HOUSEHOLD SAVING IN THE UK

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Summary

The gradual shift in responsibility for welfare provision, from the government to individuals, is making household saving and wealth holding a key policy concern. Yet remarkably little is known about how much households save or the forms in which they save. Unlike income or expenditure, there is no official individual or household survey collecting detailed information on saving and wealth holdings on an ongoing basis. This has limited the possible analysis of how saving responds to the incentives created by policy changes.

This report reviews the economics of household saving, the taxation of financial assets in the UK and official sources of information on saving and wealth. It also provides new information on trends in asset holding in the household population over the period 1978–96 and a detailed description of asset and wealth holdings in 1997–98.

The following are among the key results and findings in this report:

- The most recent figures show that total wealth in the UK amounted to £2,720 billion, of which around one-quarter was held in the form of liquid financial assets. The rest was held mainly in housing, pensions and life insurance.
- Over the last 30 years, the concentration of wealth at the top of the distribution has been reducing due to rising ownership of housing and pension wealth. But the proportion of wealth owned by the bottom half of the wealth distribution has only risen slightly.

- Some inequality in the distribution of wealth is to be expected, given economic theories of the way households accumulate wealth over their life cycle.
- The 1980s were a period of dramatic change in wealth holdings. In particular, there was a spread in ownership of key assets such as housing, pensions and stocks and shares. The only asset less commonly held now than 20 years ago is life insurance.
- In spite of the proliferation of new savings vehicles, the majority of people still hold the majority of their wealth in conventional forms such as interest-bearing accounts at the bank or building society.
- Most individuals do not typically hold large amounts of financial wealth, and around one-third have no interest-bearing financial assets at all. The median level of wealth held in financial assets (banks, building societies, stocks and shares and mutual funds) is £750. This represents relatively little resources with which to cushion the effects of unanticipated changes in income or spending needs.
- Tax-privileged savings vehicles have been taken up relatively widely, but are held predominantly by wealthier households. The median wealth of TESSA and PEP holders is around 20 times that of the population at large.
- Almost one-tenth of the population have no assets at all and this proportion has been increasing over time. Some of these are young individuals or households whom one might not expect to be saving. But there are also substantial levels of financial exclusion amongst middle-aged and older groups.

CHAPTER 1
Introduction

> *I propose to introduce a wholly new tax incentive which will reward saving and encourage people to build up a stock of capital.*
>
> John Major, Chancellor of the Exchequer,
> Budget Speech 1990

> *When half the population have only £200 or less in savings, there is broad agreement that we must do more to encourage savings by everyone.*
>
> Gordon Brown, Chancellor of the Exchequer,
> Budget Speech 1998

Current and past UK governments have expressed concern that the level of household saving is too low. A number of reforms have been implemented, most often in the form of tax incentives for particular savings products, to address this perceived problem. The last few years have seen the introduction of Personal Equity Plans (PEPs, 1987), Personal Private Pensions (1988), Tax-Exempt Special Savings Accounts (TESSAs, 1991) and Individual Savings Accounts (ISAs, 1999), all designed to promote saving.[1] This report seeks to inform the ongoing debate on saving by providing a detailed empirical analysis of current levels of wealth held by UK households and documenting recent trends in ownership of the key assets — housing, shares, interest-bearing accounts, pensions and life assurance.

[1]Although the tax treatment of housing and life assurance has become less favourable in recent years.

First, a few definitional issues. Many people, when they talk about how rich or how wealthy an individual is, are actually referring to their income — that is, the flow of money they receive in a given period. In this report, wealth refers specifically to a stock of resources (held in different forms such as stocks and shares, housing or a pension) that individuals have accumulated in the past. Of course, income and wealth are linked in a number of ways. A stock of wealth accumulated in the past gives rise to a flow of income today in the form of interest and dividend payments.[2] Also, wealth must be accumulated out of past income through saving — the flow of resources allocated to wealth accumulation each time period.[3] If there were no possibility for saving and hence no wealth, individuals would simply have to spend their current income. When their incomes were high, they would spend a lot; when their incomes fell, they would have to cut their spending. Saving is the mechanism that allows people to defer part of their consumption today in favour of consumption tomorrow, where tomorrow could be next week, next year, retirement or even (in the case of saving for bequests) after death.

The decision to save may be driven by a wide range of motivations; Browning and Lusardi (1996), drawing heavily on Keynes, identify nine possible influences on the decision to save:

- the *precautionary motive* — to build up a reserve against unforeseen contingencies;

[2]Some forms of wealth, such as housing, also generate a flow of consumption benefits that would otherwise need to be paid for out of current income.

[3]Throughout this report, we use the term *savings* to refer to the stock of accumulated wealth, and *saving* to refer to additional resources accumulated each period.

- the *life-cycle motive* — to provide for an anticipated future relationship between the income and needs of the individual;
- the *intertemporal substitution motive* — to enjoy interest and appreciation;
- the *improvement motive* — to enjoy a gradually increasing expenditure;
- the *independence motive* — to enjoy a sense of independence and the power to do things, without a clear idea, or definite intention, of specific action;
- the *enterprise motive* — to secure the *masse de manœuvre* to carry out speculative business projects;
- the *bequest motive* — to bequeath a fortune;
- the *avarice motive* — to satisfy pure miserliness; and
- the *down-payment motive* — to accumulate deposits to buy cars, houses and other durables.

The first thing to note is that this list maps out a very broad definition of saving. 'Saving' encompasses an individual's decision to put money in a pension (the life-cycle motive), to take out insurance against unemployment or ill health (the precautionary motive), to put money into a savings account for a holiday or washing machine (the down-payment motive) as well as to speculate on the stock market (the intertemporal substitution motive).

In the past, one problem in looking at saving and wealth has been a lack of good information. The Inland Revenue uses the information on estates it collects from returns for inheritance tax to construct measures of the distribution of wealth. This source of information is described in more detail in Chapter 2. It provides evidence on the total amount of wealth held by all individuals — £2,720 billion in 1995 (the last year for which figures are available), or more than four times

total GDP in that year. It also shows how wealth is distributed (or not distributed) across the population: in 1995, the wealthiest 1 per cent of individuals owned nearly one-fifth of all wealth, while the wealthiest 50 per cent of the population owned 92 per cent of wealth. However, the published Inland Revenue figures say a lot about the way the majority of wealth is distributed, but much less about the wealth holdings of the majority of the population, and nothing at all about how the distribution of wealth varies according to characteristics such as age and income. This report intends to redress the balance by presenting evidence on saving and wealth from household and individual surveys. These surveys are unlikely to capture the very wealthiest individuals in the country — who account for a very high proportion of total wealth. We therefore do not look at aggregate wealth in detail. Instead, we are interested mainly in the wealth holdings of the majority of households and individuals.

We motivate our analysis by considering some of the key predictions from economic models of household consumption and saving behaviour. The standard model, described in Chapter 3, is the life-cycle model. The essence of this model is that individuals will smooth consumption across their lifetimes, building up wealth to allow them to maintain consumption when their income falls (and borrowing in anticipation of rising incomes in the future). However, within the context of this model, there are a number of factors that will affect choices about saving, including uncertainty over future resources, expected future rates of return, household formation decisions, bequests and *inter vivos* transfers, and the level of welfare provision. More recent behavioural theories of saving have emphasised the importance of information and the role of self-control and individuals' discounting of the future in decisions

about saving. As a result, it is not a straightforward issue to predict how much individuals 'should' be saving at any one point in time without having information on these other factors. Nevertheless, we draw out two clear implications of the model as crucial to interpreting the evidence presented later and in thinking about government policy designed to encourage saving. First, the life-cycle model is consistent with substantial inequality in saving and wealth, particularly across age groups. Second, a priori, a change in the real post-tax rate of return will have an ambiguous effect on the level of saving. Also in Chapter 3, we discuss models of portfolio choice and their predictions for the form in which individuals will choose to hold their wealth.

This report presents new evidence on household and individual wealth using data from two surveys — the Family Expenditure Survey and the NOP Financial Research Survey. Much of what is presented in Chapters 4 and 5 is simple descriptive analysis, largely because this information is currently missing on saving and wealth (compared with income and consumption, for example). We cannot begin to answer the question of whether households are saving enough before we know more about how much households are currently saving and how this varies with their income and other characteristics. The evidence we present is intended to shed light on these issues.

We use data from 19 years of the Family Expenditure Survey to document changes in asset ownership since 1978. The 1980s saw a number of government policies targeted at promoting ownership of stocks and shares, housing and private pensions. We show what effect these policies had on levels of ownership of these assets across all households, and look at which groups in the population experienced the biggest changes. We also

show that, in spite of more widespread home ownership and share ownership, the bottom of the wealth distribution has a growing number of households with no wealth at all.

Using data from the NOP Financial Research Survey, we present a detailed analysis of the current distribution of wealth across individuals. We show how much (or, rather, how little) financial wealth people typically have and how levels of wealth vary according to key characteristics such as age, income and education. We look at holdings of particular assets, such as interest-bearing accounts and stocks and shares, and at how much of their wealth people choose to hold in these different forms.

Finally, in Chapter 6, we consider the taxation of saving. We discuss the ways in which saving in different assets is taxed and show that the tax system has a substantial effect on the post-tax return to saving. Even if it does not affect the overall level of saving, it is likely to affect the form in which people choose to save. Using targeted tax incentives has become a common way for governments to try to promote saving by individuals. However, governments should be clear about why the tax system should be used to encourage people to save in particular forms when the underlying rates of return (together with individuals' preferences for risk and liquidity) would lead people to choose a different portfolio allocation. The link between tax incentives and increased saving is unclear — the life-cycle model has no clear prediction about the effect of the rate of return on the level of saving, although more recent behavioural theories suggest indirect routes through which targeted tax incentives might promote saving (through greater information and through the 'non-fungibility' of different types of assets).

CHAPTER 2
Official Information on Saving in the UK

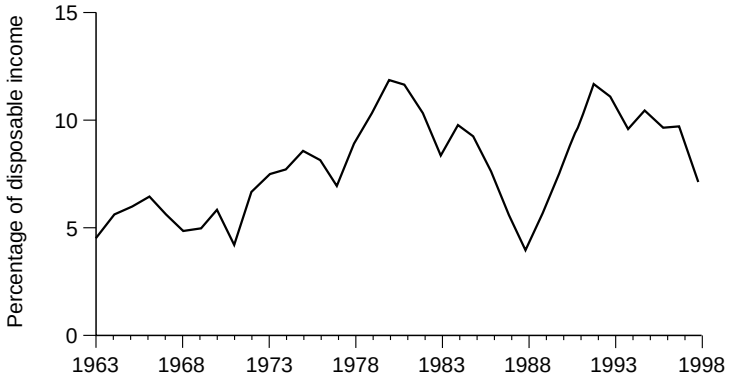
This chapter discusses publicly available information on saving and wealth in the UK. At the aggregate level, information in the National Accounts on personal sector incomes and expenditures yields a measure of the flow of savings, while the Inland Revenue statistics contain information on the distribution of stocks of wealth.

2.1 The Saving Rate

There are two types of information about saving and wealth. One is about the flows of saving, i.e. how much people currently save out of their income. The second is about the stock of savings, or wealth, that people have accumulated through past saving. Using information on the total income and the total spending of the personal sector from the National Accounts to calculate an aggregate personal sector saving rate can tell us something about the former. The personal sector saving rate is plotted for the period 1963–98 in Figure 2.1. It measures the proportion of total disposable income that is saved rather than spent each year. On average during this time, the personal sector saved just over 7.75 per cent of its total disposable income each year. The highest saving rate in any one year was 11.7 per cent in 1980, while the lowest was 3.9 per cent in 1988. The personal sector saving rate is not a perfect measure of household saving. For example, the personal sector includes unincorporated businesses. There are also definitional issues, such as the treatment of insurance

FIGURE 2.1

Personal sector saving rate



Notes: Personal sector saving as a percentage of total resources, which is the sum of gross personal disposable income and the adjustment for the change in net equity of the personal sector in pension funds.

Source: *Economic Trends Annual Supplement*, 1998, Stationery Office.

premiums, which may be seen as a form of precautionary saving but are in fact classed as expenditure.

More fundamentally, it is not entirely clear what implications should be drawn from looking at the personal sector saving rate.[4] Should policymakers be concerned when the personal sector saving rate falls, as it did at the end of the 1980s and as it is doing now? As discussed in more detail in Chapter 3, from a macroeconomic perspective, concern over the rate of saving stems from the fact that savings provide the necessary funds for investment to occur. However, even in a closed economy, it is not just saving by the personal sector that matters for a flow of investment funds, but

[4]Of course, the saving rate provides an indication of what is happening to the level of consumer demand, which may be relevant to expectations of inflation, amongst other things.

also saving by the government and the corporate sector. In an open economy such as the UK, international capital flows — not just domestic saving — provide funds for investment. So it is the saving rates of other countries, as well as of the UK, that matter.

From a microeconomic perspective, the concern with a falling personal sector saving rate might be that individuals are not saving enough — to provide for themselves in retirement, for example. In this case, an aggregate measure such as the personal sector saving rate may be relatively uninformative about what is happening to the saving behaviour of most individual households. An aggregate measure will give most weight to the behaviour of the richest households simply as a result of them having a bigger share of total income. Also, a fall in the personal sector saving rate could be the result of changes in the demographic composition of households rather than any underlying behavioural change. For example, an increase in the number of retired people, who are typically net dis-savers, would tend to push down the personal sector saving rate. Rather than looking at an aggregate measure, it may be more useful to look at what has happened over time to the saving rates of different types of households.

Even then, a fall in the rate of saving may be consistent with rational behaviour. In the life-cycle model of consumption and saving, discussed in Chapter 3, there are several key factors that affect saving behaviour, including expected future income, rates of return, age and household demographics. A change in any one of these factors could result in a change in the saving rate. It is therefore important to know the underlying reason for the fall in saving. Muellbauer and Murphy (1990) argued that the cause of the fall in the saving rate in the late 1980s was a consumption boom

fuelled by people borrowing against rising house prices, which in turn were driven by distortions in the housing market. In other words, the growth in consumption was excessive and the fall in saving rate was suboptimal. King (1990) and Pagano (1990) argued that the consumption boom was the result of increased expected future incomes and was entirely consistent with rational, optimising consumer behaviour. This would imply that the fall in saving rate was not a matter for policy concern. Attanasio and Weber (1994) presented evidence that supported this latter view. They found that the consumption boom was greatest among younger cohorts for whom an increase in expected future incomes would translate into a greater increase in anticipated lifetime resources. This difference between younger and older cohorts could not be explained by differences in home-ownership rates.

Finally, the rate of saving out of current income is only part of the story. We also want to know about accumulated stocks of wealth and the way that their value changes over time. A true measure of saving out of current resources should include that part of any capital gain that is not consumed. This is particularly relevant since increases in the value of existing stocks of wealth, through rising share prices or house prices, could be one reason why the saving rate, measured out of current disposable income, falls or remains low — an explanation currently being put forward in the US. According to the life-cycle model, increasing current consumption (and hence reducing measures of saving out of current income) is a rational response to an unexpected rise in the value of existing wealth which means an increase in individuals' total lifetime resources.

2.2 Stocks of Wealth

Information on the stock of wealth held by the personal sector is collated by the Inland Revenue from the returns individuals have to make for the purposes of taxing wealth. Unlike income, however, individuals do not have to reveal their entire wealth for tax purposes every year, only when they die. Estimates of personal wealth are constructed from inheritance tax returns using the 'mortality multiplier method'.[5] The estates of those who die each year are grossed up to form an estimate of the wealth of the total population by multiplying each estate by a factor that is, effectively, the inverse of the mortality rate. Clearly, those who die are a non-random group of the population and hence adjustments are made to correct differential mortality by age, gender, marital status and social class. Davies and Shorrocks (1999) argue that those who die are likely to have been in poor health prior to death and been incapable of work and/or incurred larger-than-average expenditures for health and nursing care. For these reasons, the wealth of people who have died may be a poor guide to the wealth of the living, although it is difficult to assess the magnitude of these effects.

Adjustments are made to the initial estimate from the estates information to correct for under-recording and valuation in the estates that are reported and to correct for the fact that not all estates are liable for death duty. Excluded are estates that are too small in total value (currently less than £231,000) and estates passing directly to the surviving spouse. The problem is compounded by the fact that many individuals transfer their wealth before they die in order to reduce their inheritors' tax liabilities. Of course, such transfers

[5]See Good (1980) and Atkinson and Harrison (1978) for further discussion.

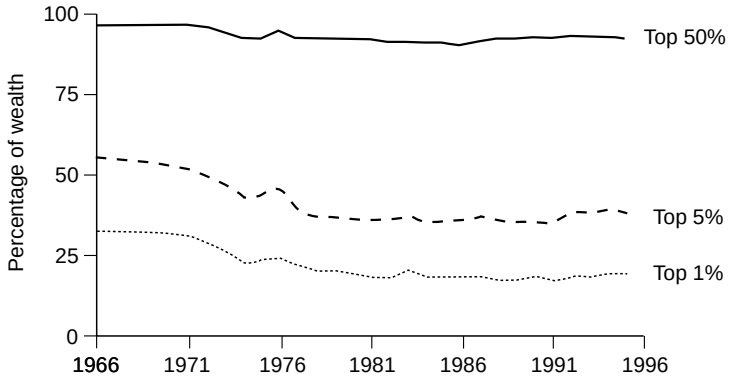
reduce the size of the tax burden, not the amount of total wealth. This wealth will be picked up in the official estimates to the extent that the recipients of transfers themselves die. But it means that the estimate of total wealth may depend on the very small number of estates of those who die without making transfers. The problem is that the smaller the number of estates on which the estimates of wealth are based, the more unreliable the estimates of total wealth. The adjusted estimates from estates are then reconciled against information from the balance sheets of the financial sector.

Total personal wealth was estimated to be £2,720 billion in 1995 (the latest year for which figures are available) — nearly four times the level of GDP in that year. This represents the value of the stock of individuals' marketable assets less any amounts due for debts and mortgages. These assets include land and buildings, stocks and shares, trade assets and shares in partnerships, bank and building society deposits, cash, life assurance policies, and cars and other durable goods. The value of occupational and state pensions, however, is not included. This figure for total personal wealth implies a mean level of wealth across the entire adult population of more than £60,000. However, total wealth is distributed unevenly across the adult population. In fact, in 1995, 75 per cent of the adult population were estimated to have £50,000 or under, while 25 per cent of the adult population were estimated to have £5,000 or under.

Figure 2.2 plots the concentration of wealth since 1966. Each line represents the proportion of total wealth held by different percentiles of the wealth distribution — the top 1 per cent, the top 5 per cent and the top 50 per cent. The graph confirms the extent of concentration

FIGURE 2.2

Concentration of personal wealth in the UK



Notes: The measure of wealth is the value of the stock of individuals' marketable assets less any amounts due for debts and mortgages. The value of occupational and state pensions is not included since the series is not available over the period.

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

of total wealth: in 1995, the wealthiest 1 per cent of the population owned nearly one-fifth of all wealth while the top 50 per cent of the wealth distribution owned 92 per cent of all wealth. For comparison, the top 50 per cent of the income distribution accounted for 73 per cent of all income in 1991–93.[6] This is a common finding on the distribution of wealth in developed countries. Gini coefficients[7] for such countries range between 0.3 and 0.4 for income and between 0.5 and 0.9 for wealth. The Gini coefficient for the distribution of personal wealth in the UK in 1995 was 0.66.[8]

However, the Inland Revenue statistics show that the distribution of wealth in the UK has been getting less concentrated over the past 30 years. The share of all

[6]See Goodman, Johnson and Webb (1997).

[7]A measure of the inequality in a distribution, ranging between 0 (no inequality) and 1 (all resources are owned by one individual).

