The distribution of assets, income and liabilities across UK households: results from the 2005 NMG Research survey

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This article summarises the key results from the latest survey carried out for the Bank by NMG Research about the state of household finances. A relatively small proportion of households accounted for a large amount of the assets owned, income earned and debts owed by the whole sample. The majority of households appeared to be comfortable with their finances. But there were a small number of households who appeared to be in distress: typically they had below-average incomes and no or not many assets to draw on. The proportion of the sample in financial distress was little changed from a year earlier. The survey indicated that very few people viewed bankruptcy as a solution to debt problems.

Introduction

In September 2005, NMG Research conducted a survey of around 2,000 individuals which asked a range of questions about assets, income and debts. The answers to those questions provide a useful snapshot of the state of household finances.(1) The latest survey is the third that the Bank has commissioned NMG Research to conduct on this issue.(2) Taken together with information from successive waves of the British Household Panel Survey (BHPS), the latest survey can shed light on trends in financial distress at the household level.(3) However, survey data have to be interpreted with care: the NMG Research survey only asks a sample of the population and may not give a completely reliable picture of the true state of household finances. The limitations of these survey data are explored in the box on pages 38–39.

Distribution of debt

Debt was not evenly distributed across the households who participated in the survey. Two out of every five households had no debts whatsoever, and among those who held debt, there was a wide variation in the amount owed.

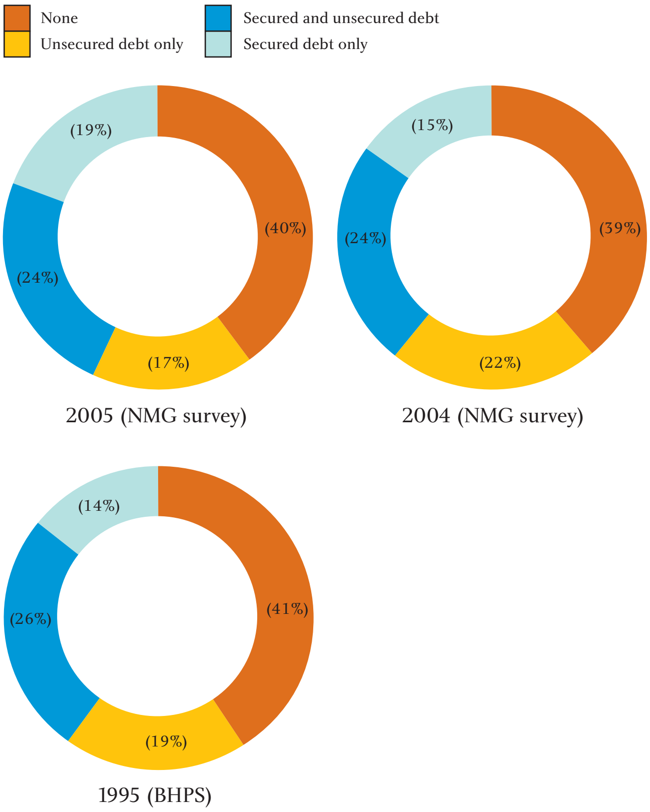
The fraction of households in the survey who did not hold any debt was unchanged on a year ago. In fact, the proportion without debt was little changed on a decade earlier (Chart 1).

However, there was a shift during the past year in the fraction of the sample holding different types of debt over the year to September 2005. The fraction of households with mortgages (debt secured on property) had risen (from 39% to 43%), and the fraction with unsecured debt had fallen (from 46% to 41%).

The survey indicates that the amount of debt held by indebted households increased over the year to September 2005 with secured debt continuing to account for the lion's share (almost 90%).(4) The distribution of that debt burden remained uneven. Of those holding secured debt, almost one in four had secured debts of less than £20,000, while around one in six had secured debts in excess of £100,000 (Chart 2(a)). Similarly almost one in four of those with unsecured debts had debts of less than £500, while around one in six had debts in excess of £10,000 (Chart 2(b)). It is not easy to judge from Charts 2(a) and (b) whether the burden of debt became more or less evenly distributed over the year to September 2005.

(1) The raw survey data are provided at www.bankofengland.co.uk/publications/quarterlybulletin/nmgsurvey2005.xls.
(2) The previous surveys, which were carried out in September 2003 and 2004, are discussed in Tudela and Young (2003) and May, Tudela and Young (2004) respectively.
(3) The British Household Panel Survey (BHPS) data used in this article were made available through the UK Data Archive. The data were originally collected by the Economic and Social Research Council Research Centre on Micro-social Change at the University of Essex, now incorporated within the Institute for Social and Economic Research. Neither the original collectors of the data nor the Archive bear any responsibility for the analyses or interpretations presented here. For more details on the BHPS see Cox, Whitley and Brierley (2002).
(4) Consequently homeowners account for the vast majority of debt.

