. This accounts for the discrepancy between total financial assets in row 1 and the product of total assets (row 10) and the share of total assets that are held in financial assets (row 11). We stick to both sources of data here because of the extra detail afforded on financial assets by the personal sector balance sheet. The breakdown of financial assets for the reconciled data is presented in a complete table calculated entirely from the Inland Revenue Series in the appendix (table A3).

Table 2(a)
Asset and debt ownership: NOP-FRS 1997-98

Proportion owning:	**1997-98**
Transactions and savings accounts	0.898
Long term notice and fixed term accounts	0.154
Government bonds	0.253
Other bonds	0.036
Stocks	0.216
Investment trusts, unit trusts etc.	0.115
Personal pensions (DC)	0.080
Occupational pensions (predominantly DB)	0.223
Life insurance policy	0.376
Housing wealth	0.598
Business wealth	0.046
Mortgage/real estate debt	0.318
Loan	0.142

Table 2(b)
Asset ownership over time – proportion of households FES 1988 – 96

	1978	1988	1990	1992	1994	1996
Savings accounts	0.544	0.652	0.611	0.670	0.632	0.604
Bonds	—[1]	0.025	0.017	0.017	0.014	0.012
Stocks	0.091	0.221	0.234	0.236	0.220	0.231
Life insurance	0.781	0.735	0.724	0.708	0.683	0.655
Pension	0.388	0.437	0.471	0.443	0.414	0.419
Housing	0.528	0.661	0.665	0.663	0.682	0.665
Mortgage	0.324	0.433	0.444	0.432	0.450	0.445

Household head aged 20-80 only

Bonds cannot be separated from stocks in 1978, and do not include National Savings products.
Savings accounts include National Savings Investment and Ordinary accounts. Ownership defined on the basis of receipt of interest income during previous 12 months.
Stocks include unit trusts and PEPs. Ownership defined on basis of receipt of dividend income during previous 12 months.
Housing includes ownership with a mortgage as well as outright ownership.
Life assurance includes fixed-term assurance, mortgage protection policies, death and burial policies, all endowment policies (including house purchase endowments) and annuities. Defined on the basis of current contributions.
Pensions include occupational and personal pensions, defined on the basis of receipt of private pension income or contributions made into an occupational or personal pension or payment of contracted-out rate of National Insurance.

Table 3
The composition of household financial assets, NOP-FRS Data

	% with	Share of total*
Instant access savings accounts	0.617	0.568
Deposit accounts	0.154	0.128
Government bonds	0.253	0.065
Other bonds	0.036	0.023
Stocks	0.216	0.131
Investment trusts, unit trusts etc.	0.115	0.084

* Mean asset share for those with positive financial wealth only

Table 4(a)
Diversification of household portfolios NOP-FRS Data
Financial Assets only

CS	PS	R	%
O	**O**	**O**	0.0950
O	**O**	**P**	0.0013
O	**P**	**O**	0.0003
O	**P**	**P**	0.0003
P	**O**	**O**	0.4990
P	**O**	**P**	0.2901
P	**P**	**O**	0.0281
P	**P**	**P**	0.0859

Table 4(b)
Diversification of household portfolios NOP-FRS Data
Financial and non-financial assets

CS	PS	R	%
O	**O**	**O**	0.0579
O	**O**	**P**	0.0008
O	**P**	**O**	0.0364
O	**P**	**P**	0.0019
P	**O**	**O**	0.1274
P	**O**	**P**	0.0388
P	**P**	**O**	0.3768
P	**P**	**P**	0.3601

Table 4(c)
Diversification of household portfolios over time, FES Data
Financial and non-financial assets

CS	PS	R	1978	1988	1990	1992	1994	1996
O	**O**	**O**	0.0607	0.0722	0.0739	0.0862	0.0964	0.1096
O	**O**	**P**	0.0044	0.0054	0.0059	0.0041	0.0057	0.0041
O	**P**	**O**	0.3495	0.2172	0.2402	0.1950	0.2144	0.2213
O	**P**	**P**	0.0360	0.0477	0.0620	0.0398	0.0456	0.0539
P	**O**	**O**	0.0240	0.0277	0.0299	0.0341	0.0372	0.0378
P	**O**	**P**	0.0044	0.0055	0.0057	0.0078	0.0052	0.0073
P	**P**	**O**	0.4229	0.3783	0.3354	0.3694	0.3561	0.3195
P	**P**	**P**	0.0981	0.2459	0.2469	0.2636	0.2393	0.2465

Table 5
The composition of household financial assets, by wealth quartile, NOP-FRS Data

	I	II	III	IV	95
Instant access savings accounts	0.793	0.811	0.414	0.255	0.234
Deposit accounts	0.026	0.038	0.181	0.265	0.228
Government bonds	0.130	0.031	0.044	0.055	0.082
Other bonds	0.001	0.002	0.017	0.075	0.088
Stocks	0.042	0.103	0.238	0.142	0.171
Investment trusts, unit trusts etc.	0.007	0.015	0.105	0.208	0.196