[8]See Davies and Shorrocks (1999).

wealth held by the top 1 per cent has fallen from 33 per cent in 1966 to 19 per cent in 1995, while the share held by the top 50 per cent was 97 per cent in 1966 compared with 92 per cent in 1995. Most of the reduction in inequality occurred during the 1960s and 1970s. Again, a trend to greater equality in the distribution of wealth is a common finding across developed countries. However, it has been reversed in the US since the 1970s, taking the current wealth share of the top 1 per cent back to the level observed in the 1930s. Rapid increases in share prices are thought to be one possible explanation.

The Inland Revenue statistics offer two further measures of personal sector wealth. 'Series D' includes an estimate of the value of occupational pensions, while 'Series E' additionally includes an estimate of the value of state pensions. The effect of including pension wealth is to reduce measured inequality in the distribution of wealth, as we would expect (see Table 2.1). Pensions represent an important, and often the only, asset for many people. This brings us to one of the fundamental problems with the official wealth statistics. They tell us a lot about the way the majority of wealth is distributed (or not distributed) across the population, but almost

TABLE 2.1

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:	19	14	11
Top 1%			
Top 5%	39	31	25
Top 50%	93	89	83
Gini coefficient	67	59	49

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

nothing about the distribution of wealth among the majority. They also tell us very little about the way the distribution of wealth varies according to characteristics such as age or income. For this, we need to look at more detailed household and individual surveys that contain information on saving and wealth. This will be the focus of Chapters 4 and 5.

As well as giving information on the distribution of total wealth, the Inland Revenue provides an estimated balance sheet with total wealth broken down into its major components. This, along with the household sector balance sheet published in *Financial Statistics*, is the main source of aggregate information on the relative importance of different asset types. However, it is also subject to the above problem in that wealth inequality is such that the average portfolio will, to a very large extent, be determined by relatively few high-wealth households.

The most recent reconciled balance sheet available (for 1994) is presented in Table 2.2, which shows that the large majority of wealth is held in the form of physical assets (dwellings, consumer durables, land and business assets) and funded pensions (life policies plus a

TABLE 2.2

Aggregate personal wealth, 1994

Assets	*£bn*	*Liabilities*	*£bn*
Dwellings	1,096	Mortgages	362
Buildings, trade assets and land	96	Other debt	78
Consumer durables	205		
Bank deposits and liquid assets	364		
Government and municipal securities	61		
Company shares	301		
Life policies	386		
Other assets	564		
Total	3,072	Total	441

Source: Table 13.2, *Inland Revenue Statistics*, 1998, Stationery Office.

large component of 'other' assets). Of the remaining assets, which we call financial assets for the analysis in later chapters and which account for around one-quarter of total wealth, roughly half is held in bank deposits and liquid assets, with the other half being held in stocks, shares and other investments, including government bonds. Without access to the data that underpin these balance sheets (and the inequality calculations in Table 2.1), it is not possible to compute inequality statistics for financial wealth separately.

These figures, although the most recent available, are now somewhat out of date. The relative size of portfolio items may have changed as a result of differential inflows and outflows, not to mention capital gains, across portfolio categories. Some idea of these changes can be obtained from *Financial Statistics* (ONS, 1999, Table 12.1N), which presents the financial balance sheet for 'households and non-profit institutions serving the household sector'. Figures for this sector are not strictly comparable to the Inland Revenue statistics, and the wealth categories are not identical, but the definitions are similar enough for some information to be gained on the size of recent changes. The financial balance sheet for the household sector shows a 30 per cent nominal increase in the value of currency and deposits over the period 1994–98, from £437 billion to £571 billion. On the other hand, shares rose by 68 per cent (£331 billion to £555 billion) and life insurance and pensions, in aggregate, rose by 75 per cent in nominal terms (from £842 billion to £1,477 billion), presumably both as a result of increasing PEP and pension contributions and increasing equity values. These trends suggest that, if anything, non-pension financial wealth is now a slightly smaller part of the wealth portfolio (and, within it, equity probably makes up a larger fraction) than Table 2.2 would suggest.

CHAPTER 3
Economic Issues in the Analysis of Household Saving

In this chapter, we discuss issues in the economics of household saving and review recent applied economic research on consumption and saving behaviour in the UK. We give simple predictions from an economic model of consumption and saving which provide a framework for interpreting the evidence on household saving and wealth presented in later chapters.

Our purpose in this report is not to provide (another) text surveying economic approaches to modelling individual or household saving.[9] Instead, we provide a broad set of empirical evidence on household saving in the UK. But as a framework for interpreting this evidence and, in particular, in considering what policy implications to draw, we present some of the issues and hypotheses raised by economists' modelling of consumption and saving behaviour. Some are well established. Others are more controversial, in the sense that supporting empirical evidence is mixed. Yet all provide important insights in framing and interpreting the empirical analysis in the chapters that follow.

We start by considering how much an economy, or a household, should save. We show what insights conventional economic models shed on this key policy question, and argue that the answer depends on a number of key factors, including uncertainty about the future, household demographics and labour supply as well as the level of provision by the welfare state. Then

[9]Interested readers are referred to Deaton (1992) or Browning and Lusardi (1996) for good examples of such surveys.

we consider not how much, but *how*, a household should save and discuss theoretical developments that have acknowledged the role of risk and uncertainty in individual asset-holding decisions. We also look at recent 'behavioural models' of household saving decisions that have considered the importance of self-control and the 'fungibility' of different assets. Finally, we summarise some of the main findings of recent applied economic research that has addressed these issues using UK household surveys.

3.1 How Much Should We Save?

The issue of how much of current income an economy, or an individual, should consume today and how much should be saved has been one of the longest running in economic research. From a macroeconomic perspective, greater saving is often advocated as a way of improving economic performance. Insufficient saving will, it is argued, put a brake on the level of the capital stock, and thus constrain the rate of economic growth. While the level of domestic saving is traditionally said to determine the available funds for investment (and hence the cost of investment) in a closed economy, its role in a small, increasingly open economy such as the UK is far less clear. More recent theories of economic growth have stressed a role for domestic saving in raising long-run growth rates through less direct effects. One example is the argument that motivation, incentives and, ultimately, economic performance will be enhanced if more people have a direct stake in the performance of the economy through the holding of assets. These arguments may lie behind government intervention to encourage so-called popular capitalism or, more recently, stake holding, but may have more to say about the type of assets that people should be encouraged to

hold, rather than the level of saving. However, our focus is not on the macroeconomic perspectives of saving. Aggregate saving includes important components from the non-household sectors which we will not model. And inequality in personal sector saving and wealth holding is such that aggregate issues will be dominated by relatively few individuals.[10] Instead, we focus on individual or household saving choices where a different, although related, set of issues and questions arise.

Government intervention to stimulate private saving is often advocated on the grounds of simple paternalism — that, if left to behave in accordance with their own preferences during their working lives, individuals would save less than is optimal, for their retirement for example. Whether this is true and, if so, quite why it might be the case is a puzzle, as discussed briefly below. It is hard to believe that financial markets constrain people's saving, particularly since the recent liberalisation of financial markets has increased the availability of vehicles for saving (and made it easier for people to borrow). However, insufficient information, about either opportunities or the need for saving, is one possible market failure that could mean people do not save as much as they would if they were fully informed. The issue of how much, and what kind of, information to provide is one that is likely to become increasingly important as individuals are required to take more responsibility for their own pension provision.

A related argument is that people might choose to rely on social security benefits rather than providing for themselves. All benefits are likely to reduce the need for people to save for themselves. In addition, if these

[10]These individuals are also unlikely to appear in household surveys such as the ones used in later chapters of this report.

benefits are means tested, they may be withdrawn for households with high income or assets, acting as a particular disincentive to households with income and assets around the threshold limits. The withdrawal of the welfare state places a greater burden on individuals to save for their retirement, but also potentially increases the disincentive effects of means-tested benefits. The withdrawal of the welfare state also focuses attention on the related issues of how much people ought to be saving and whether they are saving enough. In economic theory, the main framework for considering individuals' consumption and saving choices is the life-cycle model.

The life-cycle model

The dominant economic model of individual choices about consumption and saving is referred to as the life-cycle model and is rooted in the work of Duesenberry (1949), Friedman (1957) and subsequently Hall (1978). Early incarnations (often called the 'stripped-down' life-cycle model or permanent income hypothesis) are still useful for understanding the mechanics of intertemporal choices, but extensions and modifications have been added to make the model appropriate to analysing household or individual data on spending and consumption choices. We begin by discussing the most straightforward case — the permanent income hypothesis — before addressing some relevant extensions.

At the heart of the model is a simple optimality condition for distributing a finite amount of (expected) lifetime resources across consumption in different periods. The assumption of diminishing marginal utility of consumption — that the benefit from an extra unit of consumption in any single time period declines with the

level of consumption — ensures that the optimal plan is not to consume all lifetime resources in one time period, but to maintain a reasonably constant level of consumption in all periods. The mechanism for achieving this (since individuals typically do not receive their lifetime resources at a constant rate) is, of course, saving (and borrowing).

The key result from the life-cycle model is that the level of consumption is not determined by current income, but by (expected) lifetime resources, with individuals saving or borrowing to achieve the desired level of consumption today where necessary. Individuals borrow to finance a level of consumption that is higher than their current income when they expect their income to increase in the future. They save in order to finance consumption tomorrow when they expect that their income is going to fall, such as on retirement.[11] Of course, in moving resources across periods by saving, there is a cost (since individuals discount the value of consumption in the future)[12] and a benefit (since funds that are saved accrue interest) which also need to be taken into account. Another important assumption, at least in the simplest models, is that it is indeed possible for individuals to borrow (or save) enough to reach their optimal consumption plan, i.e. that there are no liquidity constraints.

Even in this simple form, the life-cycle model delivers three important predictions that carry over to more general versions of consumption-smoothing models. First, one might expect some degree of inequality in saving, whether measured in levels or as a proportion of income, and consequently even higher

[11]For a detailed exposition of the model in terms of saving as opposed to consumption, see Campbell (1987).
[12]There may also be transactions costs.

inequality in stocks of wealth, which reflect past decisions about saving. Two identical households with the same lifetime incomes but differing time paths for receiving this income, for example, ought to have the same consumption behaviour but will have different saving behaviour. The life-cycle model is therefore consistent with a substantial degree of inequality in saving and wealth across the population which may simply reflect differences between age groups — younger households, for example, will not yet have accumulated much saving. This is entirely in keeping with the predictions of the model. It is consumption, not wealth or saving, that is the relevant measure of lifetime well-being in this framework. Hence age differences in wealth or saving, which we see later in survey data, do not necessarily point to differences in welfare.

A second implication of the life-cycle model is that it is not clear whether increases in interest rates will result in higher or lower saving. Within the life-cycle model, the interest rate captures the price of consumption today relative to consumption tomorrow, since it represents the additional consumption that can be had tomorrow by postponing consumption today. When the interest rate rises, current consumption becomes more expensive relative to the future, which would lead to consumers lowering their current consumption (i.e. increasing saving). But, at the same time, the increased return will make consumers better off in a lifetime sense, since they can afford to consume more tomorrow and more today, and this will tend to raise both future and current consumption. So, whilst consumption in the future will unambiguously rise when rates of return increase, the effect on current consumption, and hence saving, depends on the relative magnitude of these two effects. We argue that this is important to bear in mind when

considering the implications of using tax incentives that change the post-tax rate of return with the intention of increasing the level of saving.

A final result of interest is that equal changes in income do not always generate equal increases in saving, depending on the degree to which the change is (perceived to be) transitory or permanent. If an increase in income is expected to persist into the future, a large fraction should be consumed and very little saved, since it implies a substantial increase in expected total lifetime resources. On the other hand, only a fraction (more precisely, the annuity value) of a transitory increase in income, or a windfall, ought to be spent (and hence a much larger proportion should be saved), since the corresponding increase in expected total lifetime resources is much smaller.

Extensions

A key feature of a dynamic model is the treatment of uncertainty about the future — in this case, uncertainty over future incomes and resources. Once one allows preferences that display some degree of risk aversion, uncertainty about future income can have important effects on saving behaviour. One implication is that it is often no longer possible to express the consumer's plan for saving as a function of their income or wealth. However, a number of studies, beginning with Blanchard and Mankiw (1988), have analysed these models formally and shown that 'precautionary saving' will take place when future income becomes uncertain, essentially because risk-averse individuals will be willing to sacrifice consumption today to ensure that consumption tomorrow is not too low. The existence of the welfare state and insurance markets (including informal transfers through family or social networks)

reduces the probability of very low consumption and hence the importance of the precautionary motive for saving, although, given the withdrawal of the welfare state, it is likely to become more relevant. Testing for the importance of these effects is difficult, partly because of the lack of a solution for the level of saving. Despite this, a number of studies (described briefly below) have looked for empirical evidence by studying the behaviour of the change in consumption over time, or by simulating the level of consumption and saving. Finally, simulation techniques have been used to show that, when one allows labour supply and consumption choices to be taken jointly, the possibility of future variations in labour supply behaviour can, to some extent, supplement precautionary saving as a way of providing for the future (see Low (1998)).

As well as uncertainty over future resources, there may be uncertainty over future needs, whether to do with children, expenditures arising from illness or changes associated with household formation and dissolution. This is important because it is not consumption that is smoothed across time periods but 'utility'. And consumption will be turned into utility at differing rates according to the characteristics of the household — for example, the number of members and their respective ages. Empirical models of household consumption and saving now allow the marginal benefit of consumption in each period to depend on the characteristics of the household in various ways, and can also deal with associated uncertainty about future demographic characteristics. What is harder to build in is an allowance for the fact that consumption and demographic choices may be taken jointly, although this is surely an important issue for future research.

Other areas of the permanent income hypothesis have been investigated and extended in further analyses of

decisions about consumption and saving. It has been shown, for example, how the optimal path of consumption would be affected by individuals wanting to leave bequests to future generations or by uncertainty about time of death.[13] The effect of anticipated bequests (with known date of death) is on the level of consumption and saving. The way in which these vary over time, or over the life cycle, is unaffected since the optimal consumption path is simply shifted down and households save more in every period. When the timing of death is certain then, in the absence of a bequest motive, the life-cycle model predicts that consumers will run down their wealth to zero at time of death. If timing of death is uncertain but there is a known maximum age of death, consumers will aim to run down their wealth to zero by this time (and will therefore begin to decumulate their wealth at a later age). However, they will tend to run down their wealth at a faster rate towards the end of their lives as the probability of surviving until the next year decreases with each additional year.

The possible existence and effects of liquidity constraints (i.e. restrictions on borrowing) have also been the focus of much attention, since it is not typically possible to borrow and lend at the same interest rates, and individuals often cannot get credit. More generally, there are well-known problems preventing the existence of a market allowing individuals to borrow against their human capital. If households are currently subject to liquidity constraints and cannot borrow as much as they want to, they will simply consume all of their current income (assuming no savings). However, the possibility of being liquidity-constrained in the future may also affect saving now. Browning and Lusardi (1996), for

[13]See Hurd (1989).

example, argue that if spending needs peak at child-rearing ages and households expect to be liquidity-constrained at these ages, then 'retirement saving' may only begin once children leave home.

This discussion of the life-cycle model has highlighted that what is 'optimal' saving behaviour will differ according to many aspects of household circumstances, tastes and income, both now and in the past and the future (and including expectations of future income and labour supply). As a result, it is not a straightforward issue to use economic models to predict how much individuals 'should' be saving at any one point in time without having additional information on these factors. However, the life-cycle model is important for highlighting a number of conclusions that should not be drawn from the evidence (inequality in wealth between age groups does not necessarily imply a difference in welfare, for example) as well as those that should.

3.2 Portfolio Choice and Asset Holding

Until now, we have been discussing 'saving' as a homogeneous item, whereas in reality there are a number of different assets that households or individuals can use to smooth consumption across time periods. These assets have differing degrees of liquidity, risk and possibly transactions costs. Models of portfolio choice typically require conditions on individuals' preferences regarding risk and uncertainty in order to deliver testable predictions about how much wealth should be held in what form. Even then, portfolio models are relatively stylised, not typically incorporating transactions costs, lock-in periods or minimum (or maximum) required investments such as exist in many, particularly tax-favoured, savings products.

Gollier (1999), in a survey of classical household portfolio theory, summarises five main results that hold under various plausible conditions on preferences. First, wealthier households should own more risky assets than the less wealthy. Second, wealthy households should invest a larger share of their portfolios in risky assets than the less wealthy. Third, households with riskier labour income or human capital should invest less in riskier assets. Fourth, households that are more likely to be liquidity-constrained in the future should invest less in risky assets. Finally, households that can invest for longer in risky assets should invest more in them.

A widely discussed issue in portfolio choice is the decision to hold shares. As the evidence presented later shows, fewer than one in four UK households currently own shares directly (although a higher number own shares indirectly through private pension schemes). This is in spite of the substantial returns to investing in shares. By the end of 1995, £100 invested in Treasury bills in 1978 would have been worth £188 in real terms. Compare this with £100 invested on the stock market, which would have been worth £630 by the end of 1995.[14] Of course, investing in the stock market carries greater risk. The variance of stock market returns was around seven-and-a-half times greater than the variance of the returns to a safe asset such as Treasury bills over the period. However, given the size of the returns to investing in the stock market, the degree of risk aversion that would 'explain' why so few people hold stocks is far greater than levels typically estimated in most empirical studies of consumer behaviour. Related, and probably more widely known, is the equity premium puzzle, which states that a single measure of risk aversion cannot simultaneously reconcile both the

[14]FTSE Top 500.

observed difference in asset returns between risky and safe assets and the observed aggregate consumption data.[15]

Low levels of share ownership contradict most economic models of portfolio allocation which predict individuals holding a diversified portfolio of different assets. Several possible explanations have been put forward, including short sales constraints, transactions costs, liquidity constraints and lack of information. King and Leape (1987 and 1998) use data from the US Survey of Consumer Finances to show that the observed age profile of assets — the average number of assets held increases with age — is consistent with the exogenous and random arrival of information on investment possibilities over time. They argue that, since age is an important predictor of share ownership, over and above total wealth, this is an indication that an increased supply of information over the life cycle is an important determinant of portfolio behaviour. Haliassos and Bertaut (1995) also use data from the US Survey of Consumer Finances to show that actual or perceived costly information about the stock market can account for individuals who hold portfolios of riskless assets but not stocks. Their conclusion is 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. As we show in Chapter 4, this seems exactly to reflect what happened in the UK during the 1980s. Extensive initial advertising at the time of the privatisation of utilities such as British Telecom and British Gas led to a big increase in share

[15]For further discussion and evidence from the US, see Kotcherlakota (1996) or Hansen and Jagannathan (1991). For evidence from the UK, see Attanasio, Banks and Tanner (1998).

ownership. This appeared to reduce the size of the education differential in share ownership, but the new share owners were still predominantly among those at the top of the income distribution. What is interesting is that, since the late 1980s, there has been no further increase in the proportion of households owning shares directly.

3.3 Behavioural Issues

Recent studies have looked in more detail at the way in which individuals might make the relatively complex planning decisions required by the life-cycle model, and the factors that will affect the formation of those plans. Three areas receiving particular attention are (a) possible use of rule-of-thumb approximations for complex intertemporal planning decisions, (b) self-control and the way individuals discount the future and (c) the 'fungibility' of different forms of saving. We deal with each briefly in turn.