Chart 1
Households' debt holdings (proportion of respondents)



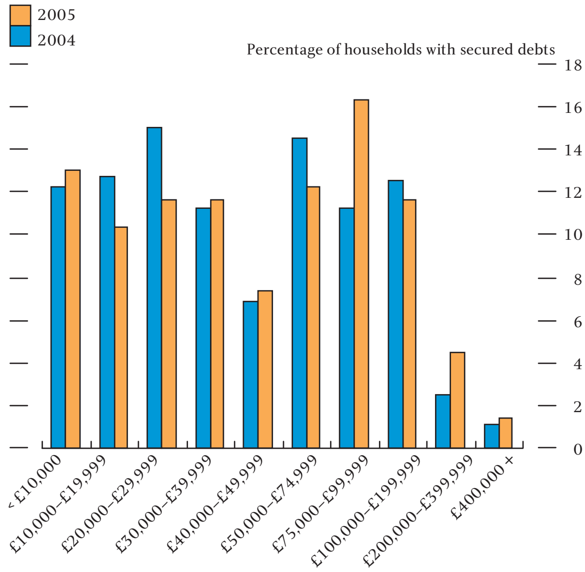
Sources: BHPS, NMG Research and Bank calculations.

One way to identify shifts in the distribution of debt is to use a so-called Lorenz curve.

The Lorenz curve traces out the cumulative share of successive people in the sample against the cumulative share of total debt accounted for by those people, when the sample is arranged from the lowest to the highest amount of debt held. If debt was equally distributed across the sample (all individuals held the same amount of debt), the Lorenz curve would lie on the 45˚ line. At the other extreme, if one individual held almost all the debt, the Lorenz curve would lie close to the x and y axes. So the further the Lorenz curve is from the 45˚ line the more unequal the distribution of debt.

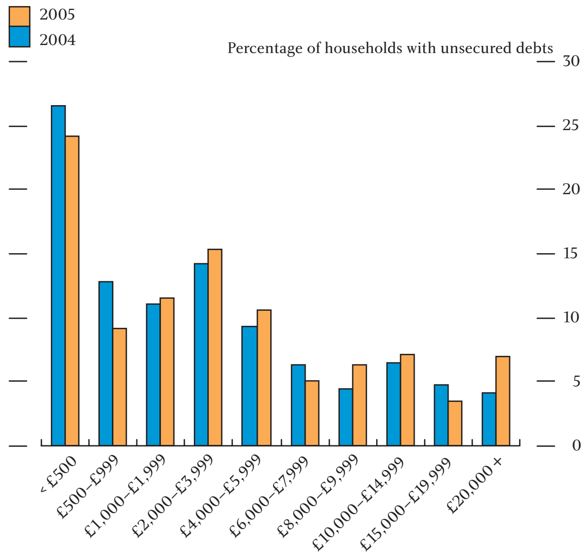
Chart 3 indicates that the distribution of debt (across those households holding some debts) was broadly unchanged on a year earlier. The distribution remained highly skewed: a small fraction of the sample continued to account for a large proportion of the debt.

Chart 2
The distribution of debt
(a) Secured debt



Sources: NMG Research and Bank calculations.

(b) Unsecured debt



Sources: NMG Research and Bank calculations.

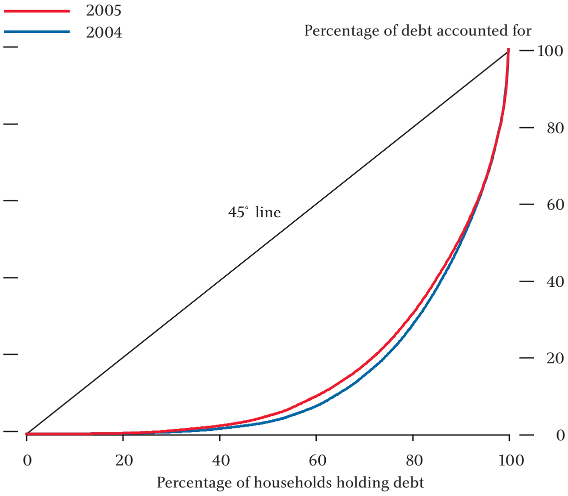
Affordability of debt: the costs of servicing debt

A key question for policymakers is whether debt is affordable. One way of answering that question is to compare households' debts to the resources they currently have at their disposal to service them.