Table 6(a)
Importance of risky assets, NOP-FRS 1997-98

Ageband	% with risky assets	Conditional Share
<30	0.249	0.227
30-39	0.351	0.284
40-49	0.426	0.324
50-59	0.485	0.359
60-69	0.489	0.344
70+	0.415	0.264
All	0.406	0.304

Table 6(b)
Importance of risky assets, NOP-FRS 1987 – 1998

Ageband	1987/88	1991/92	1997/98
<30	0.049	0.078	0.165
30-34	0.082	0.110	0.217
35-39	0.092	0.123	0.264
40-44	0.107	0.138	0.264
45-49	0.112	0.160	0.274
50-54	0.124	0.168	0.299
55-59	0.107	0.181	0.311
60-64	0.096	0.131	0.295
65-69	0.095	0.140	0.257
70+	0.068	0.119	0.181
All	0.085	0.135	0.241

Note: 1997/98 definition narrower that Table 6(b). See Footnote 21

Table 7: Share-ownership

Equity holdings	%
No equity holdings	73.36
Denationalised/ de-mutualised shares only	10.09
Other shares only	3.35
Denationalised/de-mutualised shares and other shares	1.74
Mutual funds only	5.07
Mutual funds and denationalised/de-mutualised shares	3.44
Mutual funds and other shares	1.15
Mutual funds, denationalised/de-mutualised shares and other shares	1.80

Notes to Table:

Denationalised shares are shares held in former nationalised industries

De-mutualised shares are 'windfall' shares given to savers in building societies when these converted to banks

Other shares refer to direct holdings of equity (i.e. not in mutual funds) other than those in de-mutualised building societies or former nationalised industries.

Mutual funds include unit trusts, investment funds and Personal Equity Plans

Source FRS 1997-98

Table 8
Tax treatment of different assets

		Returns		
	Contribu-tions	Income	Capital gains	Withdrawals
Interest-bearing accounts	Taxed	Taxed	—	Exempt
Stocks and shares	Taxed	Taxed	Taxed (in excess of annual allowance)	Exempt
'Tax-free' savings schemes: ISAs, PEPs, TESSAs	Taxed	Exempt[1]	Exempt	Exempt
Owner-occupied housing	Taxed[2]	Exempt	Exempt	Exempt
Private pensions	Exempt[3]	Exempt[4]	Exempt	Taxed, except 25% tax-free lump sum

Notes to table

1. 10% tax credit repaid on dividend income

2. 10% tax relief on interest on first £30,000

3. Employee contributions are exempt from income tax, but are subject to employer's and employee's National Insurance. Employer contributions are exempt from income tax and from all National Insurance.

4. Repayment of dividend tax credit abolished in 1997

Table 9
Ownership rates of PEPs and TESSAs, by tax status

Marginal tax rate	Neither PEP nor TESSA	TESSA only	PEP only	PEP and TESSA
Basic	0.8215	0.0517	0.1014	0.0254
Higher	0.6016	0.0492	0.2774	0.0718
NonTax	0.9434	0.0209	0.0301	0.0560
Total	0.8643	0.0388	0.0781	0.0188

Source: FRS 1997-98

Table 10(a) Probit results – PEP ownership

	Marg effect	*SE*	Marg effect	*SE*	Marg effect	*SE*	Marg effect	*SE*
30-34	.0453	*.0063*	.0366	*.0058*	.0321	*.0056*	.0283	*.0053*
35-39	.0645	*.0068*	.0533	*.0063*	.0391	*.0058*	.0350	*.0055*
40-44	.0795	*.0073*	.0631	*.0066*	.0490	*.0062*	.0424	*.0058*
45-49	.0891	*.0076*	.0721	*.0070*	.0498	*.0063*	.0438	*.0059*
50-54	.1633	*.0087*	.1421	*.0083*	.0868	*.0071*	.0809	*.0068*
55-59	.1959	*.0098*	.1815	*.0095*	.1027	*.0079*	.1020	*.0078*
60-64	.1937	*.0098*	.1952	*.0098*	.0893	*.0076*	.0984	*.0078*
65-69	.1664	*.0095*	.1821	*.0098*	.0563	*.0069*	.0732	*.0073*
70+	.0618	*.0059*	.0831	*.0062*	.0013	*.0043*	.0180	*.0046*
Some higher ed	.0629	*.0027*	.0411	*.0024*	.0392	*.0025*	.0271	*.0023*
College	.1713	*.0048*	.1064	*.0042*	.1006	*.0042*	.0677	*.0037*
Non taxpayer			-.0800	*.0019*			-.0592	*.0019*
Higher rate			.1227	*.0076*			.0614	*.0062*
Total financial wealth					2.83e-06	*4.68e-08*	2.41e-06	*4.52e-08*
No. obs	76,394		76,394		76,394		76,394	
Pseudo R^2	0.0705		0.1152		0.1862		0.2076	