Bernheim (1991 and 1993) argues that intertemporal consumption models have too many informational requirements to be solved easily. Even in the stripped-down version, they require someone to make an assessment of their expected income over their entire lifetime and to form expectations of future rates of return. In addition, individuals will have to take into account expected future labour supply and household composition, as well as the level of current and future benefits provided by the government. According to Bernheim, this is one reason why America's 'baby-boom' generation (those born between 1945 and 1960) are not saving enough for their retirement (although this itself is a controversial finding). The counter-argument to this is that one might expect individuals to develop rules of thumb (such as 'save 10 per cent of your

income') that might provide approximations to the optimal plan. Indeed, there are some circumstances in which such approximations have been shown to be very accurate (see Deaton (1992)). However, when circumstances are changing, rules of thumb can become out of date. If, for example, today's youngest adults took rules of thumb from their parents' behaviour when they were younger, large mistakes could be made in choices about saving. The delivery of state retirement income and other benefits, the demographic structure of the population, life expectancies and work patterns have all changed so much that such rules would provide a very poor guide for younger generations.

In practice, there may be some middle ground, with approximate rules for behaviour being developed as a result of a number of influences, including family and peers but also including some reflection and 'planning'. It is likely that such plans would not be fully rational in the sense of the models described above, but they might perform reasonably well, given a realistic specification of the economic environment. This is an important but difficult topic for future research, and one that models of bounded rationality are beginning to address. What seems fairly clear, however, is that an understanding of the way in which individuals or households form their plans about consumption and saving, and the information they use in forming those plans, are increasingly important inputs into policy design and analysis (see Office of Fair Trading (1997) for a further discussion). This is confirmed by a series of interesting experiments in the US in which Bernheim and co-authors have shown that employees attending a series of financial education seminars choose to save more in various forms, in particular their 401(k) pension plan, than those without access to the information (see Bernheim and Garrett (1996), Bayer, Bernheim and

Scholz (1996) and Bernheim, Garrettt and Maki (1997)).

A second area of recent research is the issue of self-control. Thaler (1990) and Laibson (1994), for example, have argued that individuals have self-control problems that invalidate the standard life-cycle models since individuals are unable to postpone consumption from today to tomorrow. As such, it may be 'optimal' for them to engage in mechanisms that commit them to saving, such as setting up regular payment methods. Indeed, it is clear that such mechanisms, although typically only partial commitment devices, do exist and are relatively widely used. However, as Browning and Lusardi (1996) point out, such strategies would ultimately ensure that something close to the life-cycle plan for consumption and saving is realised, but would affect the allocation of household savings into assets within the portfolio (particularly allocation into assets in which savings are effectively tied up). Related to this is the issue of how individuals discount the future when making their choices about consumption and saving. Laibson (1997) and Laibson, Repetto and Tobacman (1998), for example, explore the implications of individual choices where the future is discounted differently according to how far away it is (known as hyperbolic discounting). For example, today I may prefer £60 in 15 years' time to £50 in 14 years' time, but 14 years from now I may have reversed my preferences over these two, i.e. I may actually prefer £50 now to £60 in one year's time. The implication of this is that, although today I might think it optimal for me to start saving tomorrow, when tomorrow comes I will actually place a greater value on consumption rather than saving, so saving keeps being deferred.

Again, a possible solution is for people to engage in commitment mechanisms.

A third issue explored by recent behavioural theories of saving is that of the 'fungibility' of assets — the idea that the willingness to finance consumption by drawing on wealth ought to be the same, regardless of the way in which that wealth is held. In practice, Thaler (1990) has pointed out that many consumers, when questioned about their saving behaviour, appear to operate mental accounts in which certain groups of savings products are associated only with certain types of consumption or saving activities (thus people save in designated pensions for their retirement). This is interpreted as another form of voluntary self-control mechanism. It is worth noting, however, that the prediction of fungibility of wealth in different forms breaks down once one allows portfolio choice models to be more general than the classical case. In particular, transactions costs, lock-in periods or early-withdrawal penalties, liquidity constraints, the tax treatment of different savings products or even simply the existence of a precautionary saving motive all mean that one would not expect complete fungibility. Having said this, it is clear that individuals do view their wealth in particular groups or accounts, and this may affect their willingness to accumulate or run down balances.[16] What is important for policy purposes is the extent to which these accounts are correlated with genuine economic differences between assets (in liquidity, riskiness, correlation with other shocks, etc.) and how much can only be explained by such accounts being voluntary self-control mechanisms.

[16]For focus group evidence for the UK, see Banks and Tanner (1999).

3.4 Empirical Evidence

Much of the applied research into consumption and saving behaviour in the UK has evaluated economic models of consumption growth. Partly this is because, as mentioned above, it is difficult to come up with predictions about the behaviour of the level of saving from the above models. But, also, household-level data on non-durable spending in the UK are significantly better than those on saving or spending on durables and housing which would be required for evaluating economic models of saving and portfolio choice directly. Hence, estimation has typically used the many years of cross-sectional data on household spending patterns collected in the Family Expenditure Survey on a consistent basis since 1968.

Without information on the same people over time, it is not possible to look directly at whether individuals smooth their consumption. More commonly, studies have grouped data according to date of birth within each year to look at the average behaviour of cohorts of individuals over the life cycle (see Chapter 4 for further explanation of this technique). Even within this framework, however, empirical models of consumption have offered some evidence of consumption smoothing by households. In particular, the life-cycle model can fit observed cohort consumption growth paths when one controls for the effects of demographic variables (such as the number and ages of adults and children in the household, housing tenure, region of residence, etc.) and labour supply variables (of both the head and the spouse).[17]

Over the last 20 years, there has been a well-documented increase in cross-sectional income

[17]See Blundell, Browning and Meghir (1994) and Banks, Blundell and Preston (1994), for example.

inequality in the UK. Although this may be due to rises in permanent inequality or uncertainty, it has been suggested that households are now exposed to more income risk than they were, and this ought to affect saving behaviour, given the models outlined above. At the same time, and maybe as a consequence, the effects of income risk on, amongst other things, consumption growth and saving rates have become an increasingly important policy issue. Banks, Blundell and Brugiavini (1999) model the evolution of income risk and consumption growth for cohorts of the Family Expenditure Survey sample, decomposing risk into common and cohort-specific components. They find strong evidence of precautionary saving. Specifically, after allowing for demographic variables and labour market effects, there is an independent role for income risk in explaining consumption growth rates. Their results corroborate the notion that, if income uncertainty has been growing over the recent past (as the data suggest), then the failure of insurance between agents makes the precautionary motive for saving an increasingly important self-insurance mechanism.

Qualitative evidence from focus group data (Banks and Tanner, 1999) also suggests that these issues are very much in the minds of the UK population, however. In particular, in younger groups from wealthier (although not especially wealthy) backgrounds, there was an acute awareness of the need for both insurance and precautionary balances as insurance, given that these groups held no expectations of support from the state during periods of unemployment or ill health. These perceptions, however, were not held so strongly in older or poorer groups. An empirical understanding of the effects of precautionary saving on wealth holding at different points of the distribution (and how the

precautionary motive interacts with the life-cycle motive) is clearly an important topic for research, not least because the policy environment in the UK is such that both motives for saving are more important than they were. This is so, not just at the top of the wealth or income distributions but for the vast majority of households.

Banks, Blundell and Tanner (1998) address the question of whether households save enough for their retirement by looking at what happens to consumption around retirement. The marked fall that they observe can largely be explained within the life-cycle model in terms of anticipated changes in household demographics and labour market status. But there remains an important proportion of the fall in consumption around retirement that is still unexplained: the model can only explain two-thirds of the fall in consumption that happens at this time. This evidence suggests either that households have not saved enough or that there are unanticipated shocks occurring around the time of retirement.[18] One explanation may be found in the increasing body of evidence that individuals overestimate their future pension entitlements.[19] There may also be other informational shocks occurring at the time of retirement, such as expectations about the implications of illness or bad health.

The results of Banks, Blundell and Tanner (1998) apply to a cohort of households that have already

[18]In an interesting new development, Laibson, Repetto and Tabacman (1998) have shown, using simulation methods, that a fall in consumption around the time of retirement could also be generated if individuals have 'hyperbolic' discount rates as described above.

[19]Dilnot, Disney, Johnson and Whitehouse (1994) provide evidence from the UK Retirement Survey that, for 40 per cent of individuals, retirement income was less than they had expected; only one-tenth of the sample had pension income that exceeded their pre-retirement expectations.

retired. As argued above, the economic environment has changed sufficiently in recent years that the behaviour of older generations is not necessarily a guide to the behaviour or, indeed, needs of younger generations. To make even a preliminary assessment of the 'adequacy' of younger generations' saving, we need evidence on what savings and wealth they currently own. This is the subject of the next two chapters.

CHAPTER 4
Trends in Asset Ownership, 1978–96

In this chapter, we present evidence from the Family Expenditure Survey on rates of ownership of different assets between 1978 and 1996. The period has seen big increases in ownership of housing, pensions and shares, but these changes have not been experienced uniformly across age and income groups. In fact, at the bottom of the wealth distribution, there are a growing number of households with no assets at all.

4.1 The Stakeholder Society

The last two decades have witnessed dramatic changes in wealth ownership in the UK. The number of households with stocks and shares and private pensions and owning their home grew enormously, particularly during the 1980s.[20] However, the headline figures disguise very different experiences across age and income groups. At the bottom of the wealth distribution, there has been an increase in the number of households with no wealth at all. The broad trends in the ownership of six key asset types — interest-bearing accounts, stocks and shares, housing, life assurance, occupational pensions and personal pensions — are summarised in Table 4.1. The table shows the proportion of households in each year of the Family Expenditure Survey (FES) from 1978 to 1996 owning each of the assets and also the proportion of households with no assets at all.

[20]For a further discussion of these issues, see Johnson and Tanner (1998).

TABLE 4.1

Household asset ownership

	Percentage of households with …						
	Interest-bearing account	*Stocks and shares*	*Housing wealth*	*Life assurance*	*Occupational pension*	*Personal pension*	*No assets*
1978	54.4	9.1	52.4	78.1	51.7	—	5.9
1979	62.2	8.6	54.5	77.7	52.1	—	4.8
1980	63.9	8.3	54.8	78.1	53.1	—	4.7
1981	66.6	8.6	54.0	77.8	53.3	—	4.6
1982	64.5	7.8	57.1	76.4	53.2	—	5.9
1983	66.4	8.8	59.8	74.9	51.0	—	6.1
1984	64.6	8.5	60.9	76.5	50.7	—	6.3
1985	69.2	10.6	61.4	75.2	51.8	—	5.9
1986	61.0	13.3	62.3	75.1	49.5	—	7.1
1987	64.9	18.8	63.1	75.4	49.6	—	7.0
1988	65.2	22.8	66.1	73.5	52.1	12.9	7.3
1989	66.2	22.9	66.0	73.0	51.8	16.5	7.7
1990	61.1	23.8	66.5	72.4	51.2	19.8	7.6
1991	69.8	25.1	68.1	72.2	51.7	21.2	7.3
1992	67.0	23.9	66.3	70.8	48.5	21.8	8.7
1993	64.7	22.8	67.4	70.0	47.6	22.3	9.2
1994	63.2	22.3	68.2	68.3	46.9	20.4	8.4
1995	61.6	23.5	67.0	68.4	47.0	20.5	8.8
1996	60.4	23.3	66.5	65.5	47.4	18.9	10.2

Note: All figures are for households with head aged 20–80.

Interest-bearing account includes Tax-Exempt Special Savings Accounts and National Savings Investment and Ordinary accounts. Ownership defined on the basis of receipt of interest income during previous 12 months.
Stocks and shares includes unit trusts, PEPs and government gilts. Ownership defined on basis of receipt of interest or 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.
Occupational pension defined on the basis of receipt of occupational pension income, for those who have already retired. For workers, defined on the basis of contributions made by the individual into an occupational pension plan, or payment of contracted-out rate of National Insurance.
Personal pension defined on the basis of individual contributions into personal pension plans, or receipt of income from personal pensions if already retired.

Source: Authors' calculations using 1978–96 FESs.

The numbers in Table 4.1 show substantial increases in the level of ownership of stocks and shares, housing and private pensions. They also show a decline in the

The Family Expenditure Survey (FES)

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 (1994) and Banks and Blundell (1994a), for example). The FES contains far less information on individuals' stocks of wealth. But information on dividend income received from stocks of wealth held in interest-bearing accounts and 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 1996, a period when ownership of many assets, such as housing, shares and pensions, was changing fairly dramatically.

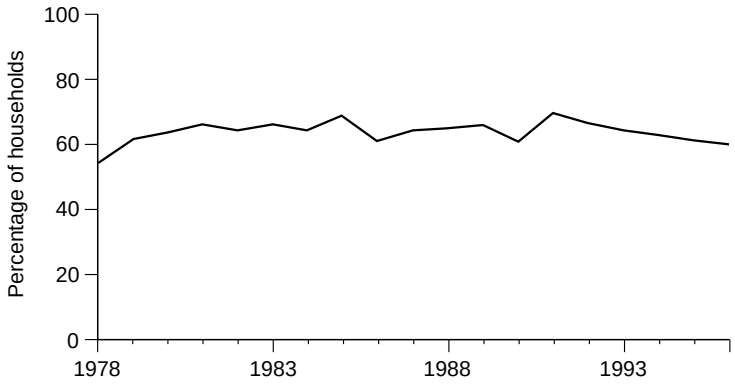
number of households with life assurance. Also, at the bottom of the wealth distribution, the proportion of households with no assets at all has more than doubled since the beginning of the 1980s. In this chapter, we look in detail at what has happened to ownership of these assets across different groups of households. We examine whether the trends have been experienced uniformly across different age and income groups and we discuss some of the underlying causes of the trends.

4.2 Interest-Bearing Accounts

The proportion of households with an interest-bearing account (IBA) has remained fairly constant since 1978, fluctuating around 65 per cent between 1978 and 1996 with no significant trend upwards or downwards (see

FIGURE 4.1

Percentage of households with an interest-bearing account



Source: Authors' calculations using 1978–96 FESs.

Figure 4.1). The series is noisy, a finding which may be attributable to the way the ownership variable is defined according to receipt of interest income and changes in the rate of interest over the period. It should be noted that other surveys have found the proportion of households with any bank or building society account to be around 90 per cent (see Kempson and Whyley (1999), Office of Fair Trading (1999) and Chapter 5), but this higher figure includes current accounts which may not pay interest.

Table 4.2 summarises the results of a simple multivariate analysis of the relationship between household characteristics and the probability of having an interest-bearing account. A full set of results is given in the appendix to this chapter. Older and richer households are more likely to have an IBA. Controlling for income, better-educated households are also more likely to have an IBA. The education split will be exploited repeatedly, since education ought to be related to lifetime resources — a fact confirmed by looking at

TABLE 4.2

Ownership of interest-bearing accounts: multivariate analysis

Income	Income has a positive effect on the probability of having an IBA. On average over the period, a household in the top income decile is 22 percentage points more likely to have an IBA than one in the bottom decile. However, the income differential has been getting smaller over time.
Age	The effect of age on the probability of having an IBA is positive and has been increasing over time.
Education	The effect of post-compulsory education is to increase the probability of having an IBA by 6 percentage points (all other things being equal).
Other assets	The probability of having an IBA is higher if the household has a private pension, stocks and shares or life assurance or owns their own home.
Work	Compared with the control group (those not in work), the effect of being employed or self-employed is to increase the probability of having an IBA by 8 percentage points, while being retired increases the probability by 9 percentage points.
Region	Compared with the control group (North England), households in the Midlands, the South-East and London are more likely to have an IBA (by 6, 7 and 3 percentage points respectively), while households in Scotland are 3 percentage points less likely to have an IBA.
Children	Having children in the household reduces the probability of having an IBA by nearly 5 percentage points.

Note: All effects are significant at the 5 per cent level.

wealth or saving patterns across groups. Over time, the differential effect associated with income has been diminishing, while differences between age groups have been increasing. Although there is no significant trend in the overall proportion of households with an IBA, there is a significant downward trend in the proportion of households aged 25–34 with an IBA and a significant upward trend in the proportion of households aged 65 or over with an IBA (see Table A.2 in the appendix to this chapter).

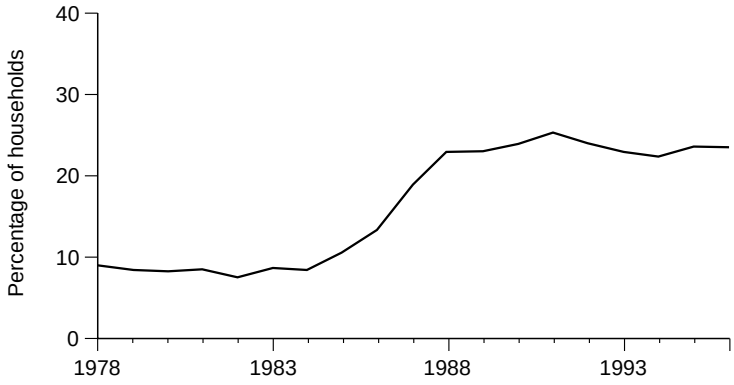
4.3 Stocks and Shares

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 (see Figure 4.2). 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

FIGURE 4.2

Percentage of households with stocks and shares



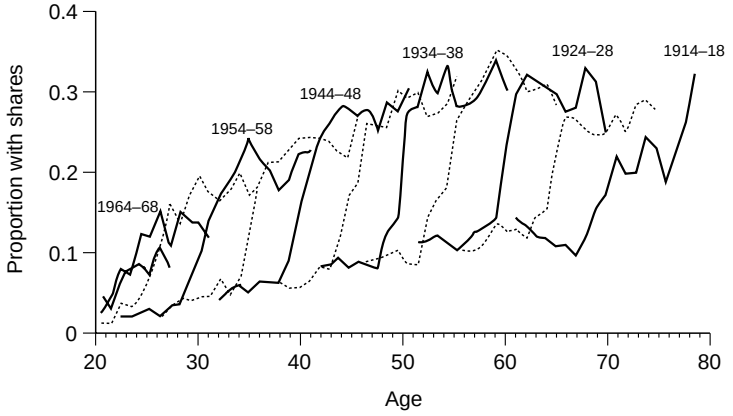
Source: Authors' calculations using 1978–96 FESs.

share owners own shares only in denationalised industries (see Chapter 5). However, the evidence suggests that the growth in share ownership was not simply a one-off occurrence linked to privatisation. One reason is that the privatisation process — the extensive advertising of share flotations, for example — is likely to have promoted greater awareness of the opportunities for investing in stocks and shares more generally. Also, since the late 1980s, opportunities for investing in Personal Equity Plans (and, more recently, Individual Savings Accounts) and demutualisations of building societies are likely to have sustained the increase in share ownership among younger cohorts.

Figure 4.3 shows the level of share ownership across different date-of-birth cohorts. Without access to panel data, we cannot look at the share-ownership rates of the same individuals over time. However, by grouping together individuals in successive cross-section waves

FIGURE 4.3

Cohort profiles: share ownership



Note: Age is defined by the average age of the cohort each year.

Source: Authors' calculations using 1978–96 FESs.

by their date of birth, we can track average levels of share ownership among cohorts over time. Each line in Figure 4.3 represents the proportion of households of a particular date-of-birth cohort that owned shares over the period in which the cohort is observed in the FES data. For example, take the cohort born between 1944 and 1948, who enter our sample aged between 30 and 34 in 1978 (average age 32). At that time, less than 5 per cent of the cohort owned shares. We track the cohort through successive waves of the FES until 1996, when they are aged between 48 and 52 (average age 50). By this time, nearly 30 per cent of the cohort own shares.