Measures of affordability typically focus on the share of household income currently devoted to servicing debt. Like the distribution of debt, the distribution of gross annual income[1] was highly skewed across the sample:

(1) In most cases household income is defined by labour income plus any government benefits the household receives. But some households will also receive income from investments.

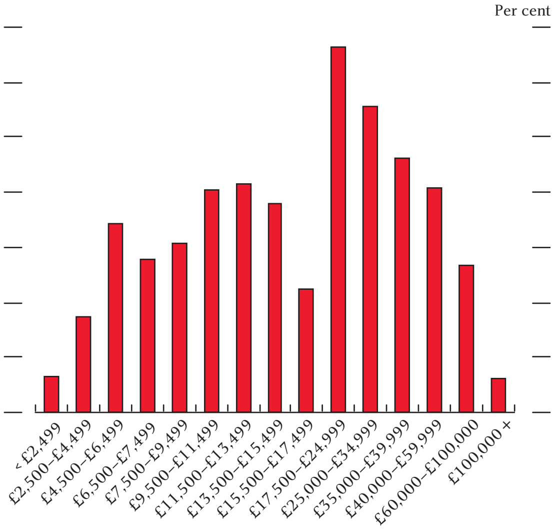
Chart 3
Distribution of debt: the Lorenz curve



Sources: NMG Research and Bank calculations.

half of the sample earned less than £17,500 a year, but a quarter of the sample earned more than double that amount (Chart 4). The question is: do the households with the largest debt burdens (in terms of interest and principal repayments) also have the highest incomes to service those obligations?

Chart 4
Distribution of gross annual income

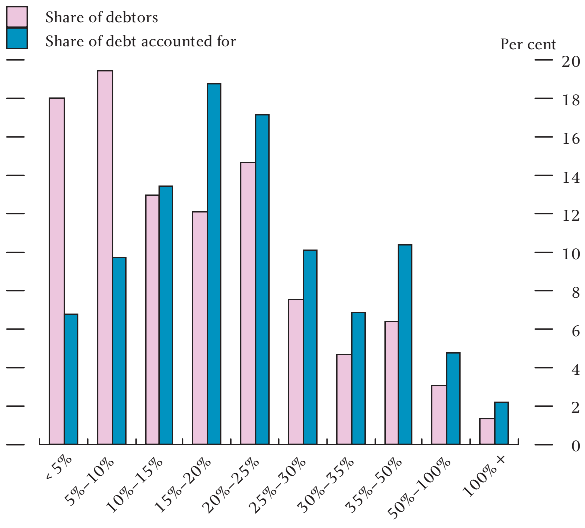


Sources: NMG Research and Bank calculations.

The problem with this measure of affordability is that it focuses on the amount of income that a household currently earns. Whether the current debt burden proves to be affordable will depend on how income evolves in the future relative to the costs of servicing debt. The current share of household income devoted to servicing debt — or current affordability — may be a poor guide to affordability in the future. Income may rise, allowing households to devote a smaller share of their budget to servicing debt.(1) So debts which look unaffordable today, given the current levels of income and interest rates, may not be a cause for concern if income is expected to increase significantly in the future. But future income streams are not guaranteed, and if official interest rates rise the costs of servicing debt are also likely to rise. So debts which look affordable under current income and interest rates may not be affordable in the future if unemployment or interest rates rise.

Over three quarters of the sample spent less than a quarter of their income on debt servicing, and they accounted for two thirds of all debt owed by households in the sample (Chart 5).(2) That reflects the relatively low level of interest rates and the fact that the vast majority of debt is secured on property and typically repaid over several decades. But there was a small minority of households who devoted most of their income to servicing debt. Some of these households also held unsecured debts on which they were not paying interest. As those zero-interest deals expire, these households may face further financial pressure.

Chart 5
Distribution of the ratio of debt servicing costs to income (across debtors)(a)



Sources: NMG Research and Bank calculations.

(a) The chart divides households with debts into different groups according to their debt to income ratio. The pink bar describes how common each group is, and the blue bar shows how much of the total stock of debt each group accounts for.

(1) One of the main reasons why people borrow money is to bring forward some of the consumption that future increases in income will ultimately allow.
(2) Debt servicing costs are defined in this article to include the payments that households make to their endowment mortgage scheme and any premia they pay for life insurance and critical illness cover as part of their mortgage.