Source: FRS 1997-98

Table 10(b) Probit results – Unit Trust/ Investment Trust ownership

	Marg effect	*SE*	Marg effect	*SE*	Marg effect	*SE*	Marg effect	*SE*
30-34	.0187	*.0045*	.0145	*.0039*	.0124	*.0037*	.0112	*.0035*
35-39	.0332	*.0053*	.0271	*.0046*	.0192	*.0041*	.0178	*.0039*
40-44	.0466	*.0059*	.0373	*.0052*	.0290	*.0047*	.0263	*.0044*
45-49	.0460	*.0060*	.0366	*.0053*	.0252	*.0046*	.0228	*.0042*
50-54	.0808	*.0074*	.0671	*.0066*	.0381	*.0051*	.0354	*.0049*
55-59	.1010	*.0087*	.0893	*.0081*	.0469	*.0059*	.0456	*.0057*
60-64	.1151	*.0092*	.1102	*.0090*	.0521	*.0062*	.0544	*.0062*
65-69	.0948	*.0086*	.0976	*.0087*	.0316	*.0052*	.0367	*.0054*
70+	.0556	*.0053*	.0636	*.0056*	.0205	*.0036*	.0269	*.0038*
Some higher ed	.0286	*.0017*	.0185	*.0015*	.0171	*.0015*	.0121	*.0013*
College	.0962	*.0038*	.0602	*.0031*	.0530	*.0029*	.0383	*.0026*
Non taxpayer			-.0301	*.0011*			-.0212	*.0011*
Higher rate			.0345	*.0040*			.0072	*.0025*
Total financial wealth					7.97e-07	*2.06e-08*	6.81e-07	*2.00e-08*
No. obs	76,394		76,394		76,394		76,394	
Pseudo R^2	0.0757		0.1094		0.1857		0.2001	

Source: FRS 1997-98

VII APPENDIX

Table A.1
NOP-FRS selected sample sizes by survey month

	Full sample	
Month	*1997*	*1998*
Jan	4,318	4,128
Feb	4,447	4,118
Mar	4,284	4,004
Apr	4,663	4,035
May	4,395	4,212
June	4,449	3,952
July	4,491	
Aug	4,448	
Sep	4,356	
Oct	4,104	
Nov	4,103	
Dec	3,887	
Total (Jan 1997 to June 1998)		76,394

Source: 1997–98 NOP-FRS data.

Note: Sample is truncated to exclude all individuals aged 21 or under and those in full-time education.

Table A2
Distribution of wealth, 1995

	Series C Marketable wealth	*Series D* Including occupational pensions	*Series E* Including occupational and state pensions
Percentage of wealth owned by:			
Top 1%	19	14	11
Top 5%	39	31	25
Top 50%	93	89	83
Gini coefficient	67	59	49

Source: *Inland Revenue Statistics*, 1998, Stationery Office.

Table A3
Composition of financial wealth

	1980	1985	1990	1995
Financial assets				
Financial assets	£274 bn	£610 bn	£1090 bn	£1726 bn
Bank deposits and liquid assets	0.381	0.298	0.270	0.217
Government and municipal securities	0.077	0.074	0.038	0.039
Company shares	0.150	0.120	0.132	0.179
Life policies (including pensions)	0.392	0.508	0.560	0.566
Financial Assets	1.000	1.000	1.000	1.000
Total assets				
Total assets	£717 bn	£1316 bn	£2512 bn	£3134 bn
Financial assets	0.382	0.464	0.434	0.551
Real estate wealth	0.431	0.395	0.456	0.352
Building trade, assets and land	0.079	0.055	0.041	0.029
Consumer durables	0.107	0.086	0.069	0.068
Total assets	1.000	1.000	1.000	1.000
Debt				
Mortgages	£50 bn	£122 bn	£273 bn	£378 bn
Other debts	£32 bn	£72 bn	£74 bn	£71 bn

Source, Inland Revenue Statistics

Figure 1: Cohort profiles – home-ownership (FES 1978-96)

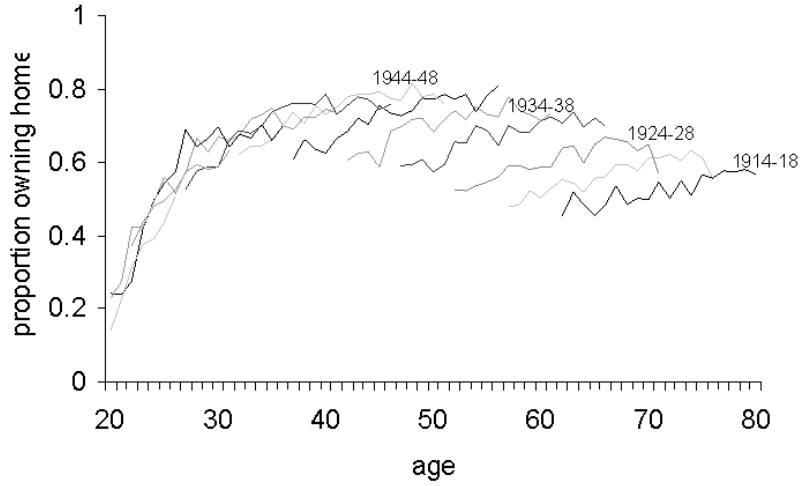

Figure 2: Cohort profiles – share-ownership (FES 1978-96)