Vertical differences between cohort profiles represent differences between the cohorts observed at the same age in different years. Such differences could be due to time effects (affecting all cohorts at the same point in time) or to pure generational effects (implying that younger cohorts will be different from older cohorts at all ages) or a combination of both. The cohort profiles illustrate 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

TABLE 4.3

Ownership of stocks and shares: multivariate analysis

Income	Income has a positive effect on the probability of owning stocks and shares. A household in the top income decile is more than 19 percentage points more likely to be a shareholder than a household in the bottom income decile. The difference between rich and poor households has been increasing over time.
Age	The effect of age on the probability of owning shares is positive, but has been falling over time.
Education	The effect of post-compulsory education is to increase the probability of having stocks and shares by 11 percentage points. This education differential has been getting smaller over time.
Other assets	The probability of having stocks and shares is higher (all other things being equal) if the household has an interest-bearing account or a private pension or owns their own home. Having life assurance is not significant.
Work	Compared with the control group (those not in work), the effect of being employed is to reduce the probability of owning stocks and shares by 2 percentage points.
Region	Compared with the control group (North England), households in the South-East, London, South-West and Scotland are more likely to have stocks and shares (by between 1.5 and 2 percentage points).
Children	Having children in the household increases the probability of having stocks and shares by 2 percentage points.

Note: All effects are significant at the 5 per cent level.

older cohorts at the same age, suggesting that the increase in share ownership was more than a one-off phenomenon.

The results of a simple multivariate analysis of the relationship between household characteristics and share ownership are summarised in Table 4.3 (full results are given in the appendix to this chapter). As with interest-bearing accounts, we find that older, richer and better-educated households are more likely to own stocks and shares.

In the case of interest-bearing accounts, we found that the differential effect of age had been increasing over time; the reverse is true of stocks and shares. The average age of households owning stocks and shares has

fallen from 56.5 in 1978 to 51.7 in 1996. The differential associated with higher levels of education has also fallen over time. 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, the multivariate analysis shows that the differential effect of income increased over the period as a whole. Towards the very end of the period, however, there was an increase in share ownership among households at the bottom of the income distribution, most likely as a result of building society demutualisations (see also Table A.3 in the appendix to this chapter).[21]

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 an accurate portrayal of the UK experience since the early 1980s. Extensive initial advertising at the time of privatisation resulted in higher levels of share

[21]Among the poorest 25 per cent of households, the increase in the proportion with stocks and shares during the 1980s was relatively small. There has been a bigger increase since the late 1980s, which may reflect building society demutualisations.

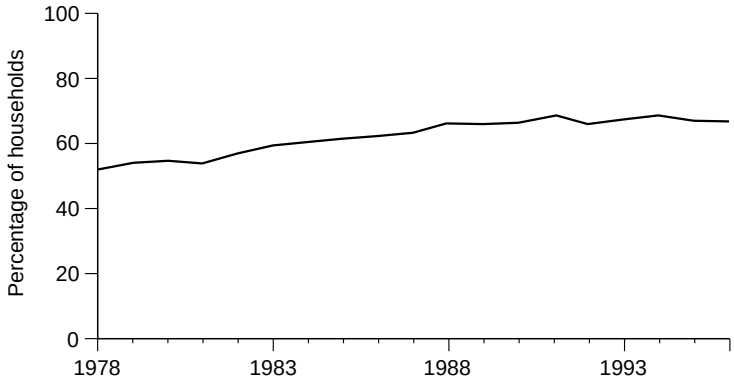
ownership, which have since been sustained by PEPs, ISAs and demutualisations. Levels of share ownership grew most rapidly among younger and less well-educated households, but share owners were still predominantly drawn from those at the top of the income distribution.

4.4 Housing

The proportion of households owning their home increased from just over half in 1978 to two-thirds in 1996 (see Figure 4.4). 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, which sold off council houses to their tenants, often at considerably less than market rates. In total, more than 1.6 million properties were sold as part of the right-to-buy programme.[22]

FIGURE 4.4

Percentage of households owning their own home



Source: Authors' calculations using 1978–96 FESs.

[22]Source: Giles, Johnson, McCrae and Taylor, 1996.

A second major change during this period was the liberalisation of the mortgage market. The process was begun in 1980 with the abolition of the supplementary special deposits scheme, or 'corset', which made it easier for banks to compete with building societies in the mortgage market.[23] Competition was further opened up by a series of measures in the early 1980s aimed at deregulating the activities of building societies and, in particular, giving individual building societies control over interest rates.[24] 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.[25]

The expansion in home ownership has not been uniform across all groups of households. Figure 4.5 shows home-ownership levels across different date-of-birth cohorts. The oldest generations (those in their seventies at the end of the period) have lower levels of ownership at all ages than younger generations. People in their fifties and sixties in 1996 are much more likely to own their own homes than people in their fifties and sixties in 1978. The increase in home-ownership rates has been driven largely by this generation replacing older cohorts who were less likely to own their own homes at all ages.

However, there has not been any further increase in levels of home ownership between the middle cohorts

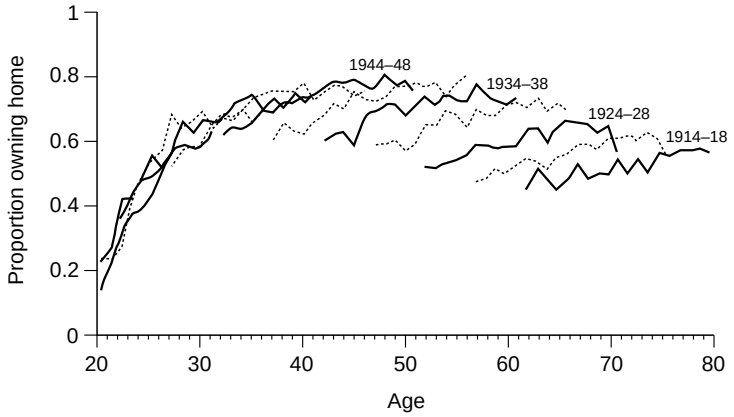
[23]The supplementary special deposits scheme was introduced in 1973. It required banks to deposit non-interest-bearing liabilities with the Bank of England if the expansion of their interest-bearing liabilities exceeded certain rates and acted as a curb on their lending ability.

[24]For further information, see Davis and Weber (1991).

[25]Source: Muellbauer and Murphy, 1990.

FIGURE 4.5

Cohort profiles: home ownership



Note: Age is defined by the average age of the cohort each year.

Source: Authors' calculations using 1978–96 FESs.

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 which 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, it may reflect other social changes, including more young people going to university (and therefore starting work later) and trends towards later marriage and childbearing.

TABLE 4.4

Home ownership: multivariate analysis

Income	Home-ownership rates do not vary systematically across income groups. The probability of home ownership is actually higher in the bottom income decile than in deciles 2–7 (controlling for other characteristics). However, households in the top two income deciles are more likely to own their own homes than those in the bottom decile.
Age	The effect of age on the probability of being a home owner is positive and has been increasing over time.
Education	The effect of post-compulsory education is to increase the probability of owning your own home by 21 percentage points. However, the education differential has been falling over time.
Other assets	The probability of owning your home is greater for households that also have an interest-bearing account, stocks and shares, a private pension or life assurance.
Work	Compared with the control group (those not in work), the effect of being retired, employed or self-employed is to increase the probability of home ownership by 20, 24 and 27 percentage points respectively.
Region	Compared with the control group (North England), households in the South-East, London and Scotland are less likely to own their homes (by 2, 17 and 22 percentage points respectively). Households in the South-West are more likely to own their home, by 3 percentage points.
Children	Having children increases the probability of the household owning their home by 12 percentage points.

Note: All effects are significant at the 5 per cent level.

Table 4.4 summarises the results of a simple multivariate analysis of home ownership (full results are given in the appendix to this chapter). As with ownership of interest-bearing accounts and stocks and shares, older and better-educated households are more likely to own their homes. However, we do not find a systematic relationship between income and home ownership. The richest 10 per cent of households are the most likely to own their homes. However, the poorest 10 per cent are not the least likely to own their homes. The absence of a strong link between current income and home ownership is perhaps not that surprising, since younger households can borrow substantially

more than their current income for house purchase, while older households are typically reluctant to realise the wealth in their homes even when their incomes are low. Over time, the differential associated with age has been increasing. The biggest increase in home ownership has been among households in their fifties and sixties in 1996 (compared with households in their fifties and sixties in 1978), not among those in their twenties and thirties (see also Table A.2 in the appendix to this chapter).

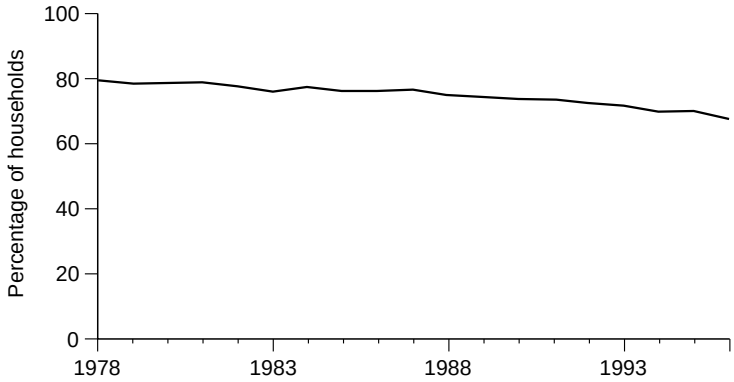
4.5 Life Assurance

Life assurance is the one asset that has seen a significant decline in ownership over the period 1978–96 (see Figure 4.6). In 1978, it was the most commonly held asset, held by nearly four out of every five households. By 1996, the proportion of households with life assurance had fallen to two-thirds. A key policy change over the period was that life assurance premiums became subject to tax from 1984. Before then, they attracted tax relief, which, since it was deducted at source, also benefited non-taxpayers.[26] Clearly, the removal of tax relief is likely to have had an effect on the number of new policies taken out after 1984, although the decline in ownership had begun before then. The decline would have been greater still without a significant increase in the number of people buying homes with endowment mortgages (included in our definition of life assurance) during the 1980s. In 1991, an estimated 64.9 per cent of the premium value of new annual life policies taken out was mortgage-related.[27]

[26]Premiums on policies taken out before 1984 continue to receive relief at the investor's marginal tax rate.
[27]Source: Banks and Blundell, 1994b.

FIGURE 4.6

Percentage of households with life assurance



Source: Authors' calculations using 1978–96 FESs.

TABLE 4.5

Life assurance: multivariate analysis

Income	Households with higher incomes are more likely to have life assurance, but only up to a point. Households in the middle of the income distribution are more likely to have life assurance than those at the bottom. But households at the top of the income distribution are not much more likely to have life assurance than those in the middle.
Age	The effect of age is positive and has been increasing over time.
Education	The effect of post-compulsory education is to reduce the probability of having life assurance by 8 percentage points. However, this differential has been getting smaller over time.
Other assets	The probability of having life assurance is greater for households that have an interest-bearing account or a private pension or own their own home. However, households that own stocks and shares are less likely to have life assurance than those that do not.
Work	Compared with the control group (those not in work), the effect of being employed, self-employed or retired is to increase the probability of having life assurance by 19, 15 and 13 percentage points respectively.
Region	Compared with the control group (North England), households in the Midlands, South-East, London and South-West are less likely to have life assurance (by 4, 2, 7 and 4 percentage points respectively). Households in Scotland are more likely to have life assurance, by 6 percentage points.
Children	Having children increases the probability of a household having life assurance by 8 percentage points.

Note: All effects are significant at the 5 per cent level.

Multivariate analysis of the relationship between a household's characteristics and the probability of having life assurance, summarised in Table 4.5, reveals two key respects in which life assurance is different from the other assets discussed so far. The first is that better-educated households are less likely to hold life assurance (conditional on their age and income). Second, we find that households with stocks and shares are less likely to own life assurance (conditional on their other characteristics). All our multivariate analyses have looked at the effect of an individual holding other assets. Typically, the fact that households have other assets has a positive effect on the probability of owning a particular asset. However, this is not the case for life assurance and direct holdings of stocks and shares.

4.6 Financial Exclusion

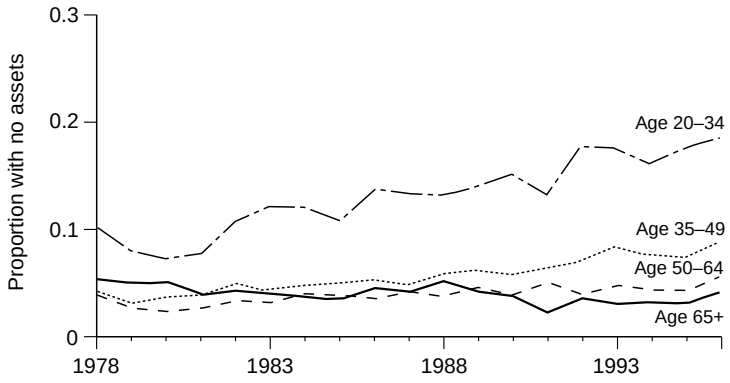
The last two decades have seen big changes in the ownership of key assets. However, increases in share ownership, home ownership and the number of households with private pensions should not disguise the fact that, at the bottom of the wealth distribution, there has been an increase in the number of households with no assets at all. The official wealth statistics show that the distribution of total financial wealth over the same period became more equal. However, this conclusion is drawn from comparing the total wealth held by the wealthiest half with total wealth of the bottom half. Our analysis shows that, within the bottom half of the wealth distribution, there has been increasing inequality of ownership of different assets. At the beginning of the 1980s, only 5 per cent of households had no assets. A decade later, the proportion had doubled.

Financial exclusion has been the focus of two recent studies — Kempson and Whyley (1999) and the Office of Fair Trading (1999). Kempson and Whyley use information from the Family Resources Survey, collected from 1993 onwards by the Department of Social Security, to identify ownership of different assets. They find that 7 per cent of households have no financial products (which they define widely to include financial wealth, mortgages, pensions and insurance). The higher proportion of households with no assets in the FES is likely to be due to the fact that the FES does not pick up bank and building society accounts that do not pay interest.

The increase in the number of people with no assets has been greatest among 20- to 34-year-olds, as Figure 4.7 shows — from one in 10 at the beginning of the period to one in five by the end. The proportion of younger households with an interest-bearing account has fallen significantly, the decline in ownership of life

FIGURE 4.7

Proportion of households with no assets by age



Note: Age refers to that of the head of household.

Source: Authors' calculations using 1978–96 FESs.

assurance has been greatest among younger households and this age group has not experienced any increase in home ownership compared with households in their twenties and thirties in 1978 (see Table A.2 in the appendix to this chapter). While young households did experience the greatest rise in share ownership, the fact that shares are typically held in conjunction with other assets means that the rise in share ownership did not substitute for interest-bearing accounts and life assurance, which were often held singly.

Is the increase in the number of younger households with no assets a cause for concern? Kempson and Whyley (1999) stress that financial exclusion is a dynamic process, with some people who currently have no financial assets having had them in the past and likely to have them again in the future. Indeed, the life-cycle model predicts that younger people will be less likely to own assets than older households simply because they have had less time to accumulate wealth. Recent social changes — an increase in the numbers going on to further education and people getting married and starting families later, for example — may mean that people delay starting to accumulate wealth. Also, borrowing is easier today than it was 20 years ago. Greater access to credit means that people no longer have to save up for durable purchases and they can also afford to hold smaller precautionary balances.

However, a potential cause for concern is if people do not save because they lack information to make decisions about how much to save and the form in which to save. For example, the government wants people to take more responsibility for saving for their retirement. But what if people are not aware of the future impact of reforms to the state pension system? Also, how much they themselves need to save in order to provide an adequate level of income in retirement

depends on uncertain investment returns and annuity rates. The proliferation of savings vehicles gives people more choice, but it may also make decisions about saving more complicated. An increase in the information cost of making saving decisions may be one reason why people do not save.

A second cause for concern is if people cannot afford to save. The 1970s, and particularly the 1980s, saw a sharp increase in income inequality and a change in the composition of 'the poor'.[28] Thirty years ago, pensioners formed almost half of the poorest 10 per cent of households; now they form less than a quarter. Unemployed families with children and single-parent families — typically younger households — are the new poor. Evidence from the FES, summarised in Table 4.6, shows that the types of households that are among the poorest in terms of income are also the least likely to hold any wealth and, indeed, the increasing number of single-parent and workless younger households is likely to be one of the underlying causes of the rise in the

TABLE 4.6

Households with head aged 20–34 with no assets, 1996

	Percentage with no assets	*Sample size*
Single, employed, no children	10.3%	252
Single, employed, children	28.6%	70
Single, unemployed, no children	53.8%	80
Single, unemployed, children	53.6%	151
Couple, employed, no children	4.5%	312
Couple, employed, children	7.6%	151
Couple, unemployed, no children	35.3%	34
Couple, unemployed, children	55.8%	104

Note: Employment status refers to that of the head of household.

Source: Authors' calculations using 1996 FES.

[28]Goodman, Johnson and Webb, 1997.

number of wealthless households. It is a matter for concern that there is a growing number of households with access to so few resources.

Appendix: Asset-Ownership Rates, 1978–96

See overleaf.