Interpreting data from the NMG Research survey

The survey data discussed in this article provide an imperfect gauge of the current state of household finances. The survey covers only a small fraction of the total population and the data that those individuals provide cannot be validated. Like any survey, the quality of the data depends critically on the design of the sample and the accuracy of the responses. This box discusses these features of the NMG Research survey to help clarify its potential value.

A key determinant of the accuracy of any statistics produced from survey data (averages, proportions and other sample statistics) is the size of the sample. The larger the sample, the more likely it is that those sample statistics will approximate the population as a whole. The survey data discussed in this article were collected by NMG Research as part of their consumer tracking survey, MarketMinder. 1,923 people were interviewed between 23 and 29 September 2005, so the sample covers around 0.005% of the adult population of Great Britain. By the standards of other surveys, the sample is reasonable — it is around one fifth of the size of the main BHPS sample.

In practice, the sample size varies from question to question. The survey is voluntary, and not every person answers every question. Sometimes that will reflect the fact that people do not understand the question or do not know the answer. And sometimes it reflects the fact that people choose not to answer a question. The degree of non-response to the questions in the survey varies from zero in the case of questions about people's age to almost 50% in the case of those asked about their income. Unless otherwise stated, this article focuses on only those individuals who provided all the relevant information required to construct a particular chart.(1)

The implications of non-response will depend on the reason why individuals did not respond. If non-response is random then it leads to a reduction in sample size and the reliability of statistics produced from the data. But if non-response is correlated with individuals' characteristics, and in particular the answer that they would have given, then the responses obtained are likely to be misleading. That is because the subset of people who answer the question will not be representative of the population as a whole. For example, individuals earning large incomes may prefer not to say so — so the average income in the sample may be misleadingly low.

If the survey sample is not representative of the population it is unlikely that the data can provide a reliable guide to behaviour. Some demographic groups may be over or underrepresented in the survey sample. If so the survey is likely to produce misleading results whenever variables of interest, like income or debt, are correlated with demographic variables, like age or gender. The MarketMinder sample is randomly selected using standard sampling techniques to generate a sample which is broadly representative of the population.(2) In particular, each member of the sample is allocated a weight depending on their age and sex such that the composition of the weighted sample matches the composition of the population.(3) But this technique cannot correct for changes in the composition of the sample answering a particular question due to non-response.

People can make mistakes when they answer questions, so the survey data are likely to include errors. So long as the probability of people making mistakes is relatively low and those mistakes are small in size (and roughly zero on average) then the survey data should still be broadly informative.(4) But if people systematically misreport data — for example, if they underreport their debts — then the survey data will once again be unreliable.

One way to gauge how reliable the survey data are is to compare statistics produced from the data — like the average level of debt per household — to comparable statistics based on aggregate data. The

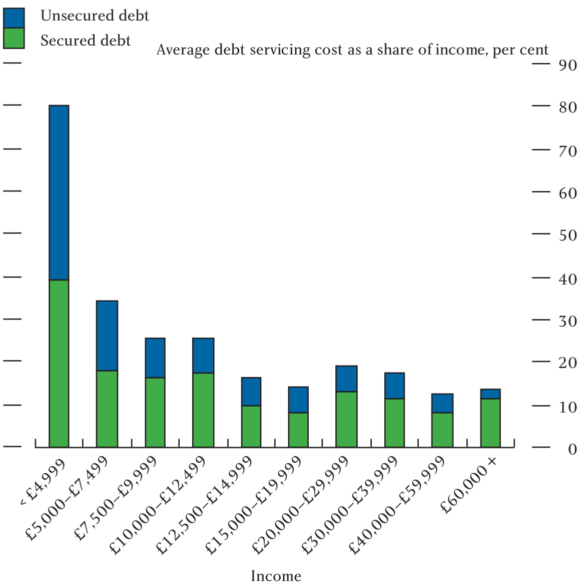
(1) For example, in Chart 11, 'The distribution of net worth', we focus on only those individuals who provide information on all their assets and liabilities.
(2) For more details on the design of the MarketMinder survey sample see the Appendix of May, Tudela and Young (2004).
(3) For more details see Redwood and Tudela (2004).
(4) This means that 'decimal point errors' (when people report £10 or £1,000 when they mean £100) are a cause for concern because these sorts of errors are highly unlikely to cancel out on average.

weighted sample has been designed so that it reflects the demographic composition of the population. But we do not know how representative the weighted sample is in terms of the distribution of assets, income and liabilities. If the sample is representative along these dimensions these statistics should be broadly comparable.