TABLE A.1

Probit regression results

	Interest-bearing account		Stocks and shares		Home ownership		Life assurance	
	Marg. effect	*SE*	*Marg. effect*	*SE*	*Marg. effect*	*SE*	*Marg. effect*	*SE*
Education	.0600	*.0064*	.1114	*.0052*	.2094	*.0061*	–.0805	*.0061*
(Age–40)/10	–.0045	*.0023*	.0422	*.0017*	.0184	*.0024*	.0460	*.0020*
{(Age–40)/10}^{2}	.0108	*.0006*	–.0032	*.0004*	–.0120	*.0007*	–.0221	*.0005*
Ed.×Age	–.0060	*.0019*	.0126	*.0011*	.0199	*.0019*	–.0501	*.0015*
Children	–.0460	*.0037*	.0184	*.0023*	.1244	*.0038*	.0783	*.0032*
No. of adults	–.0062	*.0019*	.0020	*.0012*	.0391	*.0020*	.0806	*.0018*
Yearly trend	.0095	*.0017*	.0062	*.0011*	–.0075	*.0018*	–.0127	*.0014*
Inc.×Trend	–.0027	*.0003*	.0012	*.0002*	.0039	*.0003*	.0011	*.0002*
Age×Trend	.0004	*.0001*	–.0011	*.0001*	.0009	*.0001*	.0002	*.0001*
Ed.×Trend	.0009	*.0005*	–.0044	*.0003*	–.0086	*.0005*	.0047	*.0004*
Decile 2	.0376	*.0061*	–.0087	*.0049*	–.1635	*.0071*	.0462	*.0046*
Decile 3	.0638	*.0061*	–.0014	*.0052*	–.2332	*.0073*	.0759	*.0051*
Decile 4	.0981	*.0060*	.0175	*.0057*	–.1782	*.0076*	.0636	*.0055*
Decile 5	.1248	*.0060*	.0409	*.0064*	–.1131	*.0080*	.0531	*.0059*
Decile 6	.1557	*.0059*	.0600	*.0071*	–.0713	*.0083*	.0549	*.0062*
Decile 7	.1669	*.0061*	.0706	*.0076*	–.0419	*.0087*	.0499	*.0066*
Decile 8	.1779	*.0062*	.0951	*.0085*	–.0005	*.0089*	.0523	*.0069*
Decile 9	.1967	*.0063*	.1224	*.0097*	.0550	*.0091*	.0609	*.0075*
Decile 10	.2153	*.0068*	.1940	*.0123*	.1137	*.0094*	.0702	*.0014*
Employed	.0778	*.0056*	–.0160	*.0044*	.2366	*.0057*	.1945	*.0047*
Self-empl.	.0838	*.0062*	.0045	*.0051*	.2718	*.0039*	.1510	*.0036*
Retired	.0872	*.0070*	.0065	*.0053*	.2038	*.0065*	.1306	*.0051*
Midlands	.0562	*.0041*	.0002	*.0028*	.0033	*.0045*	–.0424	*.0040*
South-East	.0684	*.0038*	.0227	*.0026*	–.0234	*.0043*	–.0180	*.0036*
London	.0335	*.0049*	.0232	*.0035*	–.1708	*.0057*	–.0686	*.0048*
South-West	–.0002	*.0046*	.0146	*.0031*	.0297	*.0048*	–.0413	*.0043*
Scotland	–.0299	*.0054*	.0182	*.0038*	–.2229	*.0059*	.0621	*.0042*
Has pension	.0994	*.0031*	.0158	*.0019*	.1185	*.0032*	.0601	*.0028*
Has IBA	—	—	.1022	*.0018*	.1915	*.0032*	.0481	*.0029*
Has shares	.2033	*.0035*	—	—	.1595	*.0040*	–.0400	*.0039*
Home owner	.1912	*.0032*	.0810	*.0020*	—	—	.0934	*.0030*
Has life ass.	.0641	*.0033*	–.0008	*.0020*	.0292	*.0034*	—	—
No. of obs.	127,247		127,247		127,247		127,247	
Pseudo R^2	0.154		0.210		0.237		0.152	

Variable definitions:

Education	whether the head of household received post-compulsory education
Children	whether or not there are children in the household
Income	log equivalised household income, net of taxes
Decile	income decile, defined within years on the basis of equivalised household income, net of taxes
Work status	of the head of household; control is not working and head < 55; retired is not working and head 55+
Region	control is North England

TABLE A.2

Asset ownership by age

Percentage of households

	Interest-bearing accounts				Stocks and shares			
Age:	*25–34*	*35–49*	*50–64*	*65+*	*25–34*	*35–49*	*50–64*	*65+*
1978	51.7	52.7	57.1	56.0	3.4	7.6	11.7	13.8
1979	59.6	59.6	65.6	64.1	4.1	7.7	10.8	12.0
1980	61.1	62.9	68.7	62.6	3.8	7.5	11.5	10.5
1981	62.5	64.4	71.7	67.8	3.7	6.6	12.3	12.0
1982	60.5	61.9	68.5	67.5	3.4	6.7	11.0	10.4
1983	59.0	65.4	70.4	71.0	4.8	7.5	10.9	12.3
1984	58.4	62.6	68.2	69.2	3.9	6.8	12.5	10.5
1985	63.7	67.8	72.1	72.9	6.3	9.5	15.1	11.3
1986	56.1	61.0	63.3	64.0	8.8	14.6	15.9	13.8
1987	60.0	64.5	67.5	67.9	12.0	19.2	25.4	19.1
1988	61.5	63.4	69.6	66.9	14.9	23.6	28.9	23.5
1989	59.8	66.7	68.1	70.5	13.1	24.0	31.7	23.0
1990	55.3	61.5	64.7	63.0	16.1	25.2	30.2	24.1
1991	62.2	68.9	72.1	77.0	16.5	26.1	33.3	25.0
1992	56.9	63.8	72.2	76.8	15.7	24.6	31.2	24.7
1993	53.8	63.1	68.9	74.7	12.8	24.1	30.4	24.7
1994	52.7	62.1	68.4	70.7	14.1	21.6	29.3	25.2
1995	52.4	60.3	64.9	70.7	14.0	21.7	30.2	29.8
1996	52.7	58.0	64.3	68.8	12.9	21.6	30.2	31.2
	Home ownership				Life assurance			
Age:	*25–34*	*35–49*	*50–64*	*65+*	*25–34*	*35–49*	*50–64*	*65+*
1978	54.2	60.2	48.6	46.1	77.9	86.8	82.9	63.0
1979	56.5	63.0	50.8	47.0	77.5	87.1	82.5	63.0
1980	55.0	63.0	53.5	46.7	77.2	86.2	83.7	63.6
1981	55.1	61.5	52.7	45.5	77.2	86.7	83.2	61.9
1982	55.8	67.7	55.2	47.3	72.4	84.7	82.5	63.2
1983	56.2	70.9	59.8	50.2	70.9	85.4	80.2	60.5
1984	60.4	71.1	59.8	50.1	73.6	85.4	80.8	63.2
1985	59.0	72.7	61.7	49.3	72.7	84.8	79.7	61.0
1986	59.7	73.2	64.2	49.5	69.7	85.2	80.4	62.8
1987	58.3	74.2	64.0	53.9	71.0	85.9	81.8	61.0
1988	62.9	75.7	69.2	54.1	72.5	81.4	78.2	59.9
1989	59.5	76.3	68.7	57.6	70.5	83.3	77.9	58.4
1990	61.4	76.8	69.6	56.2	68.8	83.3	77.3	58.2
1991	61.9	77.3	72.5	59.4	70.7	82.5	75.1	58.6
1992	55.8	73.8	73.8	60.3	67.0	79.9	76.9	56.8
1993	57.3	73.7	75.2	62.4	66.3	80.2	74.5	55.7
1994	56.3	76.3	76.1	62.3	65.7	75.0	71.5	58.8
1995	55.0	74.5	74.3	62.4	65.3	75.9	73.2	56.6
1996	52.8	73.2	75.0	64.4	61.5	74.3	70.1	53.1

Note: Age refers to that of the head of household.

Source: Authors' calculations using 1978–96 FESs.

TABLE A.3

Asset ownership by income

Percentage of households

Income:	Interest-bearing accounts				Stocks and shares			
	Poorest 25%	*2nd quartile*	*3rd quartile*	*Richest 25%*	*Poorest 25%*	*2nd quartile*	*3rd quartile*	*Richest 25%*
1978	38.6	50.9	60.6	67.4	4.4	7.0	8.7	16.2
1979	47.4	58.6	65.2	77.4	4.1	5.3	8.2	16.6
1980	45.3	61.5	67.9	80.7	3.4	4.8	7.4	17.5
1981	49.4	62.3	72.2	82.5	4.1	4.5	8.3	17.6
1982	46.6	60.3	70.3	81.0	2.8	4.6	7.9	16.0
1983	46.8	61.0	74.2	83.6	4.1	4.0	9.0	18.1
1984	44.3	58.7	72.9	82.5	2.3	3.8	9.6	18.3
1985	51.3	65.1	76.3	84.0	3.1	5.3	11.5	22.7
1986	40.6	55.9	69.6	78.1	4.6	6.7	13.6	28.3
1987	44.8	60.9	73.4	80.5	5.8	11.6	22.4	35.5
1988	44.0	60.6	74.1	82.2	7.0	16.3	26.6	41.0
1989	46.7	63.1	73.9	81.1	9.2	17.6	25.5	39.4
1990	38.3	56.8	72.6	76.6	7.4	17.0	27.4	43.6
1991	48.3	67.0	78.1	85.9	7.8	18.2	29.2	45.2
1992	46.0	61.0	76.2	84.8	8.5	15.9	28.2	43.1
1993	42.0	58.7	74.2	83.9	8.2	14.8	27.0	41.3
1994	47.2	58.4	69.7	77.3	12.7	15.5	24.2	36.9
1995	45.6	55.8	68.4	76.8	13.6	17.8	26.0	36.7
1996	44.0	55.2	66.2	76.1	13.4	15.6	26.5	37.9
Income:	Home ownership				Life assurance			
	Poorest 25%	*2nd quartile*	*3rd quartile*	*Richest 25%*	*Poorest 25%*	*2nd quartile*	*3rd quartile*	*Richest 25%*
1978	35.2	50.7	54.9	68.8	67.6	81.0	81.4	82.7
1979	38.3	48.4	59.9	71.4	66.3	79.4	82.5	82.6
1980	36.7	48.7	58.5	75.2	67.3	80.3	83.7	81.1
1981	37.8	43.6	59.5	75.1	68.8	77.6	83.1	81.6
1982	40.2	46.1	63.1	79.0	64.4	77.9	82.6	80.7
1983	43.3	47.2	66.4	82.3	63.5	76.1	80.1	80.0
1984	43.7	47.5	68.3	84.2	65.5	75.5	81.8	83.3
1985	41.6	49.1	69.1	85.6	61.6	75.6	81.8	81.8
1986	44.1	48.0	72.4	84.6	62.6	73.9	82.1	81.7
1987	41.8	50.9	74.0	85.8	61.3	76.2	82.2	81.9
1988	40.7	56.6	77.9	89.0	59.5	73.7	79.3	81.5
1989	39.9	57.3	77.0	89.7	56.7	73.5	80.6	81.4
1990	41.5	57.3	78.9	88.3	57.3	72.5	79.3	80.6
1991	43.2	60.6	79.2	89.5	54.4	71.9	79.9	82.6
1992	43.3	55.4	78.6	88.1	54.7	69.1	79.6	79.7
1993	46.2	56.2	78.6	88.7	53.0	68.9	76.6	81.4
1994	45.8	59.5	78.5	88.9	54.1	67.3	74.4	77.3
1995	43.5	57.3	79.7	87.4	54.6	66.9	74.7	77.6
1996	47.5	55.3	77.1	86.1	53.0	64.6	71.4	73.1

Note: Income quartiles based on equivalised net household income.

Source: Authors' calculations using 1978–96 FESs.

CHAPTER 5
A Cross-Sectional Analysis of Financial Wealth Holdings in 1997–98

In this chapter, we present new evidence on wealth in the UK. We look at differences in financial wealth holdings, portfolio allocations and asset ownership by age, education, income and wealth. We also examine differences in financial wealth holdings between those who have a pension or own a house and those who do not.

In the previous chapter, we presented time-series evidence on the evolution of asset ownership over the period 1978–96. In this chapter, we present a more detailed look at portfolios and examine how much wealth is held in different forms (for example, building society accounts, TESSAs or shares) by which types of individuals or households. Such an analysis is not possible using any of the publicly available household datasets in the UK. Relative to other countries, and in particular the US, the information available on saving and wealth is poor, a situation which is not the case for, say, data on 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)), but, as we argued in Chapter 3, most of the important current policy questions require knowledge of the saving behaviour of individuals of working age as well as the

retired. Also, the most recent wave of these data, collected in 1992, is already somewhat out of date.[29]

In what follows, 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.[30]

5.1 The Financial Research Survey

The Financial Research Survey (which we shall refer to as the NOP-FRS to avoid confusion with the Family Resources Survey (FRS)) is an ongoing survey collecting information on around 4,800 individuals per month. Information is obtained on all 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.

An earlier year of this survey was used by Banks, Dilnot and Low (1994) to document the distribution of wealth in 1991–92,[31] but in the analysis below we use data covering the period January 1997 to June 1998.

[29]The other source of information, which we do not use 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 detailed population breakdowns for the less intensely held assets.

[30]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.

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

Data up to September 1999 have been processed at the time of going to press but we focus on the earlier sample for comparability, as other data sources are not available beyond this date. Analysis of the recent 1999 data, particularly in the light of the replacement of TESSAs and PEPs with ISAs, is clearly a priority for further research, since it is the first such detailed information available on this episode.

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 5.1. In total, there are

TABLE 5.1

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

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

Source: 1997–98 NOP-FRS data.

over 75,000 individuals in the sample, distributed evenly over the 18-month period, with an average of 4,244 observations per month.

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, 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 chapter, we use the mid-points of the bands to estimate holdings.[32] For those individuals who say they have a particular asset but cannot recall, or refuse to say, the balance, we impute to

[32]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. Sensitivity calculations have 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.

that observation the median value of those of the same age band and education group who hold that asset.

Finally, in the analysis that follows, we focus on financial wealth, i.e. wealth excluding private and state pensions, life insurance and housing. The main reason for this is that one would need extremely detailed information on housing equity, mortgages and pensions (particularly for defined benefit plans) to impute values of these components of wealth accurately. Instead, we use the summary information on whether an individual is a member of a private pension scheme and whether the individual has a mortgage to construct a variable taking six values according to all permutations of whether the individual does or does not own their own home[33] and whether they have no private pension, have a private pension or are retired. We can then look at differences in financial wealth across these groups for evidence of complementarities or offsetting effects.

5.2 Who Owns What Assets

Although information is collected on each savings product held individually, for the purpose of analysis we group products into classes to facilitate a general analysis. At no point do we exploit brand- or product-specific differences but we focus instead on distinguishing between different types of savings product.

We begin by describing broad asset-ownership patterns, with savings vehicles grouped into the very widest categories. This analysis corresponds to that in

[33]The exact question refers to whether the household is an owner-occupier or renter. Hence a 25-year-old living with their owner-occupier parents would be recorded as a home owner. We get around this problem by classing as home owners anyone with a mortgage in their name, whatever age, plus all those who say they are owner-occupiers and are aged over 30.

the previous chapter and is an important bench-marking exercise for both surveys, as well as facilitating comparison with the Kempson and Whyley (1999) and Office of Fair Trading (1999) studies.

Table 5.2 presents ownership rates for four types of products — liquid checking accounts used for transactions purposes, interest-bearing or deposit accounts, investments (all other products, including PEPs, shares, unit trusts, bonds, etc. but not including pensions) and loans (excluding mortgages and credit-card or store-card balances). Also shown is the proportion of individuals with no savings products at all. The final row of the table indicates that, across the sample as a whole, 9 per cent of individuals have no savings products at all (a number that corresponds well with the findings of Chapter 4, Office of Fair Trading (1999) and Kempson and Whyley (1999), all of which show proportions of around one-tenth). Roughly 80 per cent of the sample have a checking account, but only 60 per cent have at least one savings account of one type or other. Although there is no information on current accounts in the Family Expenditure Survey data used earlier, the proportion with savings accounts matches very closely the figure of 60.4 per cent for the 1996 FES data presented in Table 4.1. Finally, less than half have some investments and approximately one in six hold some kind of loan.

Table 5.2 shows how these ownership rates vary by household characteristics. In particular, we focus on five gradients of interest — the way in which ownership varies with age, education, social class, housing and pension status, and income. We first split the population into six (10-year) age groups. As in the FES data presented earlier, the most striking patterns are that older individuals are more likely to hold investments

TABLE 5.2

Broad asset-ownership rates

Full sample

	Proportion of group with:				
	None	*Checking accounts*[a]	*Savings/ deposits*[b]	*Investments*[c]	*Loan*[d]
Age 22–29	0.11	0.78	0.55	0.30	0.26
Age 30–39	0.09	0.81	0.60	0.41	0.22
Age 40–49	0.07	0.84	0.62	0.48	0.18
Age 50–59	0.08	0.81	0.62	0.53	0.12
Age 60–69	0.10	0.76	0.62	0.55	0.04
Age 70+	0.14	0.65	0.60	0.46	0.01
Compulsory education	0.14	0.69	0.55	0.37	0.14
Education to age 18	0.06	0.86	0.65	0.53	0.13
Education beyond 18	0.02	0.95	0.69	0.62	0.19
Social class AB	0.01	0.96	0.72	0.70	0.15
Social class C1	0.02	0.91	0.68	0.56	0.16
Social class C2	0.05	0.83	0.63	0.45	0.16
Social class D	0.10	0.72	0.55	0.33	0.15
Social class E	0.31	0.43	0.42	0.21	0.08
Housing/Pension:[e]					
H=0; P=0	0.22	0.58	0.43	0.20	0.16
H=1; P=0	0.04	0.87	0.64	0.49	0.14
H=0; P=1	0.02	0.90	0.63	0.44	0.23
H=1; P=1	0.01	0.96	0.72	0.63	0.25
H=0; P=retired	0.24	0.48	0.49	0.29	0.02
H=1; P=retired	0.05	0.82	0.69	0.63	0.03
Income decile:					
1 (lowest)	0.31	0.45	0.39	0.18	0.13
2	0.21	0.57	0.46	0.29	0.11
3	0.23	0.51	0.49	0.28	0.09
4	0.07	0.77	0.58	0.42	0.13
5	0.06	0.79	0.63	0.46	0.14
6	0.03	0.88	0.66	0.51	0.20
7	0.02	0.91	0.69	0.58	0.20
8	0.01	0.95	0.72	0.61	0.26
9	0.01	0.97	0.74	0.64	0.25
10 (highest)	0.00	0.98	0.76	0.74	0.25
Income not asked	0.08	0.79	0.62	0.49	0.08
Income dk/refused	0.12	0.74	0.55	0.38	0.07
All	0.09	0.78	0.60	0.46	0.14

[a]Accounts for transactions purposes.
[b]Interest-bearing deposit accounts.
[c]All other products, including PEPs, shares, unit trusts, etc. but not pensions or life insurance.
[d]Excluding mortgages and credit-card balances.
[e]H=0/1 and P=0/1 reflect housing wealth and private pension wealth ownership status respectively.

Source: 1997–98 NOP-FRS data.

and less likely to hold loans, much in keeping with both common sense and the predictions of the economic models discussed in Chapter 3. Younger people presumably expect income to rise in the future, and older people expect income to fall and have had more time to build up a stock of assets.

The problem with attributing the age differences from such a tabulation to 'age effects' is that, within one year of data such as we have here, those who are older are also from previous generations; hence we cannot, strictly speaking, pin the effects down to age as opposed to cohort effects, as described in the previous chapter. This may be one reason why the 70+ group are less likely to hold investments than the 60- to 69-year-olds, although such a result is also in keeping with the idea that, other things being equal, those with longer horizons should invest more in risky assets.

For the purpose of the analysis in this chapter, education status is defined in three groups, the first being those who left full-time education before or at the school-leaving age at that time. The second group contains those educated beyond the school-leaving age but who left before age 19. The final group contains those with further post-compulsory education.

Table 5.2 shows that there are substantial differences in asset-ownership rates by education group. As in the FES data presented in Chapter 4, the least-educated are the most likely to have no financial products at all ages and, within each class of savings vehicle, are least likely to own them. Ownership rates of investments are over one-and-a-half times higher within the highest-educated group than in the group with the least education. Similar gradients emerge when we split the data by social class.

We cannot measure housing and pension wealth accurately in the NOP-FRS, but we can look at the differences in holdings of financial assets between home

owners and those who contribute to a pension. Those without houses (H=0) and not contributing to pensions (P=0 or P=retired) are least likely to hold a particular asset type, demonstrating the separation in the distribution of asset holding. Those without the major assets are not compensating by being more likely to hold other products but instead are likely to hold nothing at all. We will examine this split in more detail below when we look at average holdings of wealth.

Finally, to analyse the relationship between individual asset ownership and household income, we split the population into 10 income deciles according to their ranking in the income distribution, where incomes have been adjusted for family size.[34] Since only heads of households or their spouse are asked to give their household incomes, a proportion of the sample (around 20 per cent) are not asked, and a further 17 per cent either refused or were unable to answer. We tabulate ownership rates for these two groups separately rather than impute income values. Once again, a similar picture emerges — the poorest groups are least likely to own assets and, in particular, least likely to hold investments, as would be predicted by economic models. They are also least likely to hold loans, possibly because of liquidity constraints or a more general lack of engagement with financial services.

These income effects, along with the other gradients outlined above, are all strong enough to hold in a multivariate context, although results are not presented here. As expected, results from this exercise are qualitatively similar to those documented in the analysis of the previous chapter.

[34]We use an equivalence scale taking the value 1 for a single adult and adding 0.6 for subsequent adults and 0.4 for each child.

5.3 The Distribution of Financial Wealth

The advantage of the NOP-FRS data is that they contain (banded) information on the amounts of financial wealth that people hold. Wealth information is available in the survey for all types of non-pension and non-housing assets except current accounts at the bank or building society (whether they pay interest or not). On average, almost 30 per cent of individuals have no financial wealth, and this is not a group that is solely made up of the young (see Table 5.3). Although the proportion with no wealth is higher for young people than for their older counterparts (as one would expect), there are still significant groups of middle-aged and older individuals with no financial wealth holdings. Around one-quarter of 40- to 70-year-olds, for example, have no funds in these forms of wealth.