Average incomes and the average stock of debt held by households in the sample are lower than aggregate data imply. The latest NMG Research survey is quite typical in this regard: household surveys usually imply lower average levels of debt than is suggested by the aggregate data. That may indicate that either the survey sample is unrepresentative (whether in selection or through non-response) or that people are making systematic mistakes when answering questions. But the discrepancy could also reflect the fact that the official data and the questions in the survey are measuring different things. For example, people were asked to exclude credit card balances that they intended to pay off at the next payment date when questioned for the latest survey, whereas the official data include those debts. Nevertheless, this discrepancy does raise questions about how representative the survey sample is, and the results discussed in this article should be viewed in that light.

Those households who were devoting a large proportion of their income to servicing debt typically had low incomes. As a result they accounted for a disproportionately small share of aggregate consumption and the total stock of debt (Charts 5 and 6). So if a fraction of these households cut back on spending or defaulted on their debts, the impact on monetary or financial stability would be smaller than if their spending and debts matched those of the average UK household.

Chart 6
Ratio of debt servicing costs to income, by income (across debtors)



Sources: NMG Research and Bank calculations.

Income is not the only resource at households' disposal to service their debts. Households can also liquidate assets to pay debt. For a more complete picture of the state of household finances, we need to consider the assets that households own as well as their liabilities.

Distribution of assets

At the aggregate level the household sector has been building up both sides of its balance sheet, by accumulating assets as well as liabilities. Some of those assets may be illiquid (households may not be able to sell them easily to release funds) and their future value is uncertain. Nevertheless, a large stock of assets does provide households with a financial cushion which they can use to fund consumption or service debt should their income fall. The issue for policymakers concerned with the extent of financial distress is whether the households with the largest debts also hold the most assets.

The largest asset that most households own is property, typically their home. Around one in ten households in the survey also said they owned a second property. Housing is a particularly illiquid asset and the current price of a house may not be a reliable guide to the amount of money that a homeowner could realise if they were to sell their house in the future.(1)

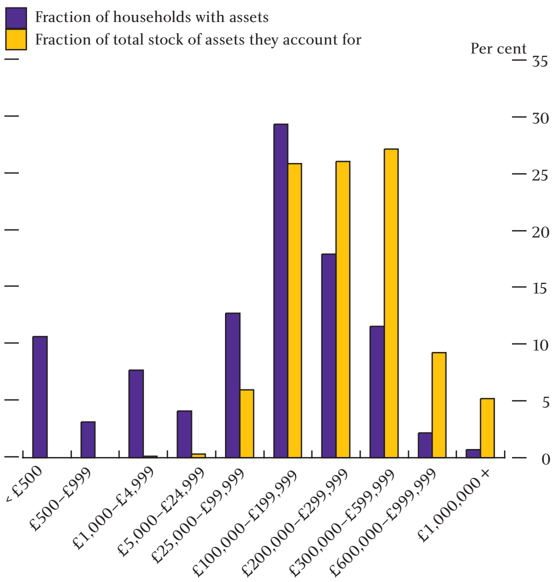
Most households also reported holding some financial assets. These were typically held in one or two financial instruments at most, with savings accounts being by far the most popular. There was a marked variation in the amount of financial wealth held by different households. The typical — or median — household had only a small

(1) The sort of shock that leads to an increase in the incidence of financial distress at the household level — like an increase in interest rates or the unemployment rate — could also affect house prices.

stock of financial assets. But a small number of households owned a much larger stock of assets.

If we combine the wealth held in financial assets and housing, we can create a measure of gross wealth — that is, the total value of all assets held by each household. The distribution of gross wealth across households was highly unequal (Chart 7). Almost one in five households reported having no assets whatsoever. And of those who reported having some assets, a quarter held less than £25,000. At the other extreme, 3% of households held as much as one sixth of the total stock of assets. Nevertheless, Chart 8 indicates that the distribution of assets (across those who held some assets) was less unequal than the distribution of liabilities (across those who held some debts).

Chart 7
Distribution of gross wealth(a)



Sources: NMG Research and Bank calculations.

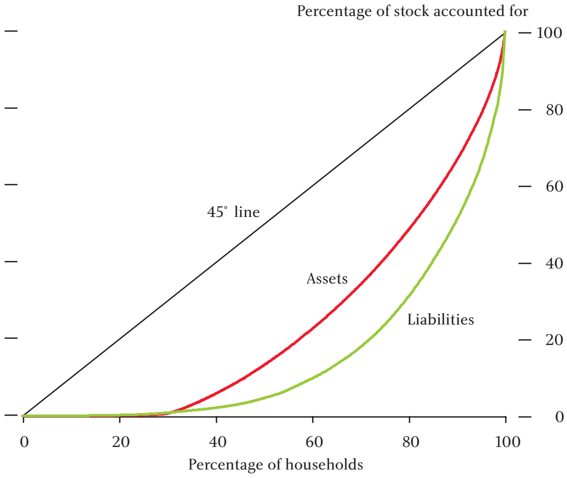
(a) The chart divides households with some assets into different groups according to the amount of wealth owned. The purple bar describes how common each group is, and the yellow bar shows how much of the total stock of gross wealth each group accounts for.

Net worth

The previous sections have identified that the distributions of both assets and liabilities were highly skewed. The overall state of households' balance sheets is determined by their net worth — that is, the relative size of their assets and liabilities.

Housing accounted for the largest items on both sides of the typical surveyed household's balance sheet: their mortgage was their main liability, and their house their

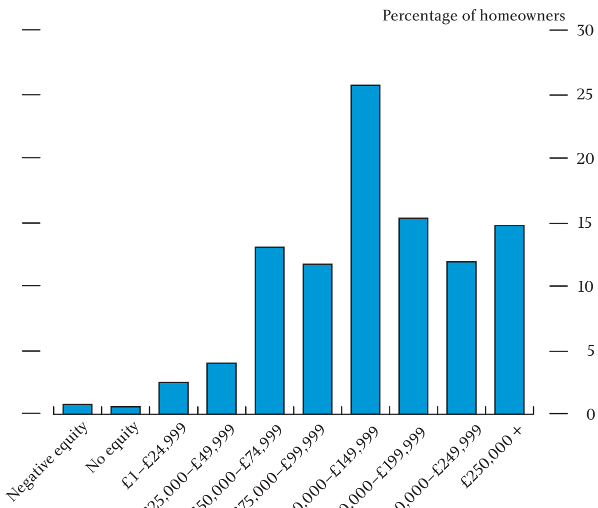
Chart 8
The Lorenz curves of the distributions of assets and liabilities



Sources: NMG Research and Bank calculations.

main asset. For most homeowners the current value of their house exceeded the outstanding mortgage on their property. In other words, most homeowners had some equity in their home, so their house was a source of net worth. However, similar to the previous survey, there were a very small number of households in the survey who reported having negative equity (Chart 9).(1)

Chart 9
Housing equity(a)



Sources: NMG Research and Bank calculations.

(a) Percentage of those who own a property.

Housing equity is created whenever mortgagors repay a fraction of their debts or their property increases in value. As a result, older homeowners tend to enjoy more equity in their current property because they will have

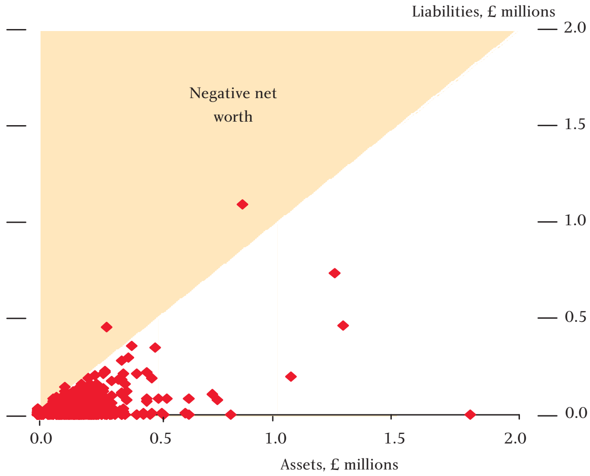
(1) Although house prices have been rising on average, some houses could have fallen in value. But some of the negative equity in the survey data could reflect measurement error, that is people making mistakes when they report the current value of their house or their mortgage. The box on pages 38–39 discusses measurement error.

paid off a larger proportion of their mortgage and because the value of their home will have risen over a longer period of time.

Not all homeowners hold a large amount of equity in their home, even if they have been living in the property for some time. Some homeowners will choose to spend some or all of the equity they have built up.(1) One motivation for withdrawing equity is to fund consumption or to service debt in emergencies — the interest rates charged on secured debt tend to be lower than those on unsecured loans. The survey suggests that a small (but increasing) number of households are using housing equity as a safety valve: of the one in eight mortgagors who extended their secured debts over the past year, a quarter mentioned paying off other debts as one of the reasons why they took on more secured debt.