Table 5.4 summarises the distribution of wealth across individuals. At this stage, we do not net off debt. A key result is that the median level of wealth is £750, i.e. half the population holds less than £750 in financial

TABLE 5.3

Proportion with no financial wealth by age band

	Full sample
Age band	*Proportion*
22–29	0.388
30–39	0.314
40–49	0.279
50–59	0.263
60–69	0.256
70+	0.295
All	0.299

Note: Financial wealth includes deposit accounts, savings and investments but does not include balances in current accounts, pension or housing wealth or the value of life insurance policies.

Source: 1997–98 NOP-FRS data.

TABLE 5.4

Average financial wealth by wealth decile

	All individuals		Those with positive wealth	
Wealth decile	*Median*	*Mean*	*Median*	*Mean*
1 (least wealthy)	0	0	100	100
2	0	0	350	278
3	0	1	750	693
4	100	125	1,500	1,392
5	550	554	1,750	1,774
6	1,750	1,405	2,850	2,914
7	1,850	2,204	4,850	5,135
8	4,500	5,090	9,100	8,924
9	11,000	11,422	16,750	17,271
10 (most wealthy)	32,500	50,558	46,600	63,343
All	750	7,136	1,850	10,182

Note: See note to Table 5.3.

Source: 1997–98 NOP-FRS data.

wealth. Analysis of data from the 1991–92 NOP-FRS by Banks, Dilnot and Low (1994) found that the median level of financial wealth was £455.

The unequal distribution of wealth is clear. The average (mean) level of wealth is much higher than the median (£7,136 compared with £750) as a result of a relatively small number of people holding quite large amounts of wealth. Among the wealthiest 10 per cent of individuals, the average level of wealth is more than £50,000. It is only above about the 75th percentile of the wealth distribution that individuals have more than £5,000. This demonstrates that the annual limits typically imposed on tax-favoured products, such as TESSAs, PEPs and ISAs, do not constrain the accumulation of resources in each of these forms for the majority of individuals.

In Table 5.5, we look in more detail at average wealth holdings, splitting the population in the same ways as Table 5.2. The first column of the table shows

TABLE 5.5

Wealth by age band, education, social class and broad portfolio type

Pounds. Full sample

	Median financial wealth	*Median net financial wealth*	*Mean financial wealth*	*Mean net financial wealth*
Age 22–29	100	99	1,746	862
Age 30–39	700	200	3,571	2,613
Age 40–49	850	750	6,202	5,283
Age 50–59	1,750	1,750	10,657	10,102
Age 60–69	1,750	1,750	13,222	13,059
Age 70+	1,750	1,750	8,505	8,473
Compulsory education	350	200	4,370	3,868
Education to age 18	1,750	1,750	9,363	8,727
Education beyond 18	2,100	1,750	13,363	12,416
Social class AB	4,500	3,850	18,765	17,802
Social class C1	1,750	1,750	8,547	7,757
Social class C2	750	750	4,744	4,064
Social class D	300	100	3,173	2,711
Social class E	0	0	1,571	1,482
Housing/Pension:				
H=0; P=0	0	0	1,232	928
H=1; P=0	1,100	750	6,886	6,253
H=0; P=1	750	350	4,589	3,664
H=1; P=1	2,100	1,750	8,880	7,407
H=0; P=retired	100	100	2,808	2,770
H=1; P=retired	3,600	3,500	16,088	15,983
Income decile:				
1 (lowest)	0	0	1,085	935
2	100	100	2,585	2,437
3	100	100	2,129	1,981
4	450	350	5,140	4,773
5	750	750	6,217	5,740
6	1,100	750	7,412	6,586
7	1,750	1,600	11,333	10,456
8	1,950	1,750	10,282	8,852
9	3,500	2,350	16,547	15,209
10 (highest)	6,500	4,950	22,339	20,403
Income not asked	1,750	1,750	5,698	5,394
Income dk/refused	750	750	4,679	4,430
All	750	750	7,136	6,531

Note: See notes to Table 5.2.

Source: 1997–98 NOP-FRS data.

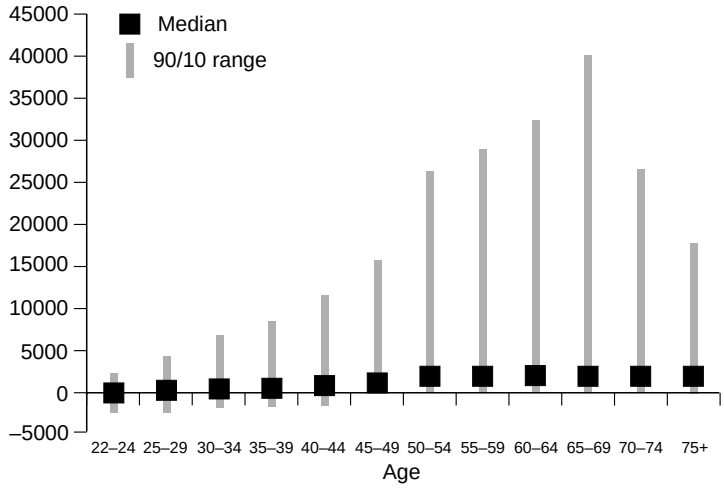
median gross financial wealth, i.e. that value of savings such that half the sample lie above and half below. In the second column, we present the median net financial wealth, where we have netted off the value of outstanding loans from the total savings held. The third and fourth columns present the arithmetic means of the same two variables.

Table 5.5 shows that wealth holdings rise with education, social class and income, as expected. Mean and median wealth levels also rise markedly with age, and the arguments of Chapter 2 suggest that this is not at all surprising. Indeed, in a lifetime sense, one would expect the younger households ultimately to be richer than the currently old by the time they themselves reach old age, due to the benefits of greater economic prosperity over their lifetimes.

More remarkable are the differences in wealth between home-owners and non-home-owners, which are noticeable for all types of pension holders. The retired non-home-owners have particularly low wealth. Given their age, one would have expected them to have had accumulated some saving, but one-quarter have no savings and another quarter have less than £100. These figures suggest that there is inequality not just in financial wealth but also in total wealth. We might expect households without housing or pensions to accumulate financial wealth because they have no other vehicles in which to accumulate their savings, but this is not happening. These individuals will be entirely dependent on the state (or any private pension income they may have, which will probably be limited) for resources during retirement. Of course, given the increased means testing of state benefits, there may be no point in accumulating financial wealth if an individual cannot accumulate sufficient to offset the loss of benefits through asset or income tests.

FIGURE 5.1

Median net wealth and 90/10 range by detailed age band



As mentioned above, there is substantial inequality in wealth holdings within groups as well as between groups. This within-group inequality widens with age, as can be seen from the further divergence of means from medians in the older age groups in Table 5.5. It is illustrated in more detail in Figure 5.1, which presents median net wealth, along with the 10^{th} and 90^{th} percentile points, by finer age categories. The square symbols in the figure are medians for each group and the line represents the range between the 90^{th} and 10^{th} percentiles.

The dispersion clearly increases with age until groups are over 70. All of the increases are above the median as the richer households within the group accumulate increasingly higher wealth than the bottom half; the median remains fairly constant after age 50, as confirmed by Table 5.5. At the bottom, the 10^{th} percentile point of the net wealth distribution is no longer negative after age 45, but it never rises above

zero. Once again, this age pattern may be a mixture of age and cohort effects, but nevertheless the stylised fact remains: if one is looking at a cross-section, there is greater inequality in wealth and saving within older groups than within younger groups.

5.4 Empirical Evidence on Portfolio Choices

As well as looking at detailed asset-ownership rates and aggregate financial wealth patterns, we can investigate how the ownership of more detailed savings product types (such as PEPs and TESSAs, or National Savings products) varies across and within groups of the population using the NOP-FRS data. We can also look at the proportion of wealth that is stored in each asset type to document portfolios in more detail. To do this, we break assets down into six classes: (1) savings and deposit accounts (including those at banks and building societies and National Savings); (2) Tax-Exempt Special Savings Accounts; (3) National Savings certificates and bonds; (4) Personal Equity Plans; (5) direct holdings of shares; and (6) unit trusts, investment trusts and government bonds.

In Tables 5.6a to 5.6c, we show how ownership of products in these six detailed asset classes varies by certain characteristics — age band, education and broad portfolio type (i.e. housing and pension status as defined above) respectively — across the whole sample. All assets display the familiar pattern, with ownership rates increasing across age groups until the final group (aged 70+), where ownership rates are lower than for the 60- to 69-year-olds.

Ownership of the most risky assets — PEPs, shares and investment trusts — increases most steeply by age group amongst pre-retirement households. In some groups, ownership rates of these assets are high — 16

per cent of 50- to 59-year-olds have a PEP, for example, and 10 per cent of this age group have investment trusts.

TABLE 5.6a

Asset-ownership rates by age band

Full sample

Proportion of individuals with:	*Age 22–29*	*Age 30–39*	*Age 40–49*	*Age 50–59*	*Age 60–69*	*Age 70+*	*All*
Deposit accounts	0.55	0.60	0.62	0.62	0.62	0.60	0.60
TESSAs	0.03	0.04	0.06	0.09	0.09	0.05	0.06
National Savings	0.15	0.20	0.26	0.29	0.32	0.30	0.25
PEPs	0.05	0.08	0.10	0.16	0.14	0.06	0.10
Shares	0.12	0.20	0.25	0.28	0.26	0.18	0.21
Invest./unit trusts	0.03	0.04	0.06	0.10	0.11	0.06	0.07

Source: 1997–98 NOP-FRS data.

TABLE 5.6b

Asset-ownership rates by education

Full sample

Proportion of individuals with:	*Compulsory education only*	*Educated to age 18*	*Educated beyond age 18*	*All*
Deposit accounts	0.55	0.65	0.69	0.60
TESSAs	0.04	0.07	0.10	0.06
National Savings	0.20	0.30	0.33	0.25
PEPs	0.06	0.12	0.20	0.10
Shares	0.16	0.27	0.34	0.21
Invest./unit trusts	0.04	0.09	0.14	0.07

Source: 1997–98 NOP-FRS data.

TABLE 5.6c

Asset-ownership rates by broad portfolio type

Full sample

Proportion of individuals with:	*H=0 P=0*	*H=1 P=0*	*H=0 P=1*	*H=1 P=1*	*H=0 Ret'd*	*H=1 Ret'd*	*All*
Deposit accounts	0.43	0.64	0.63	0.72	0.49	0.69	0.60
TESSAs	0.01	0.06	0.05	0.09	0.01	0.10	0.06
National Savings	0.12	0.26	0.20	0.31	0.19	0.38	0.25
PEPs	0.02	0.10	0.09	0.17	0.02	0.15	0.10
Shares	0.05	0.24	0.20	0.36	0.07	0.30	0.21
Invest./unit trusts	0.01	0.07	0.06	0.10	0.02	0.13	0.07

Source: 1997–98 NOP-FRS data.

On average, 21 per cent of the sample own shares directly, and once again this corresponds closely to other estimates — for example, from the FES (presented in Chapter 4). Amongst the most-educated group, the ownership rate of shares is higher (34 per cent) and, if one were to focus on the older individuals within this group, the incidence would be higher still (47 per cent of 50- to 69-year-olds with education past age 18 own shares, for example).

Across the sample as a whole, the tables show the increased penetration of PEPs in recent years. The incidence of PEP ownership is now at least as great as that of TESSA ownership, whereas this was far from being the case in the 1991–92 data documented by Banks, Dilnot and Low (1994).[35]

Table 5.6c shows that the only assets held in any real proportion by those without housing or pension wealth are deposit accounts and National Savings products. Ownership rates of all other classes of assets are less than one in 20, representing the relative lack of engagement of this group with the savings market. Once again, this shows the inequality in asset holding, driven by wealth differences, between those with almost no products and those with many — the group with housing and pension wealth are much more likely to own shares of some form, PEPs and unit trusts.

In Table 5.7, we provide a detailed analysis of the average balances held in each of these asset groups for

[35]As one disaggregates the portfolio, the chance of misclassification errors increases. The proportion of individuals reporting ownership of a TESSA, for example, looks low compared with official statistics which would suggest around one in 10 individuals owning an account. One possible explanation is confusion amongst parts of the sample who mistakenly class their TESSA as a normal interest-bearing account at the bank or building society.

TABLE 5.7

Asset ownership and values by age band

Full sample

Asset class	*Age 22–29*	*Age 30–39*	*Age 40–49*	*Age 50–59*	*Age 60–69*	*Age 70+*	*All*
Deposit account							
Proportion with	0.551	0.603	0.618	0.616	0.620	0.604	0.603
*Median wealth	750	1200	2500	4200	7250	2600	1950
*Mean wealth	10449	5350	8882	15135	18649	12471	10449
*Mean asset value	1567	2792	4139	6430	8614	6827	5019
*Mean asset share	0.802	0.742	0.705	0.668	0.682	0.778	0.728
TESSAs							
Proportion with	0.025	0.038	0.059	0.087	0.092	0.050	0.058
*Median wealth	4550	7862	12450	19750	22600	18500	15500
*Mean wealth	10430	14635	23920	34765	40121	33875	29609
*Mean asset value	2909	4416	5332	6908	7600	7472	6270
*Mean asset share	0.527	0.503	0.424	0.390	0.390	0.428	0.426
National Savings							
Proportion with	0.146	0.196	0.259	0.292	0.320	0.301	0.251
*Median wealth	1050	2200	3850	7950	9450	3850	3950
*Mean wealth	4363	8010	12490	21040	24386	16221	15617
*Mean asset value	888	1001	1462	2641	3723	2897	2265
*Mean asset share	0.356	0.272	0.236	0.223	0.242	0.292	0.262
PEPs							
Proportion with	0.047	0.076	0.103	0.156	0.144	0.062	0.097
*Median wealth	4250	7700	13000	20600	26100	24250	16600
*Mean wealth	10424	16696	26765	36600	43726	45731	32254
*Mean asset value	4235	5804	8472	10934	11510	12350	9452
*Mean asset share	0.557	0.501	0.473	0.441	0.412	0.420	0.456
Privatisation shares[a]							
Proportion with	0.077	0.150	0.198	0.225	0.223	0.149	0.171
*Median wealth	3450	4500	6600	11100	16750	11000	8450
*Mean wealth	7876	10576	16224	25053	3190	35812	20988
*Mean asset value	2224	2657	3125	3440	4073	3758	3322
*Mean asset share	0.504	0.459	0.401	0.309	0.270	0.306	0.036
Other shares							
Proportion with	0.048	0.079	0.091	0.108	0.092	0.061	0.080
*Median wealth	3600	5500	9250	18275	28000	18275	11450
*Mean wealth	9609	13964	22742	36262	48558	41471	29362
*Mean asset value	3708	4351	6782	9160	10412	10809	7641
*Mean asset share	0.539	0.454	0.407	0.360	0.315	0.361	0.397
Invest./unit trusts[b]							
Proportion with	0.025	0.044	0.065	0.102	0.115	0.059	0.067
*Median wealth	5050	10150	17500	30000	34350	26100	24250
*Mean wealth	13320	21549	33760	49537	51905	48468	40757
*Mean asset value	5133	7565	12863	18127	21374	19132	16035
*Mean share	0.521	0.485	0.493	0.475	0.502	0.512	0.495

*Rows indicated with an asterisk are computed only for those people holding some assets in the relevant class.

[a]Comprises only privatised utilities and demutualised building societies.

[b]Includes government and corporate bonds.

Source: 1997–98 NOP-FRS data.

the different age groups of the sample. For each group, we show the proportion of individuals in the sample saying that they own the asset, and for these individuals we report the mean and median wealth values. We also present the mean value of the asset and the average share of wealth held in the asset for those who hold it.

The most striking feature of Table 5.7 is the degree to which those holding riskier assets — PEPs, both types of shares and unit trusts — are, on average, much richer than the rest of the population. Of the 9.7 per cent of people in the sample holding a PEP, for example, median wealth is £16,600 and mean wealth is £32,254. These numbers compare with £750 and £7,136 in the sample as a whole (see Table 5.4). These differences are present in all age groups, although they are more marked in groups aged over 40. But there are also differences in the wealth of holders of different types of risky assets. Owners of PEPs and shares other than those in privatised or demutualised companies tend, on average, to be richer than those holding equity from privatisation or demutualisation, and those holding unit trusts or investment trusts are richer still.

Despite this, the shares of the portfolio that these assets account for is quite high, at least for the households that own the asset. This suggests that there are relatively few individuals holding a large number of different classes of assets. More likely, the majority of the population will hold up to one or two types of risky asset in addition to their savings accounts. This is borne out in the sample of wealth holders, where the median number of asset types held (out of a possible seven) is two, and 90 per cent of the wealth holders hold four or fewer asset types. This is not to say portfolios are not diversified. If any of these holdings or products are

TABLE 5.8

Detailed portfolio shares by wealth decile

Sample: positive wealth only

Proportion of wealth held in:	Wealth decile (1=least wealthy, 10=most wealthy)				
	1	*2*	*3*	*4*	*5*
Deposit accounts	0.67	0.76	0.85	0.80	0.82
TESSAs	0.00	0.01	0.01	0.01	0.01
National Savings	0.31	0.18	0.07	0.06	0.02
PEPs	0.00	0.01	0.01	0.02	0.01
Privatisation shares[a]	0.01	0.03	0.04	0.08	0.10
Other shares	0.01	0.02	0.02	0.03	0.03
Invest./unit trusts	0.00	0.00	0.01	0.01	0.00
	6	*7*	*8*	*9*	*10*
Deposit accounts	0.54	0.50	0.50	0.44	0.40
TESSAs	0.03	0.07	0.10	0.08	0.05
National Savings	0.06	0.06	0.05	0.05	0.09
PEPs	0.04	0.10	0.17	0.14	0.13
Privatisation shares[a]	0.25	0.14	0.08	0.08	0.06
Other shares	0.07	0.10	0.04	0.06	0.09
Invest./unit trusts	0.02	0.04	0.06	0.14	0.19

[a]Comprises all privatised utilities and demutualised building societies.

Source: 1997–98 NOP-FRS data.

PEPs, unit trusts or investment trusts, it is possible to hold a wide variety of other assets indirectly through these vehicles.

To conclude the analysis, we investigate how portfolio shares vary by wealth level. As discussed in Chapter 3, classical portfolio theory predicts that wealthier households should hold a higher proportion of their wealth in risky assets, and this is borne out strongly in Tables 5.8 and 5.9. At the bottom end of the wealth distribution, financial wealth is held almost entirely in deposit accounts and National Savings, and although National Savings products are held throughout the distribution, they only represent a substantial portion of wealth for the least wealthy 10 or 20 per cent. In the middle of the distribution, the importance of other types of wealth — in particular, holdings of shares in

privatised industries or demutualised building societies — begins to increase. The top half of the distribution, as expected, has its wealth spread fairly evenly amongst all assets, although deposit accounts are still the most important component.

Table 5.8 also shows that, although TESSAs and PEPs become more important as wealth increases, after a point (around the 80th percentile point in the wealth distribution) their share of the portfolio declines since the total funds it is possible to hold in these forms is capped by the annual limits. As a result, in the top two wealth deciles, the proportion of total wealth held in PEPs and TESSAs declines and shares, unit trusts and investment trusts become much more important in the portfolio. In the very top decile, a significant portion of wealth is still held in National Savings, which indicates the dual nature of these products. Some accounts or products are safe assets appealing to low-wealth individuals, but there are also vehicles to hold high-yield medium- or long-term bonds, which presumably explains the increasing importance of National Savings at the very top of the distribution.