Chart 10 plots the liabilities of each household against their assets. A large number of households (about one in six of those who reported information on all their assets and liabilities) are clustered on the origin, indicating that they had no assets or liabilities. The net worth of the remainder of the sample can be identified by comparing their position relative to the 45˚ line, which indicates households whose assets exactly matched their liabilities. Households with more assets than liabilities — those with positive net worth — lie below the 45˚ line. Chart 10 indicates that the majority of households fell into this category.

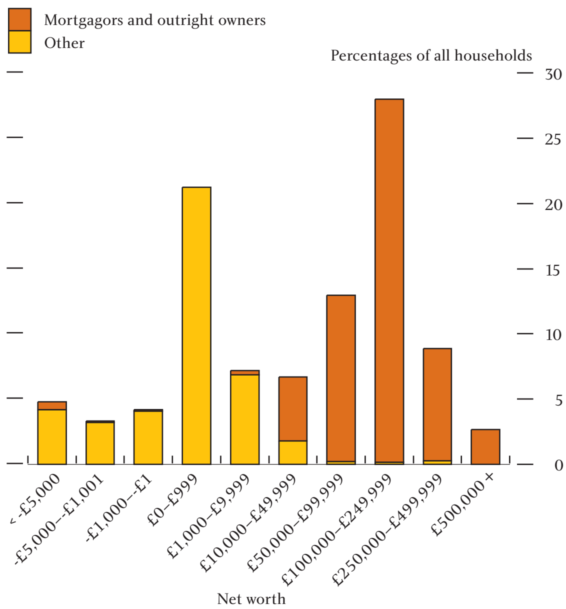
Chart 10
The joint distribution of assets and liabilities



Sources: NMG Research and Bank calculations.

Those who lie above the 45˚ line had negative net worth — that is their debts exceeded the value of any assets they held. Almost one in eight of the households in the survey who provided information on their assets and liabilities were in this position. In most cases these households had relatively little debt (typically around several thousand pounds) and little if any assets to draw upon, so these negative net worth households typically lie close to the origin. Most homeowners had housing wealth (Chart 9), so these negative net worth households were almost exclusively renters (Chart 11) whose unsecured debts exceeded the value of any financial assets they held.(2)

Chart 11
The distribution of net worth



Sources: NMG Research and Bank calculations.

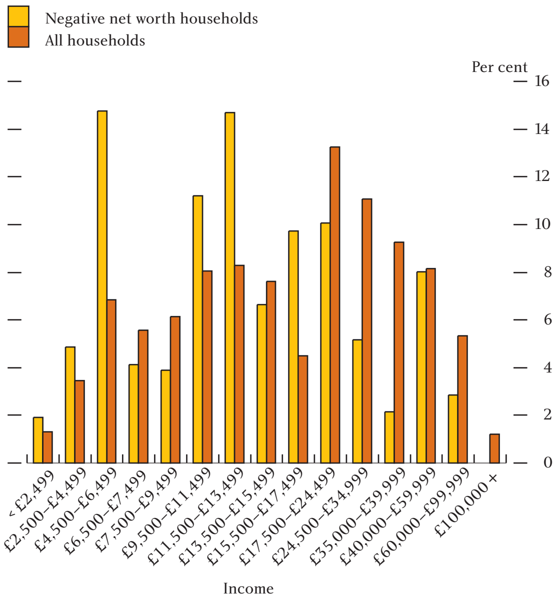
These negative net worth households also tended to have below-average incomes (Chart 12). About half of the households in the sample earned more than £17,500 a year. But only around a quarter of these negative net worth households earned more than £17,500 a year.

Households in distress

This article has discussed the current state of household balance sheets. The previous two sections have identified that a small proportion of households were in a stretched or potentially difficult financial position. Of these, some spent a sizable fraction of their income

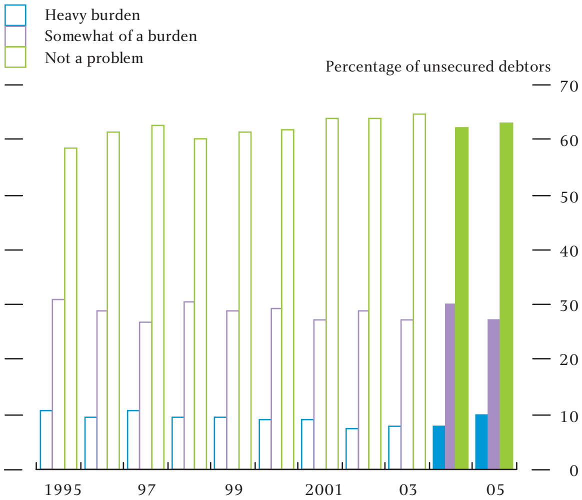
(1) If they spend the money on home improvements there is no net withdrawal of equity. The increased liability should be broadly offset by the increase in the value of their asset (their home).
(2) There are a couple of homeowners who report severe negative equity on their property.

Chart 12
Income and the incidence of negative net worth



Sources: NMG Research and Bank calculations.

Chart 13
The burden of unsecured debt(a)



Sources: BHPS, NMG Research and Bank calculations.

(a) Data prior to 2004 are calculated using information from the BHPS, and are indicated by the hollow bars.

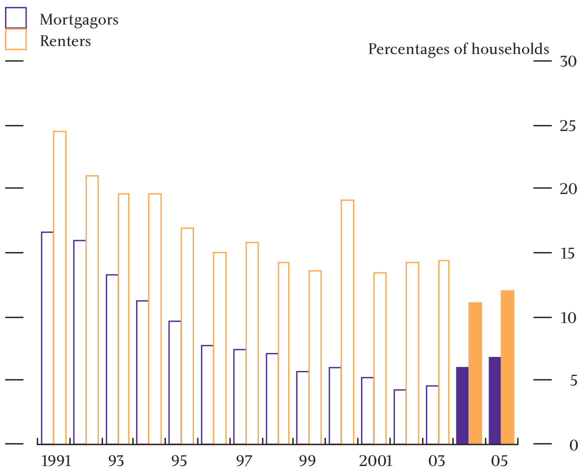
servicing debt; and some did not have a buffer of financial assets or housing equity that could be liquidated in emergencies. These households could run into difficulties in the future if the costs of servicing debt rise or their income falls. In this section of the article, we focus on households who were already in distress.

The survey indicates that around one in ten of those households who had unsecured debts found those debts a heavy burden, and around one in five found them somewhat of a burden (Chart 13). Compared with the previous year, the proportion finding their debts a heavy burden was a little higher. Typically, these households had relatively low incomes and some, but by no means all, had negative net worth.

The 2005 NMG Research survey included a set of questions which investigated people's attitudes towards bankruptcy. People were asked whether they would consider bankruptcy if they were unable to keep up with their debts. The overwhelming majority of households (87%) who gave their views on the subject said they would only consider bankruptcy as a last resort or would never consider it under any circumstances. A small proportion (6%) said they would seriously consider it as an option, although the proportion was a little higher for those who found their unsecured debts a heavy burden (14%). But as this question was not asked in previous surveys, it is unclear whether there have been any changes in households' attitudes to bankruptcy over time.

The proportion of households who reported problems paying for their accommodation (the mortgage in the case of those who had bought a house, or the rent in the case of those who had not) remained low by historical standards, but edged up on last year (Chart 14). The survey provides some additional information on how households have tried to resolve these problems, where they have occurred. The majority of those reporting problems responded that they had cut back on consumption, while a significant minority had borrowed more money.

Chart 14
Problems paying for accommodation(a)



Sources: BHPS, NMG Research and Bank calculations.

(a) Data prior to 2004 are calculated using information from the BHPS, and are indicated by the hollow bars.

Conclusion

This article has described recent survey evidence on the distribution of assets, income and liabilities across a sample of British households. The survey reveals a wide variation in the state of their balance sheets in September 2005. The distributions of assets, income and liabilities across households were highly skewed — though, on the whole, little changed from a year earlier. In each case, a relatively small proportion of households accounted for the lion's share of assets owned, income earned and debts owed by the whole sample. Those households with large debts also tended to hold a large asset: for every mortgage there was a property. Most households' assets exceeded their liabilities, largely because most surveyed households owned property in which they had some equity. But there were some households whose liabilities exceeded their assets. Typically they held few assets (in particular they did not own a property), had unsecured debts, and relatively low incomes.

Only a small number of households were having difficulties paying their debts, and they tended to be low-income households struggling with unsecured debts, and accounted for a very small proportion of the total stock of debt owed by British households. The vast majority of debt was secured on property by mortgagors, of whom very few reported problems servicing that debt. The survey indicated that very few people viewed bankruptcy as a solution to their debt problems.

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