We complete this analysis by looking at broader portfolio shares by wealth decile. In Table 5.9, we have regrouped the assets into three classes according to their broad risk and liquidity characteristics. ‘Deposits’ are defined as liquid accounts paying interest. ‘Savings’ are defined as less liquid accounts although still paying a safe return (usually through interest). This group includes some of the deposit accounts of the previous tables, along with TESSAs and National Savings products. Finally, we define ‘investments’ to be the final four categories of the previous tables, i.e. PEPs, shares, unit trusts, investment trusts and bonds. These are characterised by having highly variable (and sometimes negative) returns.

TABLE 5.9

Broad portfolio shares by wealth decile

Sample: positive wealth only

Wealth decile	*Deposits*[a]	*Savings*[b]	*Investments*[c]
1	0.65	0.33	0.02
2	0.72	0.23	0.05
3	0.82	0.11	0.08
4	0.76	0.11	0.13
5	0.78	0.08	0.15
6	0.46	0.16	0.38
7	0.36	0.26	0.38
8	0.28	0.37	0.35
9	0.24	0.33	0.43
10	0.20	0.33	0.47

[a]Liquid savings accounts paying interest.
[b]Illiquid savings accounts paying interest.
[c]Investments with risky returns which may go down as well as up.

Source: 1997–98 NOP-FRS data.

At the bottom of the wealth distribution, wealth is held mainly in deposits, with the rest mainly in savings. The decline in the proportion held in savings accounts through the first three deciles reflects the relative importance of National Savings products for some types of low-wealth households. In contrast, in the top half of the wealth distribution, portfolios are very balanced, with almost half of wealth being held in investments within the wealthiest tenth of the population

It is worth questioning what this variation in asset ownership, wealth holdings and portfolios can tell us about the adequacy of saving in the population. After all, we have already shown, in Chapter 3, that many differences in wealth and saving behaviour can be rationalised by economic models that allow for differences in the level and riskiness of expected incomes and demographics. What these numbers serve to show, however, is that there are a lot of groups in the population who, for whatever reason, have very little engagement with the financial sector, and particularly the higher-return savings products.

This low engagement must be borne in mind when considering policy reform in the context of the withdrawal of the welfare state and increasing self-provision. Such a lack of participation in financial markets is worrying if the government is not intending to provide or maintain current income levels in periods of unemployment, sickness or retirement. This is perhaps one of the reasons why successive governments have tried to use the tax system to encourage a wider ownership of certain types of assets. The next chapter describes some of these in more detail and looks at whether the asset-ownership patterns described above may be a result of tax status as much as of the economic features of the assets themselves.

CHAPTER 6
The Taxation of Saving

The tax treatment of saving has become an important policy issue: changing the way that different forms of saving are taxed has been a way that successive governments have attempted to affect the overall level of saving and the form in which people save. This chapter sets out principles for taxing saving and discusses the current tax treatment of different assets in practice.

6.1 The Economics of Taxing Saving

There are three possible points for taxing saving — the initial deposits, the returns received on the investment (income and capital gain) and withdrawal. Table 6.1 illustrates the effect of imposing taxes at these different points on the net return to saving £100 out of gross earnings for one year. We assume a single income tax rate of 25 per cent and a 10 per cent rate of return on savings. The first thing to note is that taxing withdrawals only (exempt-exempt-taxed, EET — Regime A) has the same effect on the net value of savings as taxing deposits only (taxed-exempt-exempt, TEE — Regime B) if the marginal rate of tax is the same when income is paid into the fund as it is when savings are withdrawn. Regime A, an expenditure tax treatment, broadly corresponds to the current tax treatment of pensions with the exception of a tax-free lump sum on withdrawal. The tax treatment of TESSAs, PEPs and the new Individual Savings Accounts corresponds to Regime B. The timing of tax payments in pensions compared with that for an ISA does not

TABLE 6.1

Effect of different tax regimes on returns to saving

	Regime A EET Pensions	*Regime B TEE ISAs*	*Regime C TTE IBA*	*Regime D ETT*
Beginning of period				
Gross contribution	100	100	100	100
Net contribution	100	75	75	100
Gross return	10	7.50	7.50	10
Net return	10	7.50	5.625	7.50
End of period				
Gross fund	110	82.50	80.625	107.50
Net withdrawal	82.50	82.50	80.625	80.625

Note: The examples assume a single marginal tax rate of 25 per cent and a 10 per cent rate of return.

affect the net value of savings, although the tax-free lump sum makes pensions tax-favoured, as we show later.

In Regimes C and D, saving is taxed at two points. Regime C corresponds to the current tax treatment of interest-bearing accounts: contributions are made out of taxed income, the returns to saving are taxed but withdrawals are tax-free (taxed-taxed-exempt, TTE). The double taxation of income in this regime reduces the net return to saving compared with an expenditure tax treatment. In Regime D, contributions are made tax-free, but both returns and withdrawals are taxed (exempt-taxed-taxed, ETT). Regimes C and D correspond to a comprehensive income tax treatment of saving since income is taxed in the same way whether it comes from earnings or returns to investment. For the moment, we have assumed zero inflation. Inflation is not a problem for Regimes A and B, which do not tax investment income. In Regimes C and D, where investment income is taxed, difficulties arise — if investment income is taxed ignoring inflation, the post-

tax real return will fall still further below the pre-tax real return.

Which of these taxation regimes is optimal from the point of view of economic theory? Ideally, the tax system should not distort choices between consumption and saving. One interpretation of this is that the tax system should be neutral between consuming money today and saving money today. This is achieved by having a comprehensive income tax (Regime C or D) which taxes income irrespective of its source and irrespective of whether it is consumed or saved. However, under a comprehensive income tax, savings are treated as if they are simply another commodity, akin to consumption. Since people do not typically save for saving's sake, but instead as a means to future consumption, there is an argument for believing that the relevant concept of neutrality is not between consumption today and saving today but between consumption now and consumption in the future. It is precisely this neutrality in the impact of the tax system on the decision between current and future consumption that is achieved by tax systems of the EET or TEE type.

6.2 Taxing Saving in Practice

Different forms of saving are currently taxed in different ways. Table 6.2 shows the current tax treatment of different assets according to whether tax is imposed on contributions, returns or withdrawals. Housing and pensions, for example, are treated more favourably than under an expenditure tax, while, at the other extreme, the taxation of all nominal interest payments in interest-bearing accounts means that they receive a less favourable tax treatment than under a comprehensive income tax. However, the trend of policy over the past

20 years has been towards greater uniformity, with the erosion of mortgage interest tax relief and the introduction of PEPs, TESSAs and ISAs.

TABLE 6.2

Tax treatment of different assets

Asset	*Contributions*	*Returns*		*Withdrawals*
		Interest/ dividends	Capital gains	
Private pension, employee contributing	Exempt from income tax but subject to employer and employee NI	Exempt	Exempt	Taxed, except 25% tax-free lump sum; no NI
Private pension, employer contributing	Exempt from income tax, employer and employee NI	Exempt	Exempt	Taxed, except 25% tax-free lump sum; no NI
ISAs	Taxed	Exempt, plus 10% dividend tax credit paid	Exempt	Exempt
Owner-occupied housing	Taxed except mortgage interest tax relief at 10% on first £30,000	Exempt[a]	Exempt	Exempt
Interest-bearing accounts	Taxed	Taxed at 20% or 40%	NA	Exempt
Equity	Taxed	Taxed at 10% or 32.5%	Taxed at 20% or 40% above £7,200 threshold	Exempt
Life assurance	Taxed, although premiums on policies taken out before 1984 are exempt	Taxed at 20%	Taxed at 20%	Exempt

[a]This is the imputed income from owner-occupation which, until 1963, was taxed on the basis of the notional rental value of owner-occupied housing.

Housing

The current tax treatment of owner-occupied housing corresponds broadly to a pre-paid expenditure tax, i.e. payments are taxed but returns and withdrawals are tax-free.[36] The exception is the continuing presence of mortgage interest tax relief (MITR), currently paid at 10 per cent on the first £30,000 of a mortgage. The generosity of MITR has, however, been steadily eroded over the past 25 years. Before April 1974, MITR was available on the full value of a mortgage (as well as on home improvement loans). Since 1983, the limit has been frozen at £30,000, while the rate of relief has been

TABLE 6.3

The slow death of MITR

April 1974	Tax relief restricted to interest paid on home loans up to £25,000. Prior to this, tax relief was available on the interest on the full loan, whatever the size.
April 1983	Size of mortgage interest tax relief frozen at £30,000 (in nominal terms).
April 1988	Relief for home improvement loans abolished.
August 1988	Mortgage interest tax relief calculated per property rather than per tax unit.
April 1991	Tax relief at the investor's marginal rate replaced by tax relief at the basic rate of income tax.
April 1994	Rate of tax relief reduced to 20 per cent.
April 1995	Rate of tax relief reduced to 15 per cent.
April 1998	Rate of tax relief reduced to 10 per cent.
April 2000	Tax relief due to be abolished.

[36]Capital gains tax is payable in the case of second and other homes when they are sold.

steadily cut back in the 1990s. MITR is due to be abolished altogether from April 2000 (see Table 6.3).

Current home owners with mortgages will lose out from the abolition of MITR since borrowing to buy a house will be more expensive. However, future home owners should be unaffected if the additional cost of borrowing is reflected in a downward adjustment in house prices. Since the abolition of MITR in April 2000 has been pre-announced, the adjustment in house prices should already have occurred either at the time of the announcement or, more likely, as soon as people anticipated the change.

PEPs, TESSAs and ISAs

Personal Equity Plans (PEPs)

PEPs were introduced in 1987. They provided tax relief for limited direct and indirect holdings of equity. Contributions were not tax-deductible, but any dividend income or capital gains accruing within a PEP and withdrawals were tax-free. In addition, PEP holders were paid a 20 per cent dividend income tax credit up until April 1999. Take-up of PEPs was initially fairly slow, but it increased after subsequent changes — most importantly, the removal of a minimum holding period (1989) and an increase in the proportion of funds that could be held in a designated unit trust or investment trust from 50 per cent to 100 per cent (1992). The total amount of money held in PEPs by April 1999 (after which no new PEPs could be taken out) was £58.6 billion[37] and they were held by over one in 10 individuals (see Chapter 5). When ISAs were introduced in April 1999, PEPs were 'grandfathered' — no new

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

PEPs can be taken out, but existing PEPs can be kept open and continue to enjoy tax-free returns, although the dividend income tax credit has been reduced from 20 per cent to 10 per cent in line with that paid to ISA holders (see below for discussion of dividend tax credits).

Tax-Exempt Special Savings Accounts (TESSAs)

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. After five years, the full amount of capital deposited (but not the accumulated interest) could be rolled over into a new TESSA. Approximately 2 million TESSAs were opened during the first three months that they were available. Over the next six years, the total number of live TESSAs grew to nearly 5 million. By the end of 1997, the total amount invested in TESSAs was just over £27 billion.[38] Following the introduction of ISAs in April 1999, no new TESSAs can be taken out but existing TESSAs will be able to run their course under their current rules. On maturity, savers will be able to transfer the capital (but not the interest) into an ISA without affecting their ISA investment limits.

Individual Savings Accounts (ISAs)

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.

[38]Source: *Inland Revenue Statistics*, 1998, Stationery Office.

ISAs will be 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 cash. As with TESSAs, interest income on holdings of cash will be tax-free but, unlike TESSAs, there is no minimum holding period. As with PEPs, dividend income and capital gains accruing to stocks and shares held in an ISA are tax-free. The tax-free status of ISA returns has been guaranteed for 10 years. In addition, ISA holders will be paid a 10 per cent dividend tax credit which has been guaranteed until April 2004.

The government has set minimum standards for the *c*osts, *a*ccess and *t*erms of ISAs (hence CAT standards). These are voluntary, but all ISAs that meet the standards will receive a government kite mark. For example, a CAT-standard cash ISA must

- have no charges, apart from for extra services such as an additional statement;
- allow savers to put in or withdraw as little as £10 with only seven days' notice;
- pay a minimum interest rate of not more than 2 percentage points below base rates.

A CAT-standard stocks and shares ISA must

- have a maximum charge of 1 per cent of annual fund value (including stamp duty);
- have a maximum limit on minimum contributions of £50 a month or a £500 lump sum.

ISAs offer less-generous tax relief than the PEPs and TESSAs they replaced. The total amount that an individual could invest in a typical year in a single-company PEP, a general PEP and a TESSA combined

was £11,400 (£12,600 in the first year of a TESSA), compared with £5,000 in an ISA (£7,000 in the first year). Second, the rate at which the dividend tax credit is paid has been reduced from 20 per cent in a PEP to 10 per cent in an ISA. Assuming an annual investment return of 10 per cent and a 50 per cent dividend pay-out ratio, the total value of the dividend tax credit in an ISA is £27.78[39] on the maximum £5,000 investment. With the same annual investment return and dividend pay-out ratio, the 20 per cent dividend tax credit would have been worth £75[40] if the maximum £6,000 had been invested in a general PEP (and £120[41] assuming the maximum of £9,600 was invested in a single-company PEP and a general PEP).

However, ISAs are more attractive than PEPs to people who do not want the risk associated with equity investment. ISAs will also be more attractive than TESSAs to people who cannot afford to lock up their savings (typically, younger people and those with lower total wealth) since they do not have a minimum holding requirement. A total of £4.2 billion was invested in ISAs during April and May 1999 — double the amount that was invested in PEPs and TESSAs during the same two months of 1998. One-quarter of this was invested in stocks and shares, three-quarters in cash and life assurance.[42]

Assuming that individuals want to invest a combined total in cash and equity that is greater than the annual ISA limits, there is an issue as to whether it is more tax-effective to invest up to the total limit in stocks and shares, or to hold some cash as well.[43] Since interest-

[39]i.e. $0.1\times\{(5000\times0.05)/(1-0.1)\}$.
[40]i.e. $0.2\times\{(6000\times0.05)/(1-0.2)\}$.
[41]i.e. $0.2\times\{(9600\times0.05)/(1-0.2)\}$.
[42]HM Treasury, 1999.
[43]This issue is discussed in Shoven and Sialm (1999).

bearing accounts are the most heavily taxed form of saving, individuals would benefit most from putting cash in an ISA if the returns to holding cash and equity were the same. However, the total value of tax relief on equity may still be greater since equity returns are typically greater than the interest paid on cash deposits. In fact, the rate of return on equity has to be 3.6 times the interest paid on cash deposits for a basic-rate taxpayer (with capital gains below the threshold) to save more tax investing in stocks and shares than saving in cash deposits (assuming a 50 per cent dividend pay-out ratio).[44]

Dividends

The UK operates a partial imputation system for dividends. Part of a company's tax payment is imputed to shareholders and regarded as payment of income tax on dividends. When dividends are paid out, shareholders receive a tax credit which represents the amount of tax they are imputed to have already paid and which can be used to offset their tax liability on dividend income. From April 1999, the rate of tax on dividend income for lower- and basic-rate taxpayers is 10 per cent, which is also the rate of the tax credit. The tax rate for higher-rate taxpayers is 32.5 per cent. Shareholders' tax liability is assessed on the basis of grossed-up dividend income, which is equal to 100/90ths of the dividend payment received. For lower- and basic-rate taxpayers, the value of the tax credit exactly matches their income tax liability and they need pay no further tax. Higher-rate taxpayers have to pay an extra 25 pence for every £1 of dividend income they

[44]i.e. $0.2/\{0.1\times(0.5/0.9)\}$. Note that if the rate of dividend tax credit were 20 per cent, the return on equity would only have to be 1.6 times the interest paid on cash deposits, i.e. $0.2/\{0.2\times(0.5/0.8)\}$.

TABLE 6.4

Tax treatment of dividends in pensions, PEPs and ISAs

	PEPs and pension funds before July 97	*Pension funds, July 97 to April 99*	*PEPs, July 97 to April 99*	*Pension funds from April 99*	*PEPs and ISAs from April 99*
Corporation tax rate	33%	31%	31%	30%	30%
Dividend tax credit	20%	0%	20%	0%	10%
Gross profit	100	100	100	100	100
Dividend payment	67.00	69.00	69.00	70.00	70.00
Grossed-up dividend	83.75	86.25	86.25	77.78	77.78
Tax refund	16.75	0	17.25	0	7.78
Net dividend income	*83.75*	*69.00*	*86.25*	*70.00*	*77.78*

receive, making their total tax payment 36.11 pence, equal to 32.5 per cent of the grossed-up dividend. Holders of ISAs receive a refund equal to the value of the tax credit.

Before July 1997, dividend tax credits were repaid to pension funds as well as to other non-taxpaying shareholders. At that time, the rate of tax for lower- and basic-rate taxpayers (and the rate of the tax credit) was 20 per cent. Every £1 of dividend income paid out was therefore worth £1.25 to pension funds. The repayment of dividend tax credits to pension funds was abolished in the July 1997 Budget. Table 6.4 illustrates the effect of this change. The examples assume that gross profits of 100 pence are distributed as dividends. Total dividend income received is affected by the rate of dividend tax credits paid — but also by the rate of corporation tax, since the lower the rate of corporation tax, the higher the level of dividend income.

Before July 1997, the rate of corporation tax was 33 per cent, leaving a dividend payment of 67 pence. In addition, pension funds received a dividend tax credit worth 16.75 pence, making total dividend income of

83.75 pence. After July 1997, pension funds were no longer refunded the value of the dividend tax credit. At the same time, however, the rate of corporation tax was reduced from 33 per cent to 31 per cent, increasing dividend payments to 69 pence. Overall, total dividend income received by pension funds in our example fell from 83.75 pence to 69 pence.

Between July 1997 and April 1999, 20 per cent dividend tax credits continued to be repayable to shares held in PEPs. In addition to a dividend payment of 69 pence, holders of PEPs received a tax refund worth 17.25 pence, making total dividend income of 86.25 pence. From April 1999, the rate of the dividend tax credit paid to ISAs and 'grandfathered' PEPs[45] was reduced to 10 per cent. Every £1 of dividend income was worth £1.25 to PEP holders, but is now worth only £1.11 to ISA holders. However, at the same time, the rate of corporation tax was reduced further to 30 per cent. The combined effect of these changes was to reduce total dividend income in the example from 86.25 to 77.78 pence.

Pensions

Full tax relief is given at the marginal tax rate on individuals' contributions into private pensions.[46] No tax is incurred on returns accruing within a pension fund and, before July 1997, 20 per cent dividend tax credits were paid to equity holdings in pension funds. In retirement (before age 75), holders of defined

[45]From April 1999, no new PEPs can be taken out. However, existing PEPs continue to receive dividend tax credits.

[46]In the case of personal pensions, individuals can invest tax-free up to annual earnings- and age-related limits set as a proportion of earnings, and an overall earnings cap. With the introduction of stakeholder pensions, this will be changed, for all defined contribution plans, to £3,600 or age–earnings limits, whichever is the higher.

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 abolition of 20 per cent dividend tax credits paid to pension funds in July 1997 reduced the relative tax-favoured position of pensions (see above). However, pensions remain tax-favoured compared with so-called 'tax-free' ISAs.[47] Compared with a private pension, ISAs have the attraction of not tying up savings until retirement. The investment returns in ISAs (if they are like those in PEPs) and private pensions are very similar.[48] 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. But, in spite of the abolition of the 20 per cent dividend tax credit, pensions remain more favourably taxed than ISAs. Pensions are particularly attractive to higher-rate taxpayers because of the opportunity for tax-rate smoothing, i.e. the possibility for individuals to reduce their overall tax burden by getting relief on contributions at a higher rate than that at which tax is paid on withdrawal.[49] For basic-rate taxpayers, whether

[47]For a fuller discussion of the taxation of pensions and ISAs, see Emmerson and Tanner (1999).

[48]The median annualised real return over the last five years in PEPs investing in UK companies was 10 per cent — the same as pension funds investing in UK equities (Moneywise website, 1 August 1999).

[49]In principle, the personal tax allowance and the 10p tax band create an opportunity for basic-rate taxpayers to do tax-rate smoothing. In practice, most people will receive income from the basic state pension and the

or not pensions are more tax-effective than ISAs depends on whether the value of the tax-free lump sum in a pension is more 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.

Table 6.5 summarises the returns to a basic-rate taxpayer investing in a pension or a tax-free saving scheme for 30 years, assuming different annual investment returns. We include the case of a tax-free saving scheme with a 20 per cent dividend tax credit (as was the case with PEPs) and a pension with a tax-free lump sum and a 20 per cent dividend tax credit (as was the case before July 1997) for comparison. In each case, the value of the fund after 30 years is expressed relative

TABLE 6.5

The impact of tax on the return to saving

	Annual real return		
	5%	*10%*	*15%*
Pension			
Individual contributions, tax-free lump sum	10.49%	10.49%	10.49%
Employer contributions, tax-free lump sum	31.72%	31.72%	31.72%
Individual contributions, tax-free lump sum, plus 20% dividend tax credit	21.84%	37.22%	55.36%
Tax-free saving scheme			
No dividend tax credit	0.00%	0.00%	0.00%
10% dividend tax credit for 5 years	0.20%	0.57%	1.10%
10% dividend tax credit for 30 years	4.72%	10.76%	17.47%
20% dividend tax credit for 30 years	10.27%	24.19%	40.60%

Note: These figures represent the additional return over 30 years compared with investing in a tax-free saving scheme where no dividend tax credits are paid. These examples are based on an individual earning £15,000 a year who invests 10 per cent of his net earnings for 30 years. The marginal income tax rate is 23 per cent and the rate of employee NI contributions is 8.4 per cent.

Source: Emmerson and Tanner, 1999.

compulsory level of secondary provision equal to the value of the tax-free personal allowance and the 10p band.

to saving the same amount in a tax-free savings account with no dividend tax credit. The 1999–2000 rates of income tax and National Insurance (NI) are assumed to apply.[50]

The effect of the tax-free lump sum in a pension is to increase the net value of the final fund by 10.49 per cent whatever the annual investment return.[51] If the annual rate of return is less than 9.8 per cent, the net value of the pension fund after 30 years is greater than the value of the same amount invested in a saving scheme with a 10 per cent dividend tax credit for the full 30 years. If the annual rate of return is higher than this, the value of a 10 per cent dividend tax credit is greater than that of the tax-free lump sum.

An annual real rate of return of 9.8 per cent may not seem unreasonable, given a median annualised real return to PEPs and pensions of 10 per cent over the last five years. Also, the greater liquidity of an ISA may be enough to compensate people for a slightly lower return. However, this assumes that 10 per cent dividend tax credits are paid for the full 30 years in the tax-free saving scheme. In fact, the government has only guaranteed the dividend tax credit 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.

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[50]i.e. 23 per cent income tax, 9.2 per cent employer NI and 8.4 per cent employee NI. We assume that the same NI rate is paid by people saving in a private pension and in a saving scheme. In effect, we assume that the individual has already decided to opt out of the state scheme and is choosing where to invest the marginal pound of contributions.

[51]i.e. $[(1–0.084)\times\{0.25+0.75\times(1–0.23)\}/(1–0.23–0.084)]–1$.

Finally, consider the case of pension contributions made by the employer. If an individual contributes to a pension, the contributions are exempt from income tax but will have been subject to employee NI at the rate of 8.4 per cent. The employer must also pay NI on the individual's gross income at a rate of 9.2 per cent. If, on the other hand, the employer contributes to the pension, the contributions are not subject to employee or employer NI. The effect of this is to increase the tax-favourable status of pensions, over and above a tax-free savings vehicle with no dividend tax credit, to 31.7 per cent.[52]

6.3 Conclusions

Different savings products are still taxed in different ways, in spite of a move towards greater uniformity in recent years, and pensions remain the most tax-favoured form of saving. Ideally, the tax treatment of saving should not distort individuals' choices regarding the form in which to save. In the absence of a clear market failure that results in people saving too little (or too much) in a particular vehicle, this means that different types of saving should be taxed in the same way. Otherwise, decisions over what form to save in are likely to be driven by tax incentives rather than by the underlying rates of return and individuals' preferences for risk and liquidity. The introduction of targeted tax incentives typically results in a windfall gain for people who already have savings that they can transfer to the tax-free saving scheme. Also, targeted tax incentives typically exclude people who, for whatever reason, do not want to hold their savings in the tax-free savings vehicle (in the case of PEPs, for example, because they did not want equity risk, or, in the case of TESSAs,

[52] i.e. $[(1+0.092)\times\{0.25+0.75\times(1-0.23)\}/(1-0.084-0.23)]-1$.

because they did not want to tie up savings for five years).

One possible reason for the government to introduce targeted tax incentives is that it thinks that people will not choose to save enough in a particular form. In the case of pensions, for example, the government may want to encourage people to hold their wealth in a form that they are required to annuitise on retirement, rather than running down their wealth and relying on means-tested benefits in retirement. However, the potential danger is that, as a result of the tax advantage of pensions compared with other forms of savings, people hold more wealth than they would otherwise choose to in a relatively illiquid form that they cannot draw on until retirement.

Other tax-favoured saving schemes, such as ISAs, have been introduced with the wider aim of encouraging more saving. The standard life-cycle model has no clear predictions for the effect of tax incentives on the level of saving. Increasing the rate of return makes it more attractive to save. But with a higher rate of return, people can afford to consume more tomorrow and more today, and this will tend to raise both future and current consumption. The overall effect of an increase in the rate of return on the level of saving depends on the balance of these two effects and so is *a priori* ambiguous. Moreover, targeted tax incentives, which only increase the rate of return to saving in particular forms, are likely to result simply in portfolio reallocation and windfall gains to people who have savings to transfer.

However, recent behavioural theories (discussed in Chapter 3) suggest possible ways in which tax incentives might have an impact on saving. One example is the importance of information in decisions about saving. The introduction of tax incentives is

typically accompanied by advertising both from the government and from the financial services industry (and even from employers in the case of share option schemes), which may have a positive effect on the overall level of saving. Second, if a lack of self-control is a reason for people not saving, then the sense of immediate benefit provided by upfront tax relief may be an important psychological motivating factor in encouraging people to save when the benefits of deferred consumption are a long way off. Finally, people who operate 'mental accounts' — i.e. those who regard different types of saving as not being perfect substitutes for each other — may increase their saving in tax-favoured products without reducing their saving in other assets. This could be reinforced by the presence of minimum holding periods. Some empirical evidence from the US supports the potential importance of these effects, although preliminary UK research on the impact of TESSAs suggested little additional saving (see Bernheim (1999) and Banks, Blundell and Dilnot (1994)). Clearly, this is an area where more research is required.

CHAPTER 7
Conclusions

The shift in responsibility for welfare provision from the government to individuals has made saving and wealth a key policy issue. The clearest example of this is in the area of pensions. The level of support provided by the government in retirement has been falling in recent years and will fall further in the future. As individuals are increasingly required to provide for their own retirement, it is important to know how they are responding to the changing policy environment and the impact this is having on decisions about saving.

A very real problem in addressing this issue is a lack of information available on the level — and types — of wealth that people have. The official statistics on the distribution of wealth are collated by the Inland Revenue from inheritance tax returns. They tell us something about the way the majority of wealth is distributed among the population (or, rather, not distributed, since the top half of the wealth distribution accounts for 92 per cent of total wealth), but they tell us much less about the wealth of the majority. Household surveys in the UK collect a lot of information on people's income and spending, but not about their wealth. This is in contrast to the US, where the Survey of Consumer Finances and the Panel Survey of Income Dynamics collect detailed information on people's saving and wealth. In the UK, the lack of survey data has prohibited a detailed analysis of issues relating to household saving.

This report has brought together the evidence on household wealth that is currently available and

provided an economic framework that can be used to consider households' saving choices alongside their other economic decisions about consumption and labour supply. Ultimately, an important policy question that needs to be addressed is whether households are saving enough for their retirement. This report does not provide a direct answer to this question, but instead considers the issues that the question raises. The first issue is how much people are currently saving. To answer this, we need to know not only about savings held in bank and building society accounts and stocks and shares but also about housing, pensions and life assurance. The second issue is what factors determine how much people save — or should be saving. There is no simple answer to the question of how much people should save. The defining feature of saving as an economic decision is that it is a dynamic lifetime choice which depends on expected future resources, labour supply choices, family formation decisions and the level of government welfare provision across people's entire lifetimes.

The evidence presented here shows that households do not typically hold a lot of financial wealth. The median level of wealth held in financial assets (banks and building societies, stocks and shares) is £750. The majority of wealth is held in illiquid assets — pensions and housing — which may be appropriate for long-term saving for retirement, for example. (It should also be pointed out that these are the forms of saving that have been treated most favourably by the tax system.) But the amount of financial wealth that people have represents the resources that they can use to cushion the effects of unanticipated changes in income (or spending needs). This raises an important issue for stakeholder pensions. If most people have low levels of liquid assets, should the government really use the tax system to encourage them to lock up their wealth for the long term when

their income and spending needs might fluctuate in the short or medium term?

We find that levels of wealth, and the probability of holding different assets, are strongly linked to people's age, income and education (where education may be a good indicator of people's total lifetime resources). We also find the greatest inequality in wealth holdings by age among older age groups. However, it should not be surprising that levels of wealth — and wealth inequality — increase with age. Since the stock of wealth that people have represents their accumulated saving in the past, older households will simply have had more time to accumulate wealth.

The 1980s were a period of enormous change in wealth holdings. There was a spread in ownership of key assets — housing, stocks and shares and private pensions — across the population. In all three cases, government policy was crucial in driving the changes. Increased share ownership was associated with the privatisation of public utilities; 'right-to-buy' policies increased home ownership; and the introduction of personal pensions encouraged private pension provision. In the case of share ownership, there was a pronounced increase in the proportion of households owning shares at the time that British Telecom and British Gas were privatised in the mid-1980s, and, even by the late 1990s, many shareholders owned shares only in privatised companies. By the end of the 1980s, the profile of share owners had changed quite significantly — they were younger on average and had lower levels of education, although they still had relatively high incomes. In the case of housing, the biggest increases in home ownership over the period 1978–96 were actually among older households, which were likely to have benefited most from the right-to-buy policy.

In spite of a proliferation of new savings products, most people still hold most of their wealth in deposit accounts at bank and building societies. Government tax-free savings products have been taken up widely — by 1998, PEPs were held by one-tenth of the population, for example. But both PEPs and TESSAs were held predominantly by richer (and older) individuals. The median level of wealth of people with PEPs, for example, was £16,600, while the median wealth of people with TESSAs was £15,500. It remains to be seen whether take-up of Individual Savings Accounts will be more widespread, although they are likely to be more attractive than TESSAs to younger and poorer households because they do not have a minimum lock-in period.

Ten per cent of households have no assets at all. It is surprising that, at the same time as levels of share ownership and home ownership have been increasing, the number of households without any assets has also been rising. Of course, not all these households are financially excluded since, for many of them, having no wealth is likely to be temporary. Many of the households with no wealth are young. Changing patterns of education, labour supply and family formation may mean that they are simply delaying saving. Also, more widespread access to credit reduces the need for all households to have precautionary balances. A greater cause for concern is that a large part of the group with no assets are elderly and, with no opportunity for wealth accumulation in the future, they are likely to be dependent on means-tested benefits.

There is a strong overlap between those with no wealth and the poorest groups in society in terms of income. The increase in income inequality during the 1980s has been well documented, as has the emergence of new groups of poor in the population, including

single parents and young workless households. Much less has been known about how patterns of wealth distribution changed over the same period. Looking at the official statistics on wealth distribution shows that wealth inequality fell. But this finding is based on comparing the middle of the wealth distribution with the top. In fact, there has been an increase in inequality in wealth holdings between the new stakeholding classes and those at the bottom of the wealth distribution. The groups who make up the new poor in terms of income are also the least likely to have any wealth. The fact that they are not able to save means that they are more likely to be poor and dependent on means-tested benefits in the future as well as now.

References

Atkinson, A. and Harrison, A. (1978), *Distribution of Personal Wealth in Britain*, Cambridge: Cambridge University Press.

Attanasio, O., Banks, J. and Tanner, S. (1998), 'Asset holding and consumption volatility', Institute for Fiscal Studies, Working Paper no. 98/8.

— and Weber, G. (1994), 'The UK consumption boom: aggregate implications of microeconomic evidence', *Economic Journal*, vol. 104, pp. 1269–302.

Banks, J. and Blundell, R. (1994a), 'Household saving behaviour in the UK', in J. Poterba (ed.), *International Comparisons of Household Saving*, Chicago: University of Chicago Press.

— and — (1994b), 'Taxation and savings incentives in the UK', in J. Poterba (ed.), *Household Saving and Public Policy*, Chicago: University of Chicago Press.

—, — and Brugiavini, A. (1999), 'Risk pooling, precautionary saving and consumption growth', Institute for Fiscal Studies, Working Paper no. 99/19.

—, — and Dilnot, A. (1994), 'Tax-based savings initiatives in the UK', Institute for Fiscal Studies, mimeo.

—, — and Preston, I. (1994), 'Life-cycle expenditure allocations and the consumption costs of children', *European Economic Review*, vol. 38, pp. 1391–410.

—, — and Tanner, S. (1998), 'Is there a retirement saving puzzle?', *American Economic Review*, vol. 88, pp. 769–88.

—, Dilnot, A. and Low, H. (1994), *The Distribution of Wealth in the UK*, London: Institute for Fiscal Studies.

— and Tanner, S. (1999), 'Perceptions of saving: an economic analysis of focus group evidence', Institute for Fiscal Studies, mimeo.

Bayer, P. J., Bernheim, B. D. and Scholz, J. K. (1996), 'The effects of financial education in the workplace: evidence from a survey of employers', Stanford University, Working Paper no. 96-011.

Bernheim, B. D. (1991), *The Vanishing Nest Egg: Reflections on Saving in America*, New York: Priority Press.

— (1993), *Is the Baby Boom Generation Preparing Adequately for Retirement?*, Summary Report, New York: Merrill Lynch.

— (1999), 'Taxation and saving', National Bureau of Economic Research, Working Paper no. W7061.
— and Garrett, D. M. (1996), 'The determinants and consequences of financial education in the workplace: evidence from a survey of employees', Stanford University, Working Paper no. 96-007.
—, — and Maki, D. M. (1997), 'Education and saving: the long term effects of high school financial curriculum mandates', Stanford University, Working Paper no. 97-012.
Blanchard, O. and Mankiw, N. G. (1988), 'Consumption beyond certainty equivalence', *American Economic Review (Papers and Proceedings)*, vol. 78, pp. 173–7.
Blundell, R., Browning, M. and Meghir, C. (1994), 'Consumer demand and the life-cycle allocation of household expenditures', *Review of Economic Studies*, vol. 61, pp. 57–80.
Browning, M. and Lusardi, A. (1996), 'Household saving: micro theories and micro facts', *Journal of Economic Literature*, vol. 34, pp. 1797–855.
Campbell, J. (1987), 'Does saving anticipate declining labor income? An alternative test of the permanent income hypothesis', *Econometrica*, vol. 55, pp. 1249–73.
Davies, J. and Shorrocks, A. (1999), 'The distribution of wealth', in A. B. Atkinson and F. Bourguignon (eds), *The Handbook of Income Inequality*, North Holland Press, forthcoming.
Davis, J. and Weber, G. (1991), 'Credit and British consumers: some micro evidence', *Fiscal Studies*, vol. 12, no. 2, pp. 61–84.
Deaton, A. S. (1992), *Understanding Consumption*, Oxford: Clarendon Press.
Dilnot, A., Disney, R., Johnson, P. and Whitehouse, E. (1994), *Pensions Policy in the UK: An Economic Analysis*, London: Institute for Fiscal Studies.
Disney, R., Grundy, E. and Johnson, P. (eds) (1997), *The Dynamics of Retirement: Analyses of the Retirement Surveys*, Department of Social Security, Research Report no. 72, London: Stationery Office.
Duesenberry, J. S. (1949), *Income, Saving, and the Theory of Consumer Behaviour*, Cambridge, MA: Harvard University Press.
Emmerson, C. and Tanner, S. (1999), 'A note on the tax treatment of pensions and Individual Savings Accounts', Institute for Fiscal Studies, mimeo.
Friedman, M. (1957), *A Theory of the Consumption Function*, Princeton, NJ: Princeton University Press.

Giles, C., Johnson, P., McCrae, J. and Taylor, J. (1996), *Living with the State: The Incomes and Work Incentives of Tenants in the Social Rented Sector*, London: Institute for Fiscal Studies.

Gollier, C. (1999), 'What does the classical theory have to say about household portfolios?', Université de Toulouse, mimeo.

Good, F. (1980), 'Estimates of the distribution of personal wealth', *Economic Trends*, November.

Goodman, A., Johnson, P. and Webb, S. (1997), *Inequality in the UK*, Oxford: Oxford University Press.

Haliassos, M. and Bertaut, C. (1995), 'Why do so few hold stocks?', *Economic Journal*, vol. 105, pp. 1110–29.

Hall, R. E. (1978), 'Stochastic implications of the permanent income hypothesis: theory and evidence', *Journal of Political Economy*, vol. 96, pp. 339–57.

Hansen, L. P. and Jagannathan, R. (1991), 'Implications of security market data for models of dynamic economies', *Journal of Political Economy*, vol. 99, pp. 225–62.

HM Treasury (1999), 'Double the savings in ISA's', Press Release 107/99.

Hurd, M. D. (1989), 'Mortality risk and bequests', *Econometrica*, vol. 57, pp. 779–813.

Johnson, P. and Tanner, S. (1998), 'Ownership and the distribution of wealth', *Political Quarterly*, vol. 69, pp. 365–74.

Kempson, E. and Whyley, C. (1999), *Kept Out or Opted Out? Understanding and Combating Financial Exclusion*, Bristol: Policy Press.

King, M. A. (1990), 'Discussion', *Economic Policy*, vol. 11, pp. 383–7.

— and Leape, J. (1987), 'Asset accumulation, information and the life cycle', National Bureau of Economic Research, Working Paper no. 2392.

— and — (1998), 'Wealth and portfolio composition: theory and evidence', *Journal of Public Economics*, vol. 69, pp. 155–93.

Kotcherlakota, N. R. (1996), 'The equity premium: it's still a puzzle', *Journal of Economic Literature*, vol. 34, pp. 42–71.

Laibson, D. (1994), 'Self control and saving', PhD thesis, Massachusetts Institute of Technology.

— (1997), 'Golden eggs and hyperbolic discounting', *Quarterly Journal of Economics*, vol. 112, pp. 443–77.

—, Repetto, A. and Tobacman, J. (1998), 'Self-control and saving for retirement', *Brookings Papers on Economic Activity*, 1:98, pp. 91–196.

Low, H. (1998), 'Simulation methods and economic analysis', PhD thesis, University College London.

Muellbauer, J. and Murphy, A. (1990), 'Is the UK balance of payments sustainable?', *Economic Policy*, vol. 11, pp. 345–83.

Office of Fair Trading (1997) *Consumer Detriment under Conditions of Imperfect Information*, London: Stationery Office.

— (1999), *Vulnerable Consumers and Financial Services*, London: Stationery Office.

Pagano, M. (1990), 'Discussion', *Economic Policy*, vol. 11, pp. 387–90.

Shoven, J. and Sialm, C. (1999), 'Asset location in tax-deferred and conventional savings accounts', National Bureau of Economic Research, Working Paper no. W7192.

Thaler, R. H. (1990), 'Anomalies, saving, fungibility and mental accounts', *Journal of Economic Perspectives*, vol. 4, pp. 193–